# TEACHING AND LEARNING INNOVATION EXPO 2021 - DIGITAL POSTER EXHIBITION

## INTERACTIVE SESSION FOR THE DIGITAL POSTER EXHIBITION

The Interactive Session for the Digital Poster Exhibition will be held on 28 July 2021, from 12:45 to 14:00 (Hong Kong Time).

The session is divided into TWO breakout sessions. Poster presenters will be in the zoom meeting room during the designated breakout session, to meet with participants and answer their questions toward the poster. Click “Join the Meeting” button placed below each of the poster abstract and have a live zoom chat with the presenter(s) of the poster you are interested in.

## POSTER AWARDS

- Two Q&A Sessions for shortlisted candidates of Poster Awards scheduled on (i) 26 July from 14:00 to 15:40 (Online Venue: Room B) and (ii) 27 July from 15:40 to 16:35 (Online Venue: Room B).
- For the detailed rundown of the two sessions, please click here.
- Click the "#Shortlisted" tag for viewing the shortlisted posters.

## MEMBERS OF THE POSTER AWARDS JUDGING PANEL

- Professor Chetwyn CHAN, Vice President (Research and Development), The Education University of Hong Kong
- Professor Ricky KWOK, Vice President (Student and Support), The Open University of Hong Kong
- Professor Carmel McNAUGHT, Emeritus Professor of Learning Enhancement, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

## NOTES

- All sessions listed in the event programme are scheduled in Hong Kong Time (UTC/GMT+8).
- Filters are available for filtering posters by Session (#Breakout 1: 28 July 12:45 - 13:20 / #Breakout 2: 28 July 13:25 - 14:00) or by institutions (#CUHK / #Sister Universities).

## USEFUL LINKS

- Expo 2021 website: https://www.elearning.cuhk.edu.hk/expo2021
- Event programme: https://www.elearning.cuhk.edu.hk/expo2021-programme
- Digital poster exhibition site: https://www.cuhk.edu.hk/eLearning/expo2021/posters *(access restricted to registered participants only)*
- Event access: https://www.elearning.cuhk.edu.hk/expo2021-event-access *(access restricted to registered participants only)*

## AREAS OF INTEREST

Central Unit Platforms and Services
Curriculum/Course Design
MM, SPOC and MOOC
New Normal in Education
Student Corner
Student-oriented Teaching and Learning
Tools, Platforms and EduTech

**Session**

Breakout 1: 28 July 12:45 - 13:20
Breakout 2: 28 July 13:25 - 14:00

**Submission**

CUHK | Sister Universities | 61 Poster(s)

# A Blended and Interactive Online Courseware in Bioethics that Bridges Art, Bioethics and Medicine for Learning Advancement and Flipped Learning


**Molly P. M. Wong*,[1], Olivia M. Y. Ngan[2], Taylor L. H. Tang[3]**

[1] School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong.
[2] CUHK Centre for Bioethics, Faculty of Medicine, The Chinese University of Hong Kong.
[3] Information Technology Service Center, The Chinese University of Hong Kong.
*Corresponding Author and Principal Investigator


## Challenges and Opportunities
## A Flipped Classroom under the COVID-19 Influence

In view of the outbreak of COVID-19, online teaching, blended courses (also known as hybrid or mixed-mode courses), and often a flipped classroom approach have been implemented in the University and many other educational institutions. We will introduce an interactive, multifunctional e-learning Courseware in Bioethics that we developed, which strongly bridges the gap between art, bioethics and medicine.

## Objectives

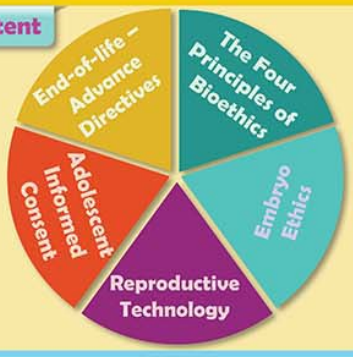
To enhance students' interests in bioethics and related medical advancement research and technology, as well as to enrich their learning in arts, bioethics and medicine.

To help students to recognize and appreciate different policies and regulation of medical advancement research applied in Hong Kong.

To enhance students' understanding of the basic principles of bioethics, so that they would be able to express bioethics through arts, as well as to critically analyze and debate scientific and ethical issues pertinent to modern-day scientific and clinical research.

## Methodology

### Content




### Formats

Doctor-Patient Role play Videos

Short Interactive Animations for Core Concepts

Online Discussion Platforms

Pop-up Questions and Key Terms

Q&A Sessions available at the end of each micro-module

## Results and Discussion

**These interactive activities introduced by our courseware enable students to:**

- Engage in the learning of bioethics, reproductive technologies and medical advancement technology
- Find learning bioethics more fun, interesting and entertaining
- Enhance their creativity and critical thinking
- Engage more actively in classes for "Flipped Classroom" Approach

## Pilot Study & Students Feedback

**Year 2 - Medical Students**

A. I strongly agree that the online activities introduced by the Courseware enable students to engage in the learning of bioethics.

B. I believe that effective learning is best achieved by F2F teaching supplemented by online learning courseware. This combination ensures the students are fully engaged both inside and outside the classroom, maximizing their attention and willingness to interact in class.

C. The animations not only provide general background information, but also include many other provoking details. They are more attractive than journals or articles before students grasp the core of the bioethics concepts.

D. I strongly agree that this blended and interactive online Courseware in bioethics could bridge art, bioethics and medicine for learning advancement and flipped learning.

## Future Work

Results obtained from focus group interviews and online survey questionnaires on the effectiveness and efficiency of the Courseware, targeted mainly medical students in their pre-clinical years (Year 1 – 3) in the MBChB program, will be analyzed. The impact of the blended learning with the use of this e-learning Courseware in Bioethics will also be investigated.

## Conclusion

Taken together, our Courseware strengthens education in art, bioethics and medicine, significantly raises students' awareness of socio-ethical concerns from the advancement of medical technology, and provides a useful learning tool in medical teaching.


Acknowledgements
This project is funded by the Courseware Development Grant Scheme 2019-2022, The Chinese University of Hong Kong.

## P01: A Blended and Interactive Online Courseware in Bioethics that Bridges Art, Bioethics and Medicine for Learning Advancement and Flipped Learning

**Presented by**
Dr Molly Pui Man WONG, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Olivia Miu Yung NGAN, Centre of Bioethics, The Chinese University of Hong Kong
Mr Taylor Lik Hang TANG, Information Technology Services Centre, The Chinese University of Hong Kong

**Abstract**
We will introduce an interactive, multifunctional e-learning Courseware in Bioethics that we developed, which strongly bridges the gap between art, bioethics and medicine. First, a series of animated videos introducing selected topics of bioethics and related issues will be discussed. Then, a set of problem-based practical videos ("interactive doctor-patient role play") along with discussion questions and online platforms will be showcased. These activities introduced by our Courseware enable students to engage in the learning of bioethics, reproductive technologies and medical advancement technology and enhance their creativity and critical thinking. Through the use of this interactive Courseware in a flipped classroom approach, students could engage more actively in classes and find learning bioethics more fun, interesting and entertaining. Taken together, our Courseware strengthens education in art, bioethics and medicine, significantly raises students' awareness of socio-ethical concerns from the advancement of medical technology, and provides a useful learning tool in medical teaching.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# Using the Zoom Platform to Conduct Virtual Pharmaceutical Sciences Laboratory Classes

Kenneth KW To
School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong

ePoster submission reference # 008

## Abstract

**Background**: Most pharmaceutical science courses have both lecture and mandatory laboratory (lab) components. Lab work is designed to provide students hands-on experience using instruments and performing chemical analysis. Apart from understanding theoretical content, fundamental skills such as instrument operation, data collection and analysis are developed. In a typical on-campus lab class, students usually feel overwhelmed with experimental procedures. Many of them only follow the protocol without thorough understanding and they many not develop the necessary skills.

**Aim**: This project aimed to design virtual labs for Pharmaceutical Chemistry course (when face-to-face class is not feasible or to serve as self-learning module before attending on-campus labs).

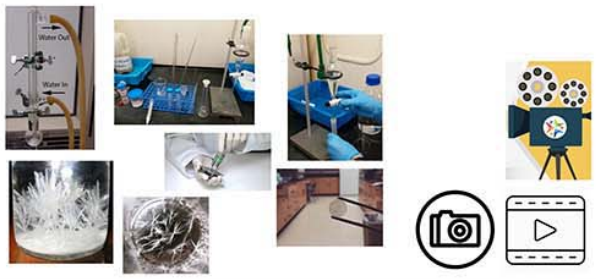
**Project implementation**:
(i) Prepare videos and photos for lab simulations
(ii) Run pilot virtual lab with a small cohort of students and focus group interview
(iii) Provide virtual lab to regular class
(iv) Analyze key performance indicators (KPIs)

**Major findings**:
Favorable learning outcomes from the virtual labs were reflected by the following KPIs:
- Over 90% students rated their learning experience "excellent" or "very good"
- Positive comments from students in focus group interview
- 100% students participated in online poll during virtual labs
- 95% students participated in chat room discussion for at least one time
- Average marks from student lab assignment were not significantly different from historical data from traditional on-campus labs in previous 3 years

**Conclusion**: The Zoom-based virtual labs provided a brand-new interactive learning environment for adapting and implementing the "New Normal" for pharmaceutical science education.

## Project Implementation

### ① Preparation of videos and photos for lab simulations



### ② Pilot virtual lab via Zoom to small cohort of students

- Six Year 3 pharmacy students
- View introductory materials via Zoom
- Follow instructions to use the online simulations
- Students record their observations and discuss data analysis

**Focus group discussion to collect feedback**

**Revise logistics and conduct the virtual lab to a regular class**

Year 3 Medicinal Chemistry class
(class size: 43 students)

### ③ Representative activities at virtual lab

☐ Explaining background information

☐ Using video to show procedures

## Project Implementation

### ③ Representative activities at virtual lab

☐ Using photo to illustrate procedures

☐ Using polls to engage active learning

☐ "Perfect" vs "Defective" procedure

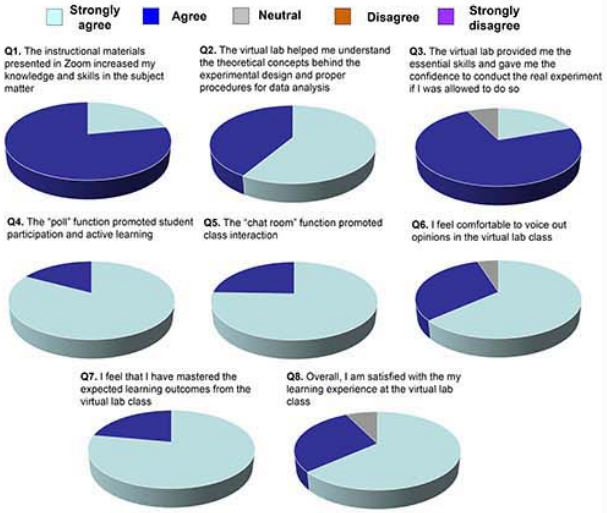
☐ Discuss data analysis

☐ Discuss lab safety precaution

## Major Findings

### Key Performance Indicators (KPIs) for evaluating learning outcomes

☐ Favorable feedback from students' satisfaction survey

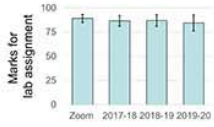



☐ Active participation in polls – 100 %

☐ Active participation in chat room discussion > 95% for at least one time

☐ Favorable comments from focus group discussion
- Very trendy!
- Fun
- Facilitate active learning
- Love to type in opinion / discuss in the chat room .....

☐ Lab assignment performance was comparable with previous years when face-to-face lab was conducted




## Acknowledgement

Funding source: TDLEG, Project code 4170708

# P02: Using the Zoom Platform to Conduct Virtual Pharmaceutical Sciences Laboratory Classes

**Presented by**
Prof Kenneth TO, School of Pharmacy, The Chinese University of Hong Kong

**Abstract**
Background: Most pharmaceutical science courses have both lectures and mandatory laboratory (lab) component. Lab work is designed to provide students hands-on experience using instruments and performing chemical analysis. Apart from understanding theoretical content, fundamental skills such as instrument operation, data collection and analysis are developed. In a typical on-campus lab class, students usually feel overwhelmed with experimental procedures. Many of them only follow the protocol without thorough understanding and they may not develop the necessary skills. Aim: This project aimed to design virtual labs for Pharmaceutical Chemistry course (when face-to-face class is not feasible or to serve as self-learning module before attending on-campus labs) Project implementation: (i) Prepare videos and photos for lab simulations (ii) Run pilot virtual lab with a small cohort of students and focus group interview (iii) Provide virtual lab to regular class (iv) Analyze key performance indicators (KPIs) Major findings: Favorable learning outcomes from the virtual labs were reflected by the following KPIs: - Over 90% students rated their learning experience "excellent" or "very good" - Positive comments from students in focus group interview - 100% students participated in online poll during virtual labs - 95% students participated in chat room discussion for at least one time - Average marks from student lab assignment were not significantly different from historical data from traditional on-campus labs in previous 3 years. Conclusion: The Zoom-based virtual labs provided a brand-new interactive learning environment for adapting and implementing the "New Normal" for pharmaceutical science education.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

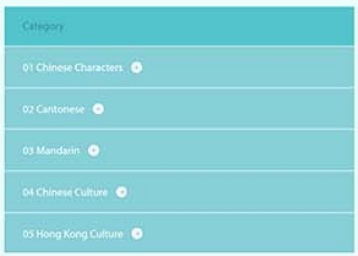
**Authors: Dr. Felix Chao, Dr. Ocean Siu & Dr. Stephan Stiller**

中國語文及文化自學資源網

# Online Platform for Self-Learning Resources of Chinese Language and Culture

The interest in learning Chinese language and Chinese culture have grown rapidly in the recent years. A vast number of self-learning materials has been developed. However, the quality of these materials is varied, and the learning need of the learners are quite different. Hence, an interactive online platform with flexible complementary supports that could help learners to find the suitable resources and evaluate one's own learning would be very helpful.

In order to meet this need, the Online Platform for Successful Chinese Learning (OPSCL) aims to promote independent and lifelong learning through a biliterate (English and Chinese) online platform that contains reviews of learning materials suitable for autodidactic study.


**Five areas for self-learning**

**Search for resources by various criteria**


**A self-assessment system is provided**

## Expect to be launched in August, 2021!

## P03: Online Platform for Self-Learning Resources of Chinese Language and Culture

**Presented by**
Dr Felix CHAO, The Independent Learning Centre, The Chinese University of Hong Kong
Dr Stephan STILLER, The Independent Learning Centre, The Chinese University of Hong Kong

**Abstract**
The interest in learning Chinese language and Chinese culture have grown rapidly in the recent years. A vast number of self-learning materials has been developed, however, the quality of these learning materials is varied and the learning need of the learners are quite different. Hence, an interactive online platform with flexible complementary supports that could help users to find the suitable materials and evaluate one's own learning would be very helpful. In order to meet this need, the Online Platform for Successful Chinese Learning (OPSCL) aims to promote independent and lifelong learning through a biliterate (English and Chinese) online platform that contains reviews of learning materials suitable for autodidactic study in the 5 big areas of Mandarin, Cantonese, Chinese characters, Chinese culture, and Hong Kong culture. The focus is on online learning materials that are available for free. Each review consists of description of the learning resource and a review thereof. Users can search for resources by various criteria, rate the resources, and write their own comments about them. A self-assessment system is provided so as to recommend an entry point to the users according to their current level. Students can find various learning supports provided by the ILC for their intended study. The design of the OPSCL would have help to promote autonomous learning, life-long learning, deep learning and enhance e-literary.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Zoom-KEEP eLearning, Discussion and Assessment Platform for CMBI4001/LSCI5601

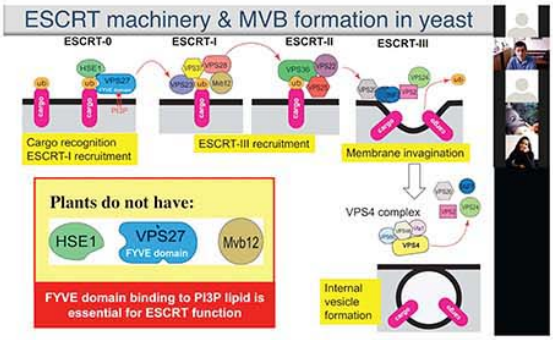
RGC-AoE Centre for Organelle Biogenesis and Function, Centre for Cell and Developmental Biology, School of Life Sciences, The Chinese University of Hong Kong

***Ms. Jenny LAI & Prof. Liwen JIANG***

**26 July 2021**

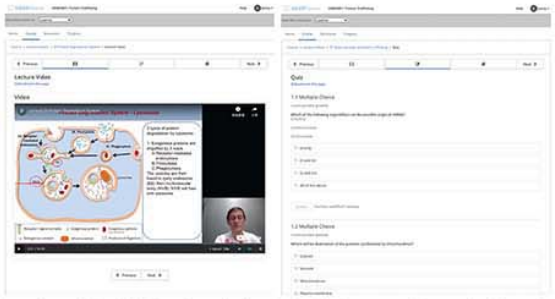
## Intergrated Zoom Lectures

*CMBI4001/LSCI5601 Protein Trafficking* is an one-credit double-coded course designed for senior undergraduate students and postgraduate students. In the first term of 2020-2021, Prof. Jiang has delivered the whole course in an online mode via Zoom for the first time. In this project we aimed to develop an integrated/interactive Zoom eLearning, discussion and assessment platform with various simulating components to help students to adapt to the new teaching mode and to be better engaged in the eLearning.




## Zoom-KEEP Platform

We have developed a flipped classroom on the KEEP Platform with online videos and quizzes to enhance self-learning in protein trafficking. We required students to watch the videos and finish the quizzes on KEEP before the Zoom lectures, so that they could have a basic knowledge of the lecture content prior to the Zoom lectures. The videos included Lecture Videos which explain scientific knowledge in protein trafficking and Publication Videos which illustrate the latest publications of related topics.

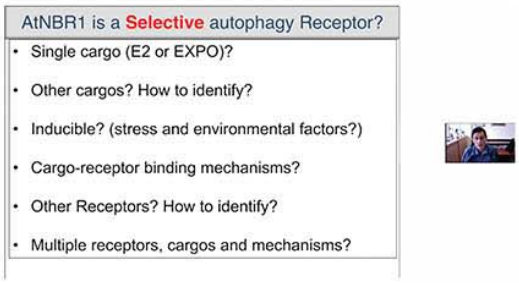


Interface of the KEEP online platform including lecture video and online quiz

## Simulating Components

### *1. Discussion Time in Every Lecture*

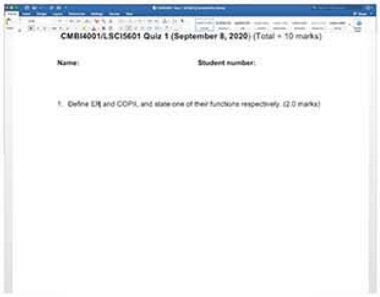
We arranged breakout rooms in Zoom lectures for more efficient small group discussion. We also assigned discussion mark to students in order to encourage them to discuss and interact.





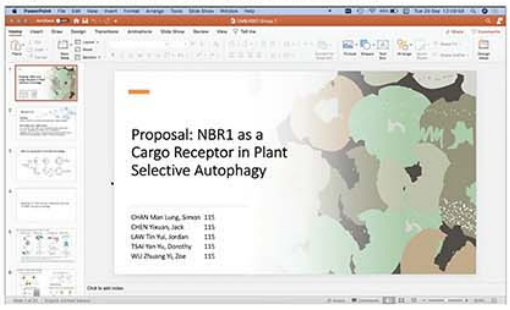

### *2. In-Class Quiz*

To ensure high attendance rate of the students, we showed the in-class quiz questions to students during the Zoom lectures and asked students to submit the answers in limited time.




### *3. Presentation and Discussion*

Students were asked to share their PowerPoint and present on Zoom. Advanced Zoom functions (e.g. breakout room group discussion and real time annotation) were adopted to increase discussion after the presentations.




*The project is supported by Teaching Development and Language Enhancement Grant for 2019-22*

# P04: Zoom-KEEP eLearning, Discussion and Assessment Platform for CMBI4001/LSCI5601

**Presented by**
Ms Jenny LAI, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
Due to the COVID-19 pandemic, the University has announced that all classes will be conducted online in the 2020-21 academic year until such time as the pandemic stabilizes. CMBI4001/LSCI5601 Protein Trafficking is a one-credit double-coded course designed for senior undergraduate students of Cell and Molecular Biology (CMB) Program as well as Year 1 or 2 research postgraduate (RPG) students of School of Life Sciences (SLS). For the first time, Prof. Jiang has delivered the whole course in an online mode via Zoom. Supported by the Special Funding Scheme to Enhance Student Engagement and Address Student Learning Needs, in this project we aimed to develop an integrated/interactive Zoom eLearning, discussion and assessment platform for CMBI4001/LSCI5601 with the following simulating components to help students to adapt to this new teaching mode and to be better engaged in the eLearning: 1. Complement with a KEEP Online Platform 2. Discussion Time in Every Lecture 3. In-Class Quiz 4. Presentations and Discussions Prof. Jiang had delivered 4 Zoom lectures (3 hours for each week) in September to October 2020. The four simulating components were incorporated into the Zoom lectures to help students to be better adapted to this new teaching mode. The Zoom lectures resulted in a 100% attendance rate and good engagement of the students in the lecture discussion. During students' online presentation, with clear instructions and timely assistance provided by Prof. Jiang and the teaching assistant, the presentations ran smoothly with plenty of interactions and discussions among students and Professor. The 4 Zoom lectures were also recorded and developed into teaching videos timely for student to revise the lecture contents and for future use in teaching.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

# "Science Mobile" - Learning Science with a Smartphone

**Dr. Kendrew Kin Wah MAK*, Dr. Cheung-Ming CHOW#**

*Department of Chemistry, CUHK, #School of Life Science, CUHK

## Introduction

**"Science Mobile" is developed as a portable learning platform to facilitate students learning science concepts across different science disciplines in daily life. All learning objects are hosted by a web-based learning management platform. They can access the learning objects by scanning the corresponding barcodes, QR codes, and RFID, or by searching with relevant keywords and hashtags. Students can explore the relationship among different learning objects through hashtags and in-text hyperlinks. The topics are categorized into different learning modules to connect the learning objects into different learning pathways. In some courses, students are engaged to create learning objects using the content editor panel to encourage the active participation of the students and promote interactive learning.**

Download on the App Store

GET IT ON Google Play

## User guide

YouTube

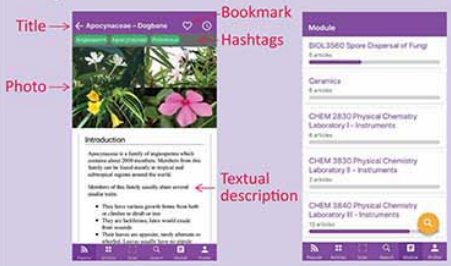
① Looking for QR codes / barcodes on the learning objects

② Scanning the QR code / barcode

③ Displaying information in the app

## Portable learning platform - *Students*

- Students can access the learning objects by
  - ✓ scanning **barcodes**;
  - ✓ scanning **QR codes**;
  - ✓ scanning **RFID**; or
  - ✓ searching with **keywords / hashtags**.
- Content of the learning objects includes
  - ✓ textual description;
  - ✓ photos / images; and
  - ✓ videos.
- Learning objects are sorted into six different themes under Chemistry and Life Sciences.
- Assessments are available to test students' understanding on the topics.
- Learning modules are available to allow students explore more about the objects.




## Web-based learning management system - *Teachers*

YouTube

- Teachers can upload
  - ✓ learning objects;
  - ✓ multi-media (e.g. audio, videos and photos); and
  - ✓ assessments; and
- Reports on the assessment of students can be generated to evaluate their performance.
- Learning modules can be created to allow students explore more about the objects.


## Contents and Users Statistics (by March 2021)

| | |
|---|---|
| Total number of registered users | 981 |
| Total number of app login | 7,858 |
| Total number of articles / topics | 1,702 |
| Total number of topics created by project team members and teachers | 1,212 |
| Total number of topics created by students | 490 |
| Total number of modules | 62 |
| Total number of assessment items | 1,100 |

## View Counts Statistics (by March 2021)

| | |
|---|---|
| Total topics view counts | 37,815 |
| Topics with view counts >100 | 62 |
| Topics with view counts between 50-100 | 127 |
| Topics with view counts between 20-50 | 311 |
| Topics with view counts <20 | 1,173 |
| Number of users accessed more than 100 topics | 25 |
| Number of users accessed 50-100 topics | 47 |
| Number of users accessed 20-50 topics | 179 |
| Number of users accessed <20 topics | 612 |

## *Chemistry* Food, Drugs and Organic Chemistry

Examples of the learning objects:
- Apartame (E951)
- Aspirin
- Carbohydrates
- Coca-cola Zero
- Gelatinization of starch

Examples of the learning modules:
- Basic Chemistry
- Beverages
- Food additives
- Common over-the-counter drugs


## *Life Science* Implementation - *Lab Courses*

Scanning of QR codes on speciments or PDF

Completion of the assessment items to earn marks

Read specific information of the specimens and extend the knowledge through hashtags/links

| Course | Article no. | Average no. of articles read by students | Total no. of articles read by students |
|---|---|---|---|
| BIOL3012 | 32 | 20.6 | 825 |
| BIOL3022 | 112 | 55.2 | 1988 |

Student can earn 2 marks by answering the assessment items of the articles.


**Financial Support of this Project:**

UGC Teaching and Learning Related Funding (2016-2019)

## P05: "Science Mobile" – Learning Science with a Smartphone

**Presented by**
Dr Kendrew Kin Wah MAK, Department of Chemistry, The Chinese University of Hong Kong
Dr Cherry Cheung Ming CHOW, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
"Science Mobile" is developed as a portable learning platform to facilitate students learning science concepts across different science disciplines in daily life. All learning objects are hosted by a web-based learning management platform. "Science Mobile" has been launched in App Store in iOS system and Google Play in Android system since April 2019. Students can install the apps into their smartphones to view the learning objects for ubiquitous learning. They can also access the learning objects by scanning the corresponding barcodes, QR codes and RFID, or by searching with relevant keywords and hash tags. The learning objects are displayed with images, textual description, videos, and related websites. Hash tags and in-text-hyperlinks allow students to explore the relationship among different learning objects. The topics are categorized into different learning modules to allow students to explore more about the objects in which modules are available for relating the learning objects to build a learning pathway. In some courses, students will be invited to create learning objects through the content editor panel for the platform to encourage the participation of the students and promote interactive learning. Assessment can be assigned to students for assessing their understanding on certain learning objects. Students' performance can be viewed by generating reports on the assessment using the web-based panel. Until April 2021, over 1700 topics related to Chemistry and Life Sciences have been created. Positive feedback are received from both teachers and students that the learning platform is convenient to use and helpful in enhancing the learning process. There are a number of departments in CUHK and other institutions expressed their interest in the "Science Mobile" platform, and are preparing to adopt it into their courses.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Combining Live Streaming Demonstrations and Pre-Recorded Micro-Modules for Online Teaching of Organic Chemistry Laboratory Courses

Dr. Kendrew Kin Wah MAK
Department of Chemistry, CUHK

Laboratory practical training is always a dispensable part of training for chemistry students. Chemistry students should gain sufficient hands-on training to master the essential fundamental laboratory skills. However, it became very challenging in 2020-21 as most of the teaching activities could only be conducted online due to COVID-19. New teaching strategies had to be explored to ensure the laboratory courses could be conducted effectively.

To cope with the unprecedented teaching situation in 2020-21, collections of pre-recorded micro-modules were prepared to support the teaching of three undergraduate organic chemistry laboratory courses (CHEM2860, CHEM3810, CHEM3820). Besides, to promote real-time interactions between teachers and students, live-streaming of real-time experiment demonstrations were also conducted via ZOOM.

Students' feedbacks were collected to evaluate the effectiveness of online teaching for laboratory courses.

## Pre-recorded Micro-modules of Experiment Demonstrations

Complete collections of demonstrations of the experiments conducted in the three organic chemistry laboratory courses.

| Course | No of videos | Total length |
|---|---|---|
| CHEM2860 | 8 | 75 minutes |
| CHEM3810 | 8 | 115 minutes |
| CHEM3820 | 7 | 130 minutes |

Each demonstration video consists of:

- **2 – 3 minutes of pre-lab introduction (PPT slide + voice annotation)**
  - Introducing the principles and the precautions of the experiment
- **12 – 15 minutes of demonstration (with text and voice annotation)**
  - Showing the detailed operations of the experiment and the key experimental data.
  - Giving emphasize on the key operations involved in the experiment


- To evaluate students' understanding about the experiments, students have to complete the following with reference to the details and data shown in the demonstration videos:
  - submit laboratory reports;
  - complete online quizzes (MCQ on Blackboard)

**Advantages:**

- The presentation of the videos can be optimized by careful shooting and editing.
- The presentation is more condensed and can focus more on the important points.
- Bookmarks can be added to facilitate students to quick access the key steps.

**Disadvantages:**

- No teacher-students real-time interactions.
- Difficult to keep track of students' attention.

## Live-streaming of Real-time Experiment Demonstrations

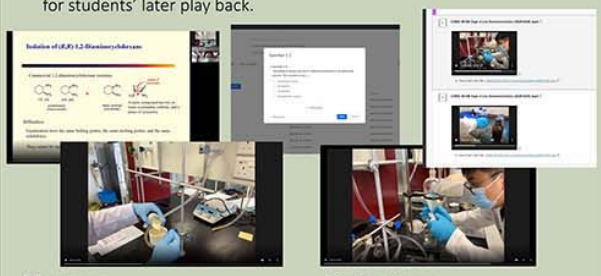
Live-streaming of experiment demonstrations were conducted during the actual class time via ZOOM.

- The demonstrations were performed in real time as the laboratory classes are actually running according to the class schedule.

Each demonstration session consists of:

- **10 – 15 minutes of pre-lab talk**
  - Covers the principles and the precautions of the experiment in details
- **1.5 – 2 hours of real time demonstration**
  - Performed either by the course teacher or by a senior undergraduate student (experienced final-year student).
  - Showing the whole course of the experiment in details.

- Teachers explained the experiments and talked to the students via ZOOM at real time.
- To evaluate students understanding, and to engage students during the demonstrations, teachers posted questions to students at random time using the polling function or the text chatroom on ZOOM.
- The whole demonstrations were recorded and uploaded to Blackboard for students' later play back.



**Advantages:**

- Teachers and students can interact in real-time.
- Students can view the complete details of the experiment.

**Disadvantages:**

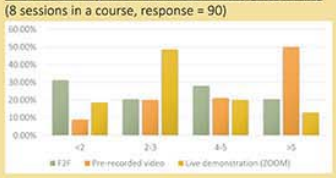
- Difficult to engage students' full attention for the whole 2-3 hours lab session via ZOOM.
- Less room for optimizing the presentation of the demonstration via shooting and editing.
- Less easy to put emphasis on key steps / key skills.

## Feedbacks Collected from Students and Usage Statistics

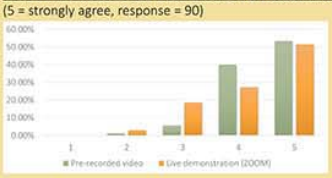
**No. of students joined the real-time demonstrations via ZOOM:**

| Course | Class Enrollment | Teaching Mode | Students Joined |
|---|---|---|---|
| CHEM2860 | 56 | **Online only** | **55** |
| | | Online + F2F | 7 |
| CHEM3810 | 53 | **Online only** | **51** |
| | | Online + F2F | 6 |
| CHEM3820 | 40 | Online + F2F | 5 |

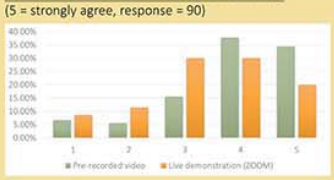
**% of students joined different modes of teaching**
(8 sessions in a course, response = 90)



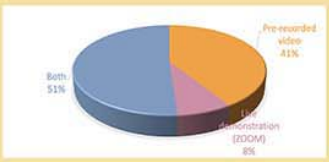

**Able to understand the operations of an experiment**
(5 = strongly agree, response = 90)




**Whether the Online Modes are Sufficient and Effective Substitutes for Hands-on Sessions**
(5 = strongly agree, response = 90)




**If the online mode will still be conducted in the next semester, which method will you prefer?**




Supported by:
Courseware Development Grant Scheme (2019-22)

# P06: Combining Live Streaming Demonstrations and Pre-Recorded Micro-modules for Online Teaching of Organic Chemistry Laboratory Courses

**Presented by**
Dr Kendrew Kin Wah MAK, Department of Chemistry, The Chinese University of Hong Kong

**Abstract**
Laboratory practical training is a dispensable part of training for chemistry students, in particular in the area of organic chemistry. It is very important for the chemistry undergraduates to gain sufficient hands-on training so that they can master the fundamental experimental skills to conduct experiments properly and safely. As the COVID-19 persists throughout 2020, much of the teaching activities of the undergraduate courses have to be moved to online, including the laboratory courses. During the time when it is difficult to arrange face-to-face laboratory sessions, micro-modules prepared on demonstrating laboratory skills and experiments become a very crucial teaching resource for laboratory courses. On the other hand, real-time interactions between teachers and students are also very important in teaching and learning. Besides of using pre-recorded demonstration videos, live streaming of real-time experiment demonstrations using video conferencing platform can also be an effective alternative method for conducting laboratory courses during the time when strict social distancing policies are enforced. Micro-modules and live streaming can be used complementarily to provide synergetic effects for online laboratory courses. We have implemented this duel mode of online teaching for organic chemistry laboratory courses in the two semesters of 2020-2021, and their teaching effectiveness were studied.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# Cantonese Peer Tutoring Sytem 2.0

SIU-LUN LEE
YALE-CHINA CHINESE LANGUAGE CENTRE

## Learning Cantonese outside the classroom

CanSL Peer Tutoring Sessions, Thematic Workshops and Interactive Virtual Tours

To be in line with University's vision which states the importance of "multilingual and multicultural" abilities and fosters internationalization within CUHK, a Cantonese tutorial system has been designed and piloted (TDLEG 2016-19) for CUHK students learning Cantonese as a second language (CanSL) in 2018. The piloted tutorial system received positive feedback from CSL students, peer tutors, and course teachers. This Cantonese Tutorial System 1.0 consists of Peer-tutoring Sessions closely linking with lectures, Thematic Workshops on Cantonese language and culture as well as Cultural Tours. The Cantonese Tutorial System received positive feedback from CanSL students, peer tutors, and course teachers.


TDLEG (2016-2019, 2019-2022)

The Cantonese Peer Tutoring system continues to run in the 2019-22 triennium (TDLEG 2019-22). The implementation was affected by the outbreak of COVID. In Spring Term 2019-2020, the Cantonese Peer Tutoring system also changed to online synchronous mode since a large number of the international and non-local Mandarin speaking students were staying outside Hong Kong. After training peer tutors and piloting the online synchronous version of the Cantonese Peer Tutoring System during Spring Term 2019-2020 and Summer 2019-2020. The Cantonese Peer Tutoring System 2.0 not only runs stably, but also expanded its capacity on Thematic Workshops and developed Interactive Virtual Tours in the online synchronous platform. The Interactive Virtual Tours incorporate human interactions with technology. CUHK campus tours, city street walks and major scenic spots in Hong Kong have been organized and was well-received by both CanSL students and peer tutors.

Fall Term 2020-2021: **7** CUHK students were trained as CanSL peer tutors, **16** peer tutoring sessions, **2** Thematic Workshops and **6** Interactive Virtual Tours were organized. **200** Mandarin-speaking students and **14** international students are enrolled and participated in the Cantonese Peer Tutoring System.

Spring Term 2020-2021: **10** students were trained as peer tutors, **12** peer tutoring sessions, **4** Thematic Workshops and **7** Interactive Virtual Tours were organized. **60** Mandarin-speaking students and **24** international students enrolled and participated in the Cantonese Peer Tutoring System.

*"The tutorial session was challenging and helpful. It definitely helped."*

*"It was useful. I got to practice more outside of lecture."*

*"I like the activities since they were interactive."*

## P07: Cantonese Peer Tutoring System 2.0

**Presented by**
Dr Siu-lun LEE, Yale-China Chinese Language Centre, The Chinese University of Hong Kong

**Abstract**
Peer tutoring is one of the topics that attract attention and arouse discussions in the language teaching field. Cantonese as a second language learners at the Chinese University of Hong Kong benefit from the Cantonese Peer Tutoring System (TDLEG 2016-2019; 2019-2022). This digital poster presents the design and implementation of a Cantonese Peer Tutoring System designed for Cantonese as second language students at the University. Background and theoretical considerations of the peer tutoring system are discussed. Special focus will be on the upgrades and implementation of the Cantonese Peer Tutoring system 2.0 during the COVID pandemic. The change of peer tutoring activities to synchronous interactive online mode is examined. Re-conceptualization of pedagogical design and application of the Cantonese Peer Tutoring System 2.0 is discussed. This paper also analyzes positive feedback from stakeholders and explores the application of synchronous online peer tutoring in language teaching in the long run.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# A combined system of flipped classroom and problem-based learning (PBL) for the ophthalmology course of undergraduate medical students – a randomised controlled trial

Chan PP[1], Lee VWY[2], Lai, CH[1], Yam JC[1], Chu WK[1], Ng DS[1], Chen LJ[1], & Tham CC[1]
1. Department of Ophthalmology and Visual Sciences, CUHK
2. Centre of Learning Enhancement And Research. CUHK

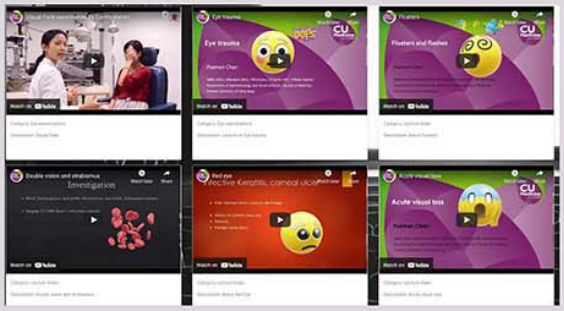
## Background

- It is challenging for medical students to learn ophthalmology within a short, 1-week rotation.
- Furthermore, ophthalmology is seemingly irrelevant to medical students' future practice and the subject nature is radically different from other core specialties (e.g. internal medicine).
- We need an innovative approach of teaching that could provide: (1) convenient access to key knowledge, (2) allows easy repetition, and (3) provide re-learning opportunity with clinical scenarios related to other core specialties.

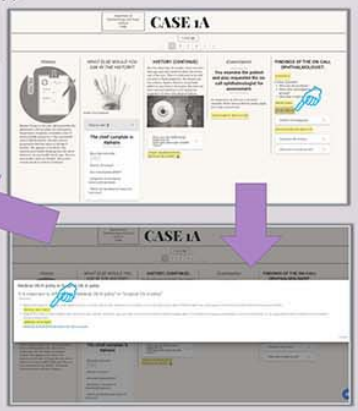
## Methods

- We designed a combined system of **flipped classroom** and tutor-guided **problem-based learning** for medical students.
- Students were provided with e-learning teaching videos and 24 gamified case scenarios as "pre-class" and "in-class" materials.
- They were randomised to undergo the new course ***(flip-case group)*** or the traditional course ***(control group).***

## Features



▲ Readily available pre-classroom teaching videos (all <10 minutes) and clinical examination demonstration all included on the website.


▲ Interactive PBL cases provides clinical ophthalmology scenarios, with the plot and formatted in a gamified style. Relevant answers, clinical photos, illustrative cartoons and teaching videos will pop up when the student click on the buttons.

## Results

A total of 90 final-year medical students (45 in each group) were involved and completed a five-point Likert scale questionnaire to assess their satisfaction and perceptual usefulness in clinical practice after the 1-week rotation. In the flip-case group, the tutors obtained higher CTE score and students showed a significantly higher satisfaction (compared with the control group) in terms of:

| Control group | | Flip-case group |
|---|---|---|
| **Tutor-students communication (P< 0.001)*** | | |
| 4.17/5.0 | vs | 4.82/5.0 |
| **Teaching materials (P=0.003)*** | | |
| 3.92/5.0 | vs | 4.24/5.0 |
| **Instructional methods (P≤0.001)*** | | |
| 4.04/5.0 | vs | 4.63/5.0 |
| **Course outcome (P≤0.003)*** | | |
| 3.84/5.0 | vs | 4.37/5.0 |
| **Course workload (P≤0.003)*** | | |
| 3.88/5.0 | vs | 4.30/5.0 |

**Course and Teaching Evaluation (CTE) score**

| Control group | | Flip-case group |
|---|---|---|
| | (P<0.001)* | |
| 5.01/6.0 | vs | 5.72/6.0 |

* Mann-Whitney Test

### Feedback from students

The teaching videos are good and very delicate, easy to understand, and a good alternative to textbook.

The PBL cases are interesting and can stimulate the thinking of different ocular disease and related medical problems.

Digital learning is nicely presented and easier to understand than traditional teaching.

The scores of the end-of-rotation assessment were similar between the two groups – 89.9% (flip-group) vs 88.8% (control group).

## Conclusion

The feedbacks reflected that our model helped students' learning. This is potentially applicable in other medical specialties.

Financial Support:
Teaching Development and Language Enhancement Grant (TDLEG) 2019-22 Triennium

# P08: A Combined System of Flipped Classroom and Problem-based Learning for the Ophthalmology Course of Undergraduate Medical Students

**Presented by**
Dr Poemen Pui Man CHAN, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Prof Vivian Wing Yan LEE, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Mr Chung Hei LAI, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Dr Jason Cheuk Sing YAM, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Dr Wai Kit CHU, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Dr Danny Siu Chun NG, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Dr Guy Li Jai CHEN, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Prof Clement Chee Yung THAM, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong

**Abstract**
Background It is challenging to engage medical students in a short, 1-week ophthalmology rotation that is seemingly irrelevant to their future practice whilst requiring them to master other essential clinical skills (e.g. internal medicine) with a radically different nature and patients' approaches. It is necessary to utilise an innovative approach that provides convenient access to key knowledge, allows easy repetition, and re-learning opportunity with clinical scenarios related to other core specialties. Methods We designed a combined system of flipped classroom and tutor-guided problem-based learning for medical students. Students were provided with e-learning teaching videos and 24 gamified case scenarios as "pre-class" and "in-class" materials. They were randomised to undergo the new course (flip-case group) or the traditional course (control group). Results Ninety final-year medical students (45 in each group) were involved and completed a Likert scale questionnaire to assess their satisfaction and perceptual usefulness in clinical practice after the 1-week rotation. The flip-case group showed a significantly higher satisfaction of their tutor-student communication ($P < 0.001$), teaching materials ($P=0.003$), instructional methods ($P \leq 0.001$), course outcomes ($P \leq 0.003$), and course workload ($P \leq 0.008$). Students in the flip-case group found the course stimulating and helped them relate ophthalmology with other core specialties. In contrast, students in the control group found the teaching schedule demanding and packed with information. Tutors in the flip-case group also obtained a significantly higher Course and Teaching Evaluation (CTE) score ($P<0.001$). Conclusion The feedbacks reflected that our model helped students' learning. This is potentially applicable in other medical specialties.

**Video Stream**
Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
Curriculum/Course Design

Authors: Dr. Ocean Siu & Ms. Sharon Wong

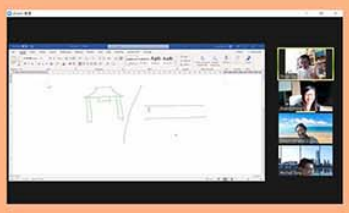
語言交換計劃（網上版）

# Language Exchange Programme (Online Version)

The Language Exchange Programme (LEP) is designed to be a pressure-free language learning opportunity, which has been running for over 8 years by the Independent Learning Centre (ILC). Due to the pandemic, the LEP was moved online, and therefore we made some changes to cope with the new online teaching and learning environment.

## Key Points

Conducted the programme online



Interactive activities


Substituted the field trip with a "virtual-tour"

Follow up after class

"This programme is fun and makes me feel a sense of belonging. It's the best time to relax in my spare time."

Student feedback

Please scan the QR code for more information!

## P09: Language Exchange Program (Online Version)

**Presented by**
Dr Ocean SIU, The Independent Learning Centre, The Chinese University of Hong Kong

**Abstract**
The Language Exchange Program (LEP) is designed to be a pressure-free language learning opportunity, which has been running for over 8 years by the Independent Learning Centre (ILC). The program allows students to practise their target languages (Cantonese, English and/or Putonghua), as well as learning about different cultures. In this six-lesson program, students are divided into small groups made up of both local and non-local students. Our roles are to lead group activities, facilitate discussions and provide instant feedback regarding their language use. Due to the pandemic, the LEP was suspended in the second term of the 2019/20 academic year. However, after careful consideration, we decided to resume the LEP but in an online setting for both terms in the 2020/21 academic year. We have made some changes to cope with the new online teaching and learning environment, such as substituting the field trip with a "virtual-tour", in which participants were invited to share a meaningful place to them in Hong Kong or their hometown. A chat group on WhatsApp was also created to encourage participants to exchange ideas and their language problems after class. The two rounds of the online LEP have received very positive feedback from both local and non-local participants. They think that the program is interesting and educational. They also enjoy sharing their own culture and practising their target language in a supportive environment. The program has helped to promote autonomous learning, experiential learning and the culture of inclusion.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
Curriculum/Course Design

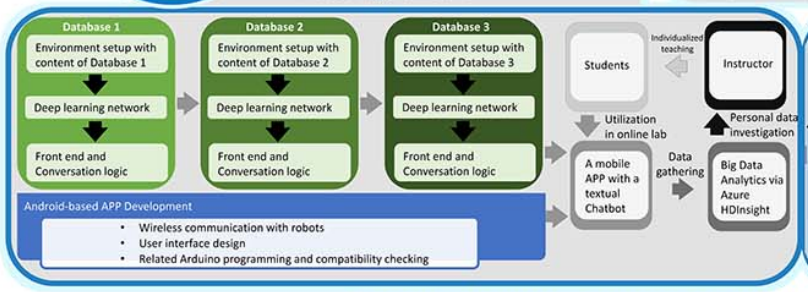
# An Intelligent Cloud Teacher for Unmanned Robotic Online Laboratory

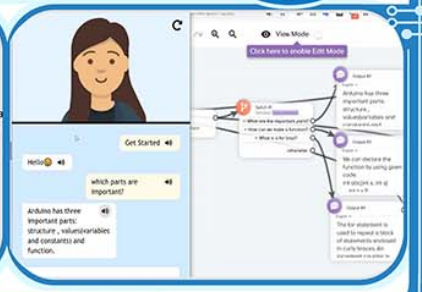
*Dongkun Han, and Martin Leung*
Department of Mechanical and Automation Engineering, CUHK

## AI Based Cloud Teacher Development

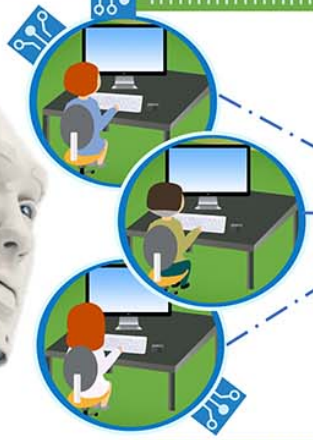
- One-on-one student-instructor communication is essential for engineering hands-on training.
- Especially under COVID19, individual student-instructor interactivity becomes increasingly difficult.

- A text-based conversational agent (cloud teacher) is developed by utilizing artificial intelligent tools.
- It can understand and answer the questions from students in Arduino programming for making robots.

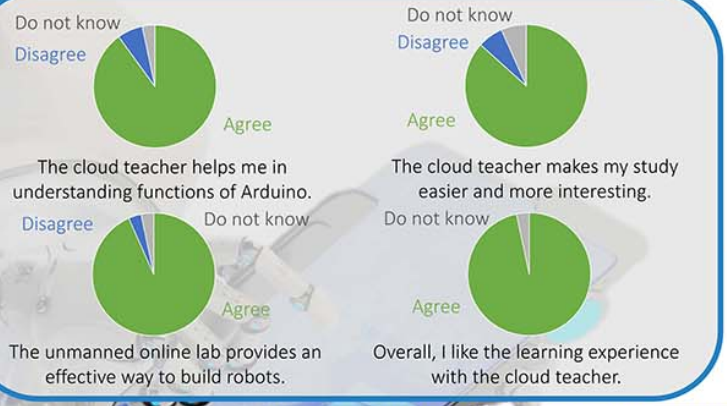

## Unmanned Robotic Lab: Key Features



**Automatic assessment:** Via image analysis method, the performance of students in the online lab can be evaluated directly.

**Personalized education:** Based on Big Data Analysis on the students' historical questions, prescribed teaching and quizzes can be provided.

## Feedback: Students Love It!





## Acknowledgement

This project is supported by TDLEG Special Funding Scheme for Online Learning from the Chinese University of Hong Kong. We appreciate the help and active participation from all students of UGEB2303 Robots in Action in term 2, 2020-2021.

香港中文大學 The Chinese University of Hong Kong
itsc Information Technology Services Centre
Department of Mechanical and Automation Engineering 機械與自動化工程學系

# P10: An Intelligent Cloud Teacher for Unmanned Robotic Online Laboratory

**Presented by**
Dr Dongkun HAN, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Mr Martin Yun Yee LEUNG, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong

**Abstract**
One-on-one student-instructor communication is essential in many aspects for science and engineering education. Especially under COVID-19, individual student-instructor interactivity becomes increasingly precious yet growingly difficult. To address this issue, we developed a so-called "cloud teacher", which is an intelligent conversational agent for answering the questions from students in building and manipulating their robots online. The basic underlying idea is to train the agent by utilizing open-source artificial intelligence tools from Google's DeepMind, such that the agent can understand and answer the questions raised by students in making their robots online. Specifically, distinct features of cloud teacher include: 1) Provide instant textual answers to students' questions regarding robot assembly and computer programming (Arduino and SolidWorks: Two most common software in robot control and 3D printing). 2) Supply video demonstrations for helping students in building and manipulating their robots. 3) Automatic assessment of students' online lab performance on controlling their robots. 4) Personalized quizzes based on big data analytics of students' historical questions and performance. Based on the above features, an unmanned robotic online lab has been constructed with 11 sets of real robotic arms, controllers, touchable monitors and corresponding software. The approach of AI-powered conversational agent has demonstrated its effectiveness in 4 engineering courses with more than 200 students. Furthermore, we collaborated with an oversee university, and applied it in the distant robotics education with 50 students from U.K. This method has a high potential to be explored across different disciplines and countries for virtual experiential learning in the new normal.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

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**Areas of Interest**
Tools, Platforms and EduTech

# Animated Dialogues with Audio-Visual Cues for Elementary Putonghua for International Students

LIU Zhenxia, WANG Tianxiao, WEI Danli, Bill Lin WU
Yale-China Chinese Language Centre, CUHK

## Introduction

- ❖ Full project: "Audio-Visual Flipped Classroom Materials for Elementary Putonghua Listening & Speaking I"
- ❖ Course: CLCP1123 (Oral Skills Practice I)
  - A **listening and speaking course** in Putonghua for beginning international students;
  - Only **pinyin** is used.
- ❖ Course format: Preview → Lecture → Review
- ❖ Project objective: To create **audio-visual materials** for "**Preview**" following a **flipped classroom** model.
- ❖ This presentation: A portion of the materials created (i.e. the animations).


## The Animations

- ❖ Animations of each dialogue in the CLCP1123 textbook were created using the cloud-based software *Animaker*.
- ❖ **Highlights**:
  - **Visually-appealing** and **interesting**;
  - Let students **adjust the speed** of the dialogues;
  - Give students an option of whether or not to have **subtitles**;
  - **Clearly show the contexts and settings** in which each dialogue takes place;
  - Include **a plethora of visual cues** to help students **visualize and understand** what they hear;
  - Actualize the concept of "**audio-visual**."

## Importance during COVID

- ❖ **Context-setting** during class was significantly more challenging via Zoom as compared to in-person lectures, where various **physical prompts** could be used in addition to **PPTs**, **videos**, and **music**.
- ❖ **Travel restrictions** and **social distancing** made it near-impossible for many students to have access to **Putonghua-speaking environments** and to put what they learned into practice.
- ❖ The animations **filled these gaps** by providing many **contexts** to students, giving students more chances to see **Putonghua in use**, and letting students **experience things** that were prohibited during the pandemic **vicariously**, e.g. dining out and visiting a friend.

## Student Feedback

- ❖ Many students watched each animation **twice**, **both before and after lecture**.
  - ☑ The animations made the **context and setting** of each dialogue **clear.**
  - ☑ The **visual cues were helpful.**
  - ☑ The animations helped students **remember** the **key vocabulary** and **sentence patterns** better.

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**This project was funded by the Courseware Development Grant Scheme (2019-2022).**

# P11: Animated Dialogues with Audio-Visual Cues for Elementary Putonghua for International Students

**Presented by**
Mr Bill Lin WU, Yale-China Chinese Language Centre, The Chinese University of Hong Kong
Ms Danli WEI, Yale-China Chinese Language Centre, The Chinese University of Hong Kong
Mr Tianxiao WANG, Yale-China Chinese Language Centre, The Chinese University of Hong Kong
Ms Zhenxia LIU, Yale-China Chinese Language Centre, The Chinese University of Hong Kong

**Abstract**
This e-poster and the accompanying video showcase the animations created in the project "Audio-Visual Flipped Classroom Materials for Elementary Putonghua Listening & Speaking I," funded by the Courseware Development Grant Scheme (2019-2022). International students from different countries have different language backgrounds and, accordingly, different needs. Additionally, most students studying elementary Putonghua at CUHK do not have immediate access to a Putonghua-speaking environment outside of class. This project aimed to create audio-visual materials to enhance students' learning experiences. Among the project outcomes were animations of the textbook dialogues, showing the contexts in which each dialogue takes place and providing visual cues to aid in students' comprehension of the dialogues. The animations were piloted and all feedback received from students indicated that the visual cues in the animations helped them understand the dialogues and remember the key vocabulary and sentence patterns from each lesson better. Furthermore, students seem to have enjoyed the animations based on the written feedback they gave. With the positive feedback received from students, the animations will be provided for students' reference in future terms as well.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# VIRTUAL REALITY TRAIL OF PLANT LEARNING IN CUHK

Ho Lam WANG, Tin Hang WONG, Yiu Man CHAN, Matthew Yat Sum Chen, Tai Wai David LAU

CONTACT/ENQUIRY:

胡秀英植物標本館
SHIU-YING HU HERBARIUM

**Dr. Tai Wai David LAU**
Shiu-Ying Hu Herbarium, School of Life Sciences, CUHK
Tel: 394 36141; Email: lautaiwai@cuhk.edu.hk

## PLANT LEARNING FEATURES

1. Flower
2. Fruit
3. Trunk
4. Leaves
5. Roots
6. Overview

SCAN TO EXPLORE

https://syhuerbarium.sls.cuhk.edu.hk/vr

## OBJECTIVES

1. To provide an interactive and safe plant learning experience during field study;
2. To promote flipped classroom and popular science;
3. To provide training of plant identification skills for students.
4. To promote self-learning and flipped classroom.

## DELIVERABLE

This project aims to develop virtual learning trails to exhibit different kinds of natural and urban habitats. Two CUHK campus plant learning trails (United college and Lake Ad Excellentiam) and One off-campus (Tai Wan in Sai Kung) will be used as online materials for the undergraduate courses. Each trail introduces at least 10 core plant species and several bonus plant species.

United College

Lake Ad Excellentiam

Tai Wan, Sai Kung

## COURSEWARE INTERFACE

- The VR plant learning trail is a free-to-access Web App supporting computer, smartphone, and tablet users.
- The app provides a 360° natural environment which can be viewed by using VR goggles and smartphone.
- Each VR plant learning trail contains many interactive hotspots with different functions, including:
  - to view plant photos and information
  - to switch location, and
  - to visit external websites.
- The VR plant learning trails provide users an immersive experience of virtual field trip without limitations from weather, physical abilities or even epidemic situation.

Visit the main page of the Web App through computer, smartphone, and tablet.

Select one of the three VR trails on the main page.

Follow the user guide to explore the virtual environment.

Scroll to zoom and drag to look around. Click the arrow hotspots to switch location.

All the plants are hidden in the trail. Look around to search for some hints and reveal the plants.

Click on the plants to view information and photos.

## OUTCOME AND SUSTAINABILITY

The VR plant learning trail can be implemented in different university courses. In 2020-2021 academic year, the beta test of this courseware was conducted in CUHK courses BIOL3022, BIOL3570 and BIOL4510. Feedback from students shows a positive and satisfying result. The maintenance and improvement of the VR plant learning trail is ongoing and the courseware will continue as a supplementary learning tools for the courses.

*The courseware also have been launched in 2 local primary schools (160 students and teachers) as pilot extensive STEAM activities

## VIRTUAL REALITY EXPERIENCE

A 360° environment by using VR goggles and smartphone with gyroscope. Instead of scrolling and dragging around, users can direct interact with the hotspots by looking at them. This allows users to explore the environment with immersive experience without any limitation.

COURSEWARE FUNDED BY: TEACHING DEVELOPMENT AND LANGUAGE ENHANCEMENT GRANT 2019-2022

# P12: Virtual Reality Trail of Plant Learning in CUHK

**Presented by**
Mr Tin-hang WONG, Shiu-Ying Hu Herbarium, School of Life Sciences, The Chinese University of Hong Kong
Mr Ho-lam WANG, Shiu-Ying Hu Herbarium, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
The project aims to provide a safe and interactive plant learning experience for students. They can explore the natural environment through computers, mobile phones, and VR goggles to study specific plants in a virtual trail. It facilitates self-learning motivation and also provides flipped classroom materials, which supports trainings of plant identification skills. Three modules of VR trail were produced, including those in the United College, the Lake Ad Excellantiam and Tai Wan Village areas. Each VR trail introduces around more than 10 plant species. All the completed VR trails were launched in March 2021. The VR trails can also used as a supplementing learning resource for undergraduates who enroll biology-related courses. As an alternative learning mode under pandemic situation, the VR trail well supported two undergraduate courses and one online field study from January to April in 2021 as a pilot test. The VR trails allow students to study plants virtually and help them to keep improving their plant identification skills. After collecting the feedbacks and implementing further modification, the project will be fully launched in coming September for supporting the biology-related courses in the first semester of 2021.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# INTERACTIVE VR TREE HUNT GAME FOR FLIPPED LEARNING

Ho Lam WANG, Tin Hang WONG, Yiu Man CHAN, Matthew Yat Sum Chen, Tai Wai David LAU

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胡秀英植物標本館
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## LEARNING FEATURES

1. Landscape
2. Habitat
3. Ecology
4. Plant features
5. Plant identification

SCAN TO EXPLORE

## OBJECTIVES

1. To Promote flipped classrooms and e-learning platforms as consolidation of field study
2. To Provide simulated career experience for undergraduate students
3. To Provide a new and interesting learning environment
4. To act as a backup teaching plan during class suspension period in response to epidemic period

## VR LEARNING EXERCISES AND THEMES

This project aims to develop interactive game-based learning exercises by VR technology. Two campus and one off-campus VR learning exercises with the theme of common urban trees, mangrove landscape, and native fung shui wood (風水林) are in development. Each exercise introduces at least 5 core plant species and several extra plant species.

Common Urban Trees

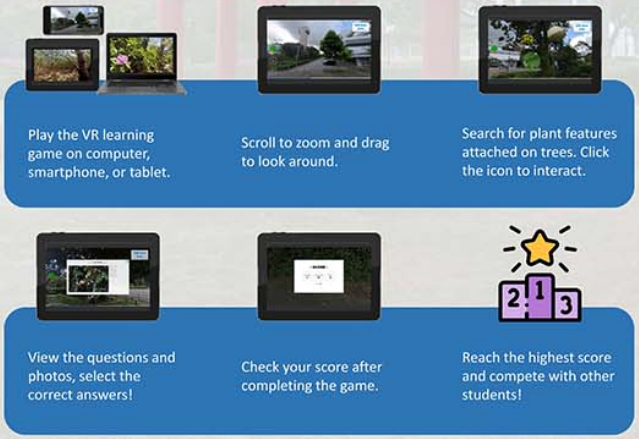
United College

Native Fung Shui Wood

Tai Wan, Sai Kung

Mangrove Landscape

Kei Ling Ha, Sai Kung




## GAME-BASED ELEMENTS

The VR learning game is a new Web App with novel interactive quizzes and e-learning exercises (in the form of 360 Video) which could enhance teaching and learning effectiveness in university. The designed game mode allows users to compete with one another which creates a more active and interactive learning environment. The user interfaces of the VR learning game are designed through the collaboration between software developer, botanists, and student helpers, which ensure the attractiveness of the game and helps to promote self-learning.

## OUTCOME AND SUSTAINABILITY

The VR plant learning trail can be implemented in different university courses. In 2021-2022 academic year, the beta test of this courseware was conducted in CUHK courses BIOL3022, BIOL3570, BIOL4012, and BIOL4510. Students' feedback and opinion on the game will be collected for the courseware improvement during the beta tests..

## VIRTUAL REALITY EXPERIENCE

Users can experience a 360° environment by using VR goggles and smartphone with gyroscope. Instead of scrolling and dragging around, users can interact the hotspots by looking at them.

## AERIAL VIEW OF HABITATS

The aerial view of the landscape and the habitats would be filmed by drone, which shows an overview of the environment.

COURSEWARE FUNDED BY: TEACHING DEVELOPMENT AND LANGUAGE ENHANCEMENT GRANT 2019-2022
(Special Funding Scheme to Enhance Student Engagement and Address Student Learning Needs )

## P13: Interactive VR Tree Hunt Game for Flipped Learning

**Presented by**
Mr Ho-lam WANG, Shiu-Ying Hu Herbarium, School of Life Sciences, The Chinese University of Hong Kong
Mr Wong Tin Hang, Shiu-Ying Hu Herbarium, School of Life Sciences, CUHK, The Chinese University of Hong Kong

**Abstract**
To enhance teaching and learning effectiveness in university courses for tree identification skills under biology-related courses, an interactive virtual reality game-based learning platform has been introduced to our undergraduate students. By applying the VR video taking and editing technologies, the conventional lecture contents could be given in a virtual simulated environment with enhanced fun elements. Two campus-based and one off-campus nature trails of different educational themes have been filmed by panorama camera and drone, and hence it created interactive game-based VR e-learning module with novel VR interactive quizzes and e-learning exercises. Each module targets to teach 3 to 6 plant species. The game-mode design would facilitate an active and interesting learning when the enrolled students could challenge one another on the learning platform. The program could also be used an alternate teaching mode under special class arrangement during the pandemic suspension period. The VR tree hunt game shall be released in the semester of Jan 2022 as a pilot scheme and formally operates as teaching enhancement tool in coming years

**Video Stream**
Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Student Partnership in Teaching and Learning for the Development and Delivery of an eLearning Project on the United Nations Sustainable Development Goals (SDGs)

Kevin KC Hung, Catherine PY Mok, Yelly TY Choi, Barney Wong, Joelle CS Chow, Robin CK Yung, Ho Yi Mok, Junyi Li, Carmen KM Sun, Chi Shing Wong, Emily YY Chan, Colin A Graham

Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response
CCOUC 災害與人道救援研究所

Faculty of Medicine
The Chinese University of Hong Kong

The Jockey Club School of Public Health and Primary Care

## SDG eLEARNING PROJECT

### Introduction

A local survey in 2018 found that young people in Hong Kong lack awareness of SDGs and the lack of locally relevant teaching courses and materials limits students' appreciation of this important topic and their future participation[1]. We proposed an eLearning course with eight modules on the various health-related SDGs (figure 2) with locally relevant learning materials. Students developed an understanding of how health is influenced by environment, food, water, security, equity, poverty, gender equality, trade, and migration. They appreciated that good health has a positive impact on economic growth and cultural development.

### Objective and Delivery Plan

The objective of this project was to develop eight eLearning modules to provide students with the knowledge and understanding of health-related Sustainable Development Goals (SDGs), and to enhance the university teaching resources available. We aimed to carry out the following with key learning outcomes identified by the content expert and the student representatives for each module:

- Describe and explain the goal and the targets in the module
- Recognise the world trend on the selected indicators
- Appreciate the local situation in Hong Kong through epidemiological data, research findings, expert/practitioner/NGO perspectives
- Compare the highlighted situation from another country as a case study

### Methods

The eLearning modules utilized videos, illustrations, animations and interactive quizzes to provide a high quality learning experience. The self-paced modules allowed flexibility for students to self-learn at their own speed and review contents. Reference materials were provided and students were directed to available resources if they were interested in reading further. Teachers and student tutors were available to answer any questions arising from the modules and provide constructive feedback.

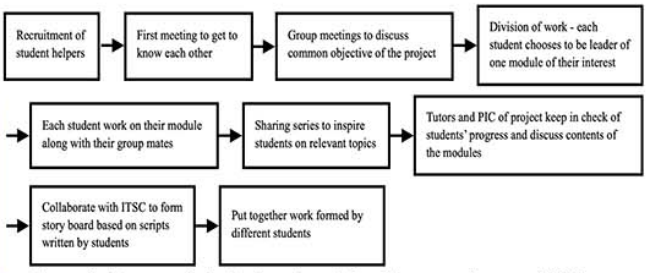



Figure 3. Process of student partnership with supervisors and ITSC

Figure 4. Student leader in SDG eLearning module team meeting

## TEACHING AND LEARNING OUTCOMES

### eLearning Project as a Teaching Method

Given the current world situation of COVID-19, online teaching and flexible-timetable teaching is now more relevant than ever. The use of eLearning modules, which not only allows for students to learn at their own pace, but encourages self-initiated learning and promotes the efficacy of adapting learning to a digital age where students have access to a wealth of information as illustrated in figure 1.

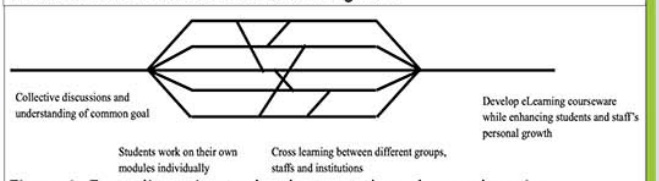



Figure 1. From discussion to development through cross learning

### Cross-discipline Collaborative Learning

The student teams were formed by students of different disciplines including Public Health and Medicine, which allowed for more perspectives on how the health information of the SDG modules could be perceived and presented. As an example, students of the public health discipline could introduce concepts learned in their course in relation to the SDG modules that may not have been covered in the Medicine courses of other students, and vice versa.


Figure 2. Health-related SDGs

### Engagement of Students and Partnerships with Supervisors

The design for each eLearning module was spearheaded by a student and supported by 2-3 other students forming the core research team (Figure 3). Team meetings that were led by student leaders were held regularly. This allowed for greater personal investment in the quality and accessibility of each module (Figure 4). The student teams incorporated knowledge on how SDG modules could complement other university courses, given that the design of the modules could be applied on university education courses with the role of students and supervisors.

### Future Directions

The benefits of self-initiated eLearning can be integrated into traditional curricula. The increased incorporation of digital interface in education requires knowledge exchange and collaboration between those who experience it (students) and those who provide it (educators and ITSC).

### Conclusion

Student partnership provided avenues for knowledge exchange on the efficacy of digital education and eLearning, giving real-time feedback on how face-to-face education strategies are adaptable to a digital interface. Student teams gained research skills and understanding of SDGs in local and international contexts, which paved way for critical thinking and application of theory to real-world context.

### Student Testimonies

*"Being a student lead in this SDG eLearning project has offered a wealth of experience in research, leadership, and collaborative practice."*
*"Student partners were afforded freedom to design a course for the education of future peers which allows a deep understanding of how to look beyond their worldviews to consider peers of various backgrounds and interpretation of information in different manners."*
*"Since the SDGs were to be placed in both local and international contexts, student partners were required to process raw data such that the content was both interesting and relevant to a wider audience beyond those that shared similar backgrounds. The eLearning project was fun and engaging!"*

### Acknowledgement

The project is funded by the Teaching Development and Language Enhancement Grant for the 2019-22 Triennium, with generous support from ITSC.

### Reference

Youth 4.0 Hong Kong Dialogue, Youth 4.0 Initiative, First Youth SDG Survey in HK, *Hong Kong Youth's Opinions towards 'Sustainable Development'*, 2018. [Online]. Available at https://hkdialogue.hksec.hk/features/first-youth-sdg-survey-hk [Accessed on 25th June 2021].

## P14: Student partnership in learning and teaching for the development and deliverance of an eLearning project on the United Nations Sustainable Development Goals (SDGs)

**Presented by**
Prof Kevin KC HUNG, Accident and Emergency Medicine Academic Unit, Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), The Chinese University of Hong Kong
Ms Catherine PY MOK, JC School of Public Health and Primary Care, Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), The Chinese University of Hong Kong
Ms Yelly TY CHOI, MBChB (GPS), The Chinese University of Hong Kong
Ms Joelle CS CHOW, MBChB, The Chinese University of Hong Kong
Mr Robin CK YUNG, MBChB, The Chinese University of Hong Kong
Ms Ho Yi MOK, BSc Public Health, The Chinese University of Hong Kong
Ms Junyi LI, BSc Public Health, The Chinese University of Hong Kong
Ms Carmen KM SUN, BSc Public Health, The Chinese University of Hong Kong
Mr Barney WONG, MBChB, The Chinese University of Hong Kong
Mr Chi Shing WONG, JC School of Public Health and Primary Care, Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), The Chinese University of Hong Kong
Prof Emily YY CHAN, JC School of Public Health and Primary Care, Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), Centre for Global Health, Faculty of Medicine, The Chinese University of Hong Kong
Prof Colin A GRAHAM, Accident and Emergency Medicine Academic Unit, The Chinese University of Hong Kong

**Abstract**
Since 2003, research in evidence-based teaching methods by the United Kingdom's Higher Education Academy showed that students as partners' approaches were pertinent to many aspects of enhancement and innovation and that student engagement were also correlated with positive learning experiences and outcomes for students (1). eLearning is an example of effective and wide-reaching method for knowledge dissemination, and can enhance the university's teaching resources. In this TDLEG supported eLearning on health-related Sustainable Development Goals (SDGs), student partners were engaged in collaborative learning with goals towards identifying and appreciating how health is influenced by environment, food, water, security, equity, poverty, gender equality, trade, and migration. Since the inception and the design of the project, we offered a highly interactive and experiential learning environment of student partners while creating a network that fostered future collaboration in teaching. By helping students improve their skills while stimulating and arousing their interest in a common endeavor, the project promoted personal and professional growth. Concurrently, student partners contributed by bringing forth unique experience from service learning, thought-provoking questions along with relevant knowledge and expertise. Academic advising through mutual exploration played an important role in group meetings where supervisors and students worked together to design the eLearning course that encompassed multimedia and technology-enhanced learning. Most importantly, the implementation of the eLearning course with student as partners not only achieved in enhancing students' capabilities but also fostered the promotion of the CUHK's university-wide SDG initiatives and complemented other general education courses in various Colleges and Departments. 1. Healey M, Flint A, Harrington K. Engagement through partnership: students as partners. Higher Education Academy, July 2014.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Student-oriented Teaching and Learning

# Teaching Smart Cities using E-modules, Cases, and Practitioner's Seminars

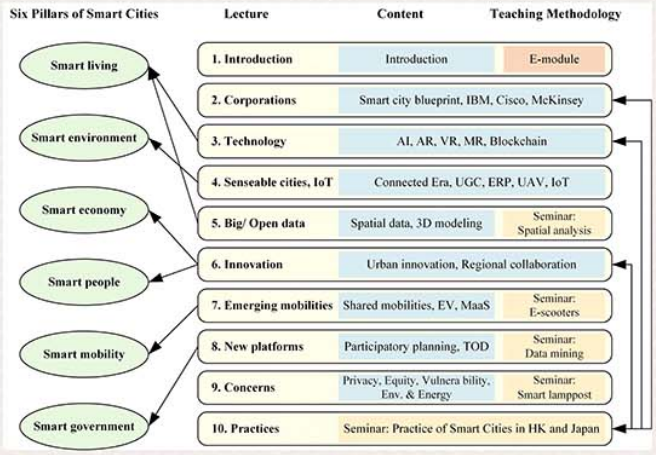
**Prof. Sylvia HE *, Prof. Mei-Po KWAN, Mr. PAN Yu, Ms. HE Xuan, Mr. SUN Ka Kit**
**Department of Geography and Resource Management, The Chinese University of Hong Kong**
* sylviahe@cuhk.edu.hk

## Introduction

Smart city elements have been rapidly infused into every aspect of our urban lives. Being an emerging urban development framework in the past decade, the smart city concept may remain abstract to undergraduate students. The implementations of smart city initiatives also operate on various dimensions of city managements and services which students may not even be aware of, engendering a case-based and detail-oriented learning need. To equip students with the essential knowledge for prospering in the new era of innovation and technology, we employed a combination of multimedia and interactive teaching activities in a newly offered course on smart and sustainable city (GRMD2501 -- Theory and Practice of Smart Cities).

## Expected Learning Outcomes

- Understand the rise and key concepts of smart cities;
- Understand Hong Kong's Smart City Blueprint and recent initiatives/programmes;
- Understand the main discourses and critiques of smart cities;
- Develop innovative ideas to apply new data and technology in urban planning in the era of smart cities.




*Structure of the course*

## Teaching Activities

### E-modules

An E-module was included in the lectures introducing the basic definition, coverage aspects and stakeholders of a smart city, the development of smart city in Hong Kong and the practical elements of building a smart city.

From the e-module, students can receive an overview of the topic and develop better answers to these questions:

- What is to be "smart"? How to be "smart"? What are the benefits of being "smart"?
- What makes Hong Kong a unique global city?
- How does Hong Kong create its smart city development plan?
- Why are smart city initiatives necessary?


### Case Studies

Detailed analyses on smart city planning in Chicago, Tokyo, Singapore and India were presented during tutorials. Cases were compared with the situation of Hong Kong, where students were encouraged to ponder what Hong Kong could learn from the studied examples.

Learning objectives:

- To provide students with a better understanding of how smart city works in different geographies
- To provoke students' brainstorming of ways to progress the Hong Kong Smart City Blueprint.


### Seminars

Guests of diverse professions were invited to the class to give seminars about smart city development, discussing:

- Web scraping and data mining tools to extract data from big data sources, e.g. social media and government websites
- Hot social issues about smart city development, e.g. e-scooter and smart lamppost

Learning objectives:

- To give students a primary view of applying big data on deeper analyses on smart urban planning
- To provide students with better knowledge of the advantages and challenges in the building of a smart city


## Students' Feedback

"A good companion to the course"

"This video should be shown when the course is offered again"

"I have a better idea of the structure of this course"


The seminars are very useful


The seminars should be held next year

## Conclusion

This course equipped students with a better knowledge of the latest topics about smart city. First, basic concepts and features of a smart city as well as Hong Kong's Smart City Blueprint were introduced in the lecture. Second, smart city examples around the world were introduced in tutorials to inspire students' suggestions on the improvement of Hong Kong's existing Smart City Blueprint by the lessons learnt from overseas operations. Third, methods of big data application on smart urban planning, timely social issues related to smart city development and critiques were exchanged in the seminars. The mix of teaching activities -- e-modules, case studies and seminars -- have actualised the desired learning outcomes and received excellent feedback from students.

**Acknowledgements**
This poster is funded by a teaching grant "Developing Modules and Case Studies for Urban (Big) Data Analytics and Smart City Governance", awarded by the CUHK Teaching Development and Language Enhancement Grant (TDLEG) for 2019-22 (PI: Prof. Sylvia Y. He, Co-I. Prof. Mei-Po Kwan).

## P15: Teaching Smart Cities using E-modules, Cases, and Practitioner's Seminars

**Presented by**
Prof Sylvia HE, Department of Geography and Resource Management, The Chinese University of Hong Kong
Prof Mei-Po KWAN, Department of Geography and Resource Management, The Chinese University of Hong Kong
Mr Yu PAN, Department of Geography and Resource Management, The Chinese University of Hong Kong
Ms Xuan HE, Department of Geography and Resource Management, The Chinese University of Hong Kong
Mr Ka Kit SUN, Department of Geography and Resource Management, The Chinese University of Hong Kong

**Abstract**
Being an emerging urban development framework, the elements of smart city have been rapidly infused into our daily lives. We believe that the implementations of smart city initiatives would play a growingly important role in the future society. Possession of sufficient knowledge on the smart city concept is therefore essential to students' knowledge and career prosperity in the new era of innovation and technology. However, despite the prevalent discussion within the academic and institutional communities, the concrete idea pertaining to a smart city may remain fuzzy to undergraduate students. To teach a newly offered course on smart and sustainable cities (GRMD2501: Theory and Practice of Smart Cities), we employed a combination of multimedia and interactive teaching activities. First, an e-module was included to offer an overview to the course, the smart city concept and the Smart City Blueprint of Hong Kong. Second, case studies of smart cities around the world were developed and discussed during tutorials to provoke in-depth understanding and reflection from students on smart cities in practice. Third, we invited speakers from various professions in Hong Kong and overseas to give seminars on urban big data analytics, smart city projects in real life and new initiatives such as the Common Spatial Data Infrastructure (CSDI). The teaching and learning activities received vastly positive feedback from students and facilitated the accomplishment of the designed learning outcomes.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

Hi everyone! After 2 years of "Learning Chinese Outside the Classroom", we get some new changes in this year!

Oh my god! What on earth are those new changes!? Everyone, follow us please!

18/19 EXPO

19/20 EXPO

香港中文大學中國語言及文學系
Department of Chinese Language and Literature, CUHK


# LEARNING CHINESE OUTSIDE THE CLASSROOM

**Principal Supervisor: Prof. TANG Sze Wing**

Co-Supervisors: Dr. CHEUNG Wing Mui, Dr. TSUI Ha, Dr. LAI Pit Shun, Dr. CHENG Siu Pong

## INTERACTIVE LECTURES 語文講堂

- It aims at enhancing students' level of Chinese language and culture awareness, and developing their level of Chinese language usage in the daily life.
- For 2020/21, our team organized 32 activities in the 4 main themes - Chinese language, Chinese literature, Chinese culture and practical use of Chinese.
- In total, 5888 students from 8 faculties enrolled in the activities.

Overall, more than 89% of students were satisfied with the activities.

More than 90% of students were satisfied with the teachers' performance.


## LITERARY CUHK 文學中大


- It aiming to promote literary creation on campus and encourage students to coalesce views they have on the scenery or the community of CUHK.
- For 2016-2020: 1,394 essays were from "University Chinese I & II" and the Open class, while 88 outstanding essays were selected by renowned judges. 5 seminars on creative writing were held as well.

Scan QR code to know more!

Outstanding Essays for the 5th competition

Awardees Interview Series

- To broaden the coverage of the curriculum and strengthen the self-learning abilities of the students, our team has initiated different eLearning tools to assist the teaching and learning of the University Chinese Core. Some essential tools are listed out below:

Language Map of CUHK 2.0

CanTOUEse Mobile App


Micro-modules of Cantonese Romanization

- More self-learning micro-modules covering various topics are in the final stage of development.
- Various staff development activities concerning the usage of eLearning tools had been conducted to assist teachers to cope with virtual teaching and learning.

To view more, please feel free to scan the QR code!

## E-LEARNING 電子學習

## P16: Learning Chinese Outside the Classroom

**Presented by**
Prof Sze Wing TANG, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Dr Wing Mui CHEUNG, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Dr Pit Shun LAI, Department of Chinese Language and Literature, The Chinese University of Hong Kong

**Abstract**
"Learning Chinese outside the Classroom" is one of the funded projects of TDLEG (2019-22), aiming to provide a more diverse Chinese-language learning path to students to help them expand their learning horizon according to their learning progress and needs. The project consists of three main activities: 1. "Interactive Lectures" (語文講堂) It aims at enhancing students' level of Chinese language and culture awareness, developing students' level of Chinese language usage in the daily life. Different lectures, workshops and cultural talks were organized, whose participants were generally satisfied with the activities and the teachers' performance. 2. "'Literary CUHK' Essay Competition" (文學中大徵文比賽) It aims to promote literary creation in campus and encourage students to coalesce views they have on the scenery or community of CUHK. Award ceremonies were held annually, to which awardees, judges, and guests were invited to attend and share their experiences in creative writing. 3. "e-Learning Chinese" (電子學習) It aims to broaden the coverage of the curriculum and strengthen the self-learning ability of students. Various teacher professional development events and materials concerning the usage of e-Learning tools had been conducted and introduced. In this presentation, the rationale of "Learning Chinese outside the Classroom", its development, and its implementation to the curriculum in University Chinese will be introduced and discussed.

**Video Stream**

Video
Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
Curriculum/Course Design

# Multi-media Modules of Speaking in CHLT 1200 University Chinese II

*Prof. Tang Sze Wing (Principal Investigator), Dr. Cheung Wing Mui, Dr. Lai Pit Shun, Mr. Kwok Kim Fung, Mr. Wong Nap Hei*

## *Introduction*

Speaking assessment is an essential part of the curriculum of CHLT 1200 "University Chinese II", which consists of three learning outcomes: expression, organization, and argumentative skills. However, the teaching of expression skills is largely hindered by the limitations of ZOOM-teaching. Therefore, pre-recorded online videos are introduced to aid online teaching.

In 2019/20, our team have been funded by the "Special Funding Scheme for Online Learning from Teaching Development and Language Enhancement Grant" for producing 12 sample videos of excellent work on speaking assessment. Speeches given by students are demonstrated in the videos. All videos are supplied with subtitles, concise annotations and different special effects, to illustrate how students may apply expression skills in their speeches.

## *Timeline*

- *3/2020* *Grant received*
- *4/2020* *First 3 videos were produced and were applied in the teaching of University Chinese*
- *6/2020* *The application method and trial situation of the videos were introduced in the Retreat of University Chinese*
- *9/2020* *The shooting of all 12 videos was done. 6 of them were supplied with annotations and were applied in the teaching of University Chinese.*
- *10/2020* *All 12 videos were completed*

*View the videos*

## *Teaching Application*

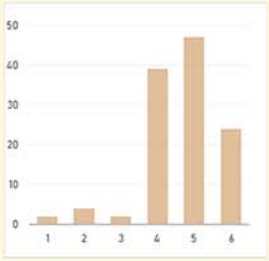
**There are 3 major ways of using the videos:**

1. Teachers first teach students the basic concepts of expression skills, then strengthen their learning outcomes by playing the videos with annotations.

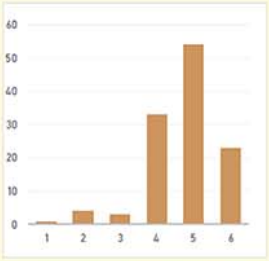
2. Teachers first play the videos without annotations, then let the students to think and discuss the expression skills shown in the videos. After that, the videos with annotations are played to make sure the students learn the correct skills.

3. Teachers use the videos as self-learning materials and encourage students to view by themselves.

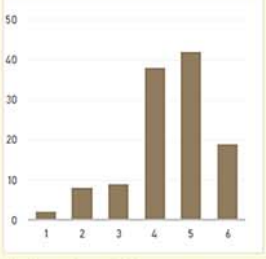
## *Student's Opinion*




*"The videos help me understand the usage of body language"*




*"The videos help me understand the marking criteria of the course"*




*"The videos help me improve my expression skills"*

**11 concrete opinions from students were received. In general, there are three kinds of opinions:**

1. The videos help me grasp the essentials of speaking skills!

2. I would prefer to include the weak points of the demonstrations in the annotations.

3. I would like to see demonstrations of others such as YouTubers!

## *Reflections*

**From the results of teaching application and questionnaires, we conclude that:**

1. It is good to let students demonstrate their expression skills for other students because it can effectively generate peer effect. However, to optimize the demonstrations, more training is required.

2. The annotations should only point out serious problem to prevent excessive information, which may weaken the motivation to watch the videos.

3. More teachers may be invited to join the annotation process and to recommend students for demonstrations. That would improve the quality of the demonstrations and the students would have more choices.

## *Acknowledgement*

*Special Funding Scheme for Online Learning from Teaching Development and Language Enhancement Grant*

香港中文大學中國語言及文學系
Department of Chinese Language and Literature, CUHK

# P17: Multi-media Modules of Speaking in CHLT 1200 University Chinese II

**Presented by**
Dr Pit Shun LAI, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Prof Sze Wing TANG, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Dr Wing Mui CHEUNG, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Mr Kim Fung KWOK, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Mr Nap Hei FUNG, Department of Chinese Language and Literature, The Chinese University of Hong Kong

**Abstract**
Teaching spoken language skills is an essential part of the curriculum of CHLT 1200 "University Chinese II", which consists of three learning outcomes: expression, organization, and argumentative skills. However, the teaching of expression skills is largely hindered by the limitations of ZOOM-teaching. A timely project on the development of an online learning platform that facilitates the learning of spoken language skills has been generously supported by the Special Funding Scheme for Online Learning from TDLEG in 2019/20 to solve the potential problems. 12 sample videos of excellent work on speaking assessment are produced, aiming at supporting the online teaching of expression skills. Speeches given by students are demonstrated in the videos, which are supplied with subtitles and annotations to illustrate how to apply expression skills. The sample videos as mentioned have been implemented to the curriculum of CHLT 1200 "University Chinese II" in stages for 3 terms starting from the Second Term of 2019/20. Comments and feedback from the frontline teachers and students have been collected by the Department of Chinese Language and Literature. The poster will briefly summarize the contents of the assessment, including the production process of the sample videos, principles adopted in formulating the annotations, application methods of the contents in teaching, and data and opinions collected from students. Apart from demonstrating the results, it is hoped that the experience of the application of the online learning platform in the curriculum and its limitations will be examined.

**Video Stream**

Video
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**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
MM, SPOC and MOOC

## Why are we creating this course?

– MOOC (Massive Open Online Class) has emerged as a popular learning mode in the last decade.
– There is no available MOOC on Cantonese linguistics out there.

## What is the course about?

Course name:
Introduction to Cantonese Studies
– NOT a course teaching how to speak Cantonese.
– Basics of Cantonese linguistics: history, regional distribution, phonological system, grammar...

## Who can study this course?

Anyone interested in understanding more about Cantonese or having a taste of linguistics.

## How do we design the course contents?

Learners may not have any knowledge of linguistics theories.
– Concise course contents: accurate but simple.
– Condensed in short video clips.

# EDUCATION UNDER THE PANDEMIC:

## Assisting students to self-learn Cantonese linguistics via a MOOC

Prof. Sze Wing TANG, Dr. Siu Pong CHENG, Ms. Mei Ying KI

## More Resources...

粵拼
微課程

1. Micro-modules on Cantonese Romanisation (Jyutping粵拼)

2. Mobile app CanTONEse providing information on Cantonese tones

## Project Milestones

| | | |
|---|---|---|
| CUHK KEEP | Cantonese | - a simpler version - for CUHK students<br>- collect feedback and release to the public |
| XuetangX 學堂在線 | Mandarin | - an extensive version<br>- for Mandarin speakers |
| Coursera | English | - an extensive version<br>- for English speakers |

## Outcome

1. Analyse Cantonese language features through a linguistic approach
2. Apply basic linguistic theories and research methods in further studies

中文系 香港中文大學中國語言及文學系
Department of Chinese Language and Literature, CUHK

陳廷驊基金會
The D. H. Chen Foundation

## P18: Education under the Pandemic: Assisting Students to Self-learn Cantonese Linguistics via a MOOC

**Presented by**
Dr Siu Pong CHENG, Department of Chinese Language and Literature, The Chinese University of Hong Kong
Ms Mei Ying KI, Department of Chinese Language and Literature, The Chinese University of Hong Kong

**Abstract**
MOOCs (Massive Open Online Classes) have emerged as a more and more popular learning mode in the last decade. It is well-known for many advantages: open to everyone in the world, immediate feedback, students can self-learn at any time everywhere, etc. Its impact becomes even more prominent under the pandemic. This is why we are working on the MOOC "Introduction to Cantonese Studies". It is a course introducing the basics of Cantonese linguistics, including but not limited to the history, regional distribution, phonological system, and grammar of Cantonese. The online course aims at anyone interested in understanding more about Cantonese or having a taste of linguistics. To make sure that the course is suitable for those without a background of linguistics theories, concise knowledge is thus included in our course. Instead of providing redundant information, we try to simplify some complex theories and present them in video clips with a short duration. It should be easier for students without background knowledge to catch up and stay focused meanwhile. Besides the video clips, there are more resources to aid students in self-learning. The course will be launched on CUHK KEEP soon, on which quizzes with immediate customised responses will be available so that students can self-evaluate their understanding of the course materials. Additionally, the Department of Chinese Language and Literature has developed micro-modules on Cantonese Romanisation (also known as Jyutping) and a mobile app "CanTONEse", which give comprehensive information on Cantonese phonology. Students can make use of these tools to gain a deeper understanding of the course materials. There are three milestones for the whole MOOC project: firstly, we will launch a simpler version (in Cantonese) on CUHK KEEP; secondly, a more extensive version (in Mandarin) will be launched on XuetangX; at the last stage, the same version (in English) will be launched on Coursera. We are currently working on the fir

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**Areas of Interest**
MM, SPOC and MOOC

# Solve Real-world Problems via Online Team Collaboration: Integrate Critical Thinking and Design Thinking Skills in Student Projects

Jenny Tian & Gentiana Cheung

School of Hotel & Tourism Management
Faculty of Business Administration

CHEER (Collaborative Hospitality Education Experience & Research) is a collaboration program between CUHK's School of Hotel & Tourism Management (SHTM) and Boston University's School of Hospitality Administration (SHA) since 2016. In 2020-21, we designed two CHEER projects in two pairs of CU and BU courses. Students from both universities formed groups to solve business problems for hospitality companies. In the human resource management courses, students helped two Hyatt hotels (in Hong Kong and Boston respectively) identify solutions to improve employee experience during COVID-19. In the lodging management courses, students participated in a hotel operations simulation contest. Despite the different tasks, the projects followed the same design rationale: (1) to offer opportunities for students to solve real business problems, and (2) to enhance students' critical thinking skills (through researching and evaluating theories and industry practices), design thinking skills (through creative problem-solving), cross-cultural sensitivity, and online team collaboration skills.

Acknowledgements: This project was funded by the Grant Scheme for Internationalization of Curriculum for the 2019-22 Triennium (TDLEG 2019-22).

## 1. Design Rationale

Real-world Problems

Design Thinking

Online Team Collaboration

Analytical Thinking

## 2. Implementation - OB/HR

How can hotel HR help employees stay well, supported, and connected to their organizations?

A) Instructor Interviews with Hyatt HR Managers

B) Online Design Thinking Tutorial Sessions

C) Student Collaboration on Mural

D) Presentation on Zoom


2 Universities
CUHK &
Boston University

4 Courses
OB/HR &
Lodging Management

2 Projects
Problem-solving &
Business simulation

34 Groups
13 in OB/HR
21 in Lodging Mgt

## 3. Implementation - Lodging Management

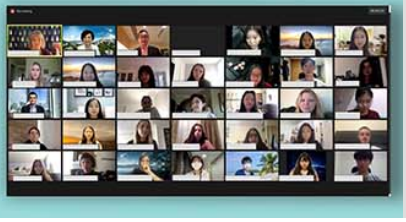
A) Simulation Preparation



B) Student Collaboration on Mural

C) Weekly Tasks


D) Debriefing and Discussion



# CHEER

# P19: Solve Real-world Problems via Online Team Collaboration: Integrate Critical Thinking and Design Thinking Skills in Student Projects

**Presented by**
Dr Jenny TIAN, School of Hotel and Tourism Management, The Chinese University of Hong Kong
Ms Gentiana CHEUNG, School of Hotel & Tourism Management, The Chinese University of Hong Kong

**Abstract**
CHEER (Collaborative Hospitality Education Experience & Research) is a collaboration program between CUHK's School of Hotel & Tourism Management (SHTM) and Boston University's School of Hospitality Administration (SHA) since 2016. In 2020-21, we designed two CHEER projects in two pairs of CU and BU courses. Students from both universities formed groups to solve business problems for hospitality companies. In the organizational behavior and human resource management courses, students helped two Hyatt hotels (in Hong Kong and Boston respectively) identify solutions to improve employee experience during COVID-19. In the lodging management courses, students participated in a hotel operations simulation contest. Despite the different tasks, the projects followed the same design rationale: (1) to offer opportunities for students to solve real business problems, and (2) to enhance students' critical thinking skills (through researching and evaluating theories and industry practices), design thinking skills (through creative problem-solving), cross-cultural sensitivity, and online team collaboration skills.

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Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

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**Areas of Interest**
New Normal in Education

The Chinese University of Hong Kong

# How the COVID-19 pandemic and teaching modes in university physical education influence students' physical literacy

Choi Siu Ming[1], Sum Kim Wai Raymond[1], Leung Fung Lin Elean[2]

[1] Department of Sports Science and Physical Education, The Chinese University of Hong Kong
[2] Physical Education Unit, The Chinese University of Hong Kong

## INTRODUCTION

The COVID-19 has not only directly affected society, but the approach taken in containing the pandemic has raised indirect public health concerns. To prevent the widespread pandemic, our university decided to alter course arrangements which were delivered through online video conferencing format or hybrid mode in this academic year. Comparing with the face-to-face format, this may have negatively affected students' physical activity participation and physical literacy progress during early adulthood.

## TEACHING AND LEARNING STRATEGIES

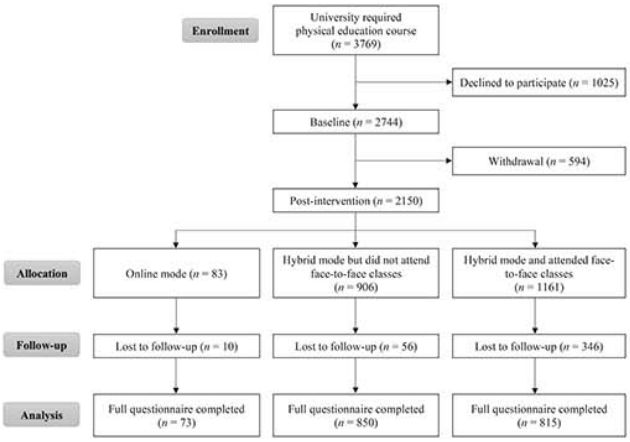
Online mode:

**Skill Demonstration** → **Skill and Tactics Analysis** → **Physical Activity**

Hybrid mode: Lessons were combined face-to-face and synchronous online academic activities. Students can voluntarily choose to attend either one mode in the last three lessons with key pandemic prevention protocols in place.

**Warm-up** → **Skills Practices** → **Gameplay**

**Figure 1**
Participant flow of enrollment and allocation in the prospective cohort study.



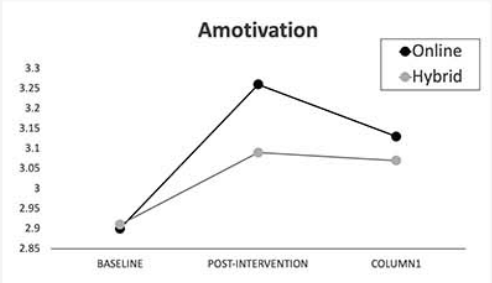

## METHODS

The prospective cohort study investigated the impact of online and hybrid teaching modes in university required physical education on students' physical literacy-related correlates. The survey was constructed and distributed by using an online platform, Qualtrics. A group of 1738 university students (42% male) aged 18.52 (± 1.29) responded to the survey at the start, the end, and four weeks of/after various courses. A series of repeated-measures MANOVAs were used to evaluate the effects of teaching modes on outcome measures.

## RESULT AND DISCUSSION

Regardless whether online or hybrid teaching modes are utilized, university physical education curriculum could motivate students to participate in daily physical activities during the pandemic period. Results also indicated that participants in the online teaching mode may experience a learning predicament over those in the hybrid one. It may inhibit the students' interactions among peers and teachers and further hinder the development of physical competence.

**Figure 2**
The interaction effect of amotivation across group and time (n = 1738).




Practically, virtual pedagogies with a more empowering climate should be invented and introduced to propagate more autonomous motivation and to develop physical competence which may revamp its current situation.

**Acknowledgements**
This project was supported by the Teaching Development and Learning Enhancement Grant (7052014).

# P20: How the COVID-19 Pandemic and Teaching Modes in University Physical Education Influence Students' Physical Literacy

**Presented by**
Mr Siu Ming CHOI, Department of Sports Science and Physical Education, The Chinese University of Hong Kong
Prof Raymond Kim Wai SUM, Department of Sports Science and Physical Education, The Chinese University of Hong Kong
Dr Elean Fung Lin LEUNG, Physical Education Unit, The Chinese University of Hong Kong

**Abstract**
This study was conducted during the period of the COVID-19 pandemic. To prevent the widespread pandemic, the university decided to alter course arrangements which were delivered through online video conferencing format or hybrid mode. The prospective cohort study investigated the impact of online and hybrid teaching modes in university required physical education on students' physical literacy-related correlates. Comparing with the face-to-face format, this may intensely affect students' physical literacy journey during early adulthood. The survey was constructed and distributed by using an online platform, Qualtrics. A group of 1738 university students (42% male) aged 18.52 (± 1.29) responded to the survey at the start of, the end of, and four weeks after various courses. The structural equational modelling determined that motivation and physical activity levels were negatively related to physical competence and knowledge and understanding. Further repeated-measure analyses recognised the interaction effect of amotivation. Results indicated that participants in the online teaching mode may experience a learning predicament over those in the hybrid one. Practically, the physical literacy teaching strategies in nurturing motivation and physical competence should be reinforced.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
New Normal in Education

# Implementation of Game-based Courseware:

Authors: Dr. YEUNG Hang Mee[1], Dr. HWANG Isabel[1], Ms. TANG Tracy[1] & Mr. TANG Taylor[2]

# DNA WONDERLAND

## in foundation course for health sciences I & II

1: Division of Education, School of Biomedical Sciences, Faculty of Medicine CUHK
2: Information and Technology Services Center CUHK

## 01 BACKGROUND

Deoxyribonucleic acid (DNA) is the central genetic material in human body. There is a variety ofa pplications about DNA analysis such as disease detections, cancer risks and recently on the COVID-19 test in patient's samples. Our team would like to develop an interactive game-based courseware called "The DNA Wonderland" for medicine faculty package to focus on the DNA replication mechanism and implications of DNA mismatch and development of genetic diseases.

## 02 METHODOLOGY

In this project, three games with storyline about DNA are developed to evaluate how well the students understand about the knowledge delivered by the games.

All games can be applicable to the MEDF1010 Foundation course for health sciences I (for MBChB only) and the MEDF1012A Foundation course for health sciences II with their corresponding lectures and tutorials. This courseware is fully accessible to our students via CUHK Blackboard.

Students are encouraged to login to the courseware before/after the lectures. An e-survey is incorporated at the end of the courseware to obtain feedbacks from students on the core materials, web interface and ease of use.


## 03 RESULTS

Based on the e-survey results, this courseware is well-accepted by students, and it has facilitated them to understand about DNA in a simple and interesting way. We are confident that this project can achieve the learning outcomes of the foundation courses such as demonstration of an integrative understanding on the cellular biology and applications of concepts to individuals and community.

## 04 STUDENTS' FEEDBACK

- The courseware is really attractive because of the ideas of using different facilities in the amusement park;
- The courseware is already excellent;
- The game looks interesting;
- The courseware approach is interesting.

**Acknowledgement:**

This project was approved and supported by the Courseware Development Grant Scheme, 2019-2022 CUHK.

## P21: Implementation of Game-based Courseware - The DNA Wonderland in Foundation Course for Health Sciences I & II

**Presented by**
Dr Hang Mee YEUNG, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Isabel HWANG, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Ms Tracy TANG, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Mr Taylor TANG, Information Technology Services Centre, The Chinese University of Hong Kong

**Abstract**
Deoxyribonucleic acid (DNA) is the central genetic material in human body. There is a variety of applications about DNA analysis such as disease detections, cancer risks and recently on the COVID-19 test in patient's samples. Our team developed an interactive game-based courseware - the DNA wonderland for medicine faculty package to focus on the nature of DNA and its importance for inheritance, the mechanism of DNA replication and implications of DNA mismatch and development of genetic diseases. This courseware was fully accessible to our students via CUHK Blackboard with three games as components to test about student's knowledge on particular topics. To summarize, we received very positive feedbacks on the courseware design from students based on the e-survey. For the further development, an eLearning pedagogy research can be explored in this courseware project. We aimed at enriching our target students (mainly Year-1 study) in different disciplines to nourish their interests in learning advanced knowledge of cellular biology at senior year study.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# From Virtual Reality to Mixed-Reality: Application of Extended Reality Technologies for Biochemistry and Cell Biology Education

***PHK Ngai, FH Lo, SK Kong & PC Shaw***

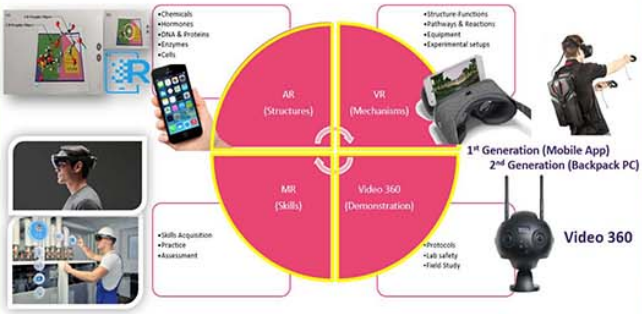
***School of Life Sciences***

## Introduction

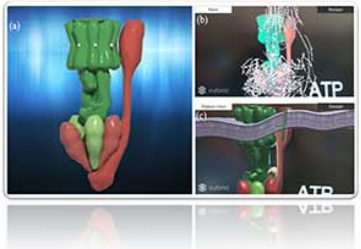
Extended Reality (XR) refers to a collection of technologies that enhance the senses of human by interweaving the real and virtual environments through computer simulations and wearable device. It provides a myriad of functions ranging from (i) generating simple 3D objects, (ii) providing additional information about the real word, (iii) creating an immersive learning platform, to (iv) blending the real and virtual objects into an immersive environment. The technologies also evolved from unidirectional display of simulated objects to sophisticated gaming consoles that allow multiple attempts of interactive learning tasks. Representative forms include animated holograms, virtual reality (VR), augmented reality (AR) and mixed-reality (MR) technologies. In this poster presentation session, the recent development of XR technologies in SLS and how these technologies enhance students' learning will be discussed.

## Timeline of XR Technologies Development in SLS


## Unleashing the Power of Virtual technologies

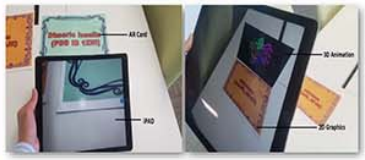



## Augmented Reality: Use of mobile device (e.g. cell phones / ipads) and mobile apps




Learning of cell structure & functions

- Animated structure and mechanism of ATP synthase
- Different ways of presentation of protein structure
- User control via the touch-screen of mobile cell phone
- Printed paper cards/figures and a sesitive phone camera needed

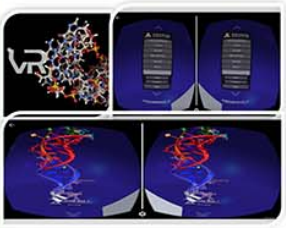



Learning of molecular structure

- Animated structure of compounds, metabolites & signaling molecules
- Different views of chemical structure (e.g. 2D/3D)
- Narration of the features and functions of molecules
- 3rd party App "HP Reveal" used

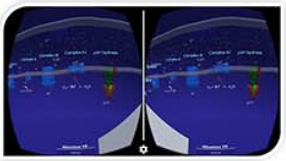
## Virtual Reality: Computer Simulation; Immersive

*1st Gen – Use of a small size VR headset (offering limited control)*



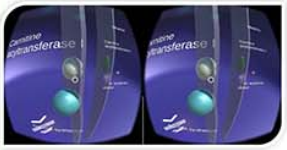
Learning of biomolecules

- Animated mechanism of the DNA, RNA, tRNA and other biomolecules



Learning of Biological Mechanisms

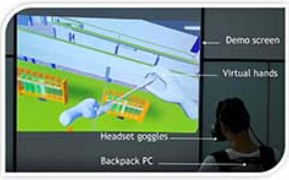
- Animated mechanism of the mitochondrial Electron Transport Chain (ETC)
- Basic control of different user views
- Headset goggles and mobile phone used
- Low costs for equipment/ portable
- Downloadable mobile APPs



Learning of Biological pathways

- Animated mechanism of the fatty acids entering into mitochondria via the acyl-carnitine/carnitine transporter
- Narrative explanation provided
- Limited user control and fully virtual

*2nd Gen – Use of handheld controllers & backpack PC*
*(more control, heavy & larger working area needed)*




Learning of biological assays and general laboratory skills

Learning of large equipment

- Gas Chromatography-Mass spectrometry (GCMS)
- HTC Viv VR headset and backpack PC
- Immersive view with narration
- Heavy & High cost; no downloaded App
- Limited updates on the developed Apps

## Mixed Reality: Computer Graphics & Real Objects

***Use of headsets & motion sensors (sensitive controls)***

Learning of advanced cell culture techniques

- Culturing cancer cell lines and studies
- Anti-bacterial assays & safety issues
- Real background and objects
- No handheld control device needed

## Discussion

(i) Selection of XR technologies depends on the types of skill training/ domain knowledge; (ii) Integration of XR learning modules into the curriculum has to be coherent and pedagogically sound; (iii) More incentives for engaging students in the XR modules.

## Future perspectives

(i) XR with internet connection for collaborative learning (Difficulties: software development; bandwidth; cost); (ii) Enriching the elements of gamification; (iii) Incorporated with interactive assessment tools; (iv) More types of stimulatory signals (e.g. olfactory & tactile) for the training of biochemical tests and use of equipment; (vi) Offering a sense of motion/ momentum for users for the training of handling of laboratory animals, use of large facilities, field-study and surgery, etc.

## Acknowledgement

The XR products were developed in a series of projects supported by TDLEG, MMCDG, CDG funding and The Chinese University of Hong Kong.

# P22: From Virtual Reality to Mixed-Reality: Application of Extended Reality Technologies for Biochemistry and Cell Biology Education

**Presented by**
Dr Hung-Kui NGAI, School of Life Sciences, The Chinese University of Hong Kong
Dr Fai-Hang LO, School of Life Sciences, The Chinese University of Hong Kong
Prof Siu-Kai KONG, School of Life Sciences, The Chinese University of Hong Kong
Prof Pang-Chui SHAW, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
Extended Reality (XR) refers to a collection of technologies that enhance the senses of human by interweaving the real and virtual environments through computer simulations and wearable device. It provides a myriad of functions ranging from (i) generating simple 3D objects, (ii) providing additional information about the real word, (iii) creating an immersive learning platform, to (iv) blending the real and virtual objects into an immersive environment. The technologies also evolved from unidirectional display of simulated objects to sophisticated gaming consoles that allow multiple attempts of interactive learning tasks. Representative forms include animated holograms, virtual reality (VR), augmented reality (AR) and mixed-reality (MR) technologies. In recent years, the world has seen a rapid advancement of XR technologies and an increased availability of high-grade commercial XR equipment such as HTC Vive, Samsung Oculus and Microsoft Hololens, etc. Since 2017, a group of teachers from the Biochemistry Programme have embarked a journey of developing XR-enhanced learning modules for increasing the effectiveness of teaching and learning of biochemistry. It covers not only the learning of biochemical theories and research methods, but also the acquisition of laboratory skills and practice of biological safety techniques for high-risk experiments such as cell-culture of infectious pathogens. In the poster presentation session, the project team will demonstrate how the application of XR technologies can enrich students' learning experience and facilitate the achievement of learning goals in the fields of biochemistry and cell biology. Finally, the team will also show how XR learning tools are integrated into the existing e-learning platform ("eLearnBiochem") and the Biochemistry curriculum.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

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**Areas of Interest**
Tools, Platforms and EduTech

# The Design, Implementation, and Evaluation of Virtual Discussion Boards in College General Education Tutorials

The Chinese University of Hong Kong

**Morningside College General Education Team:**
**Prof. Ann Huss, Maryellen Stohlman-Vanderveen, Juliet Levesque, Yifu Dong**
gemc@cuhk.edu.hk

Morningside College

## ABSTRACT

In Term 1 (2020/2021), Morningside College's General Education Team introduced discussion boards to their course, GEMC1001 Current Dilemmas and Their Histories, which utilizes a semi-flipped classroom model. The expectation was that the assignments would improve student familiarity with course material and better prepare them to participate actively in tutorial discussions, while also fostering a sense of student community during a period of remote learning.

Following the conclusion of the semester, students were asked to complete a survey evaluating the use of the discussion boards and their individual experiences with them. The tutors for the course, Morningside College's Junior Fellow Team, also conducted a linguistic analysis of the students' discussion board posts and replies In order to quantify the quality of student work and better understand the effectivity of different question styles. The results from this survey and analysis will help to inform the design and implementation of the discussion boards in the upcoming semester.

## DESIGN

### DISCUSSION BOARD

**Semi-flipped model:**
lecture --> reading & discussion board --> tutorial

Students could not see their peers' posts on the discussion board until posting their own.

Each week, at least one **content-based** question, and one **concept application** question was asked.

Tutors integrated discussion board posts and replies into weekly tutorials by quoting student posts on PowerPoint slides for further group discussion and by integrating discussion topics into the lesson.

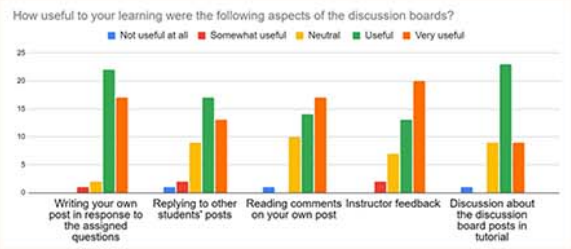
### EVALUATION

**3 Step Evaluation:**

- **Post-semester survey**
  - Students completed a survey about their experience with the discussion board and the discussion board's effects on their learning in the course.
- **Student Response Analysis**
  - Junior Fellows reread all student posts and replies, linguistically coded the responses for various expressions of interests, and gave each response a quality score.
  - Expressions of interest included references to outside materials and personal experiences, independent extensions of course thinking, or expressions of productive disagreement.
  - Quantitative results from coding process were compiled for all six tutorials for each week of the course and compared against one another
- **Qualitative Analysis of Questions**
  - Coded weekly discussion board questions to identify what the question was asking for
  - Analyzed weekly questions based on the frequency of code appearances and quality of responses
  - Identified what made a successful vs an unsuccessful discussion board question

## RESULTS

### POST-SEMESTER SURVEY




Survey results showed that **students had an overall positive view of the discussion boards:**

- 98% of the students who completed the survey reported that discussion boards were **helpful to their learning and improved the overall course experience**, although many felt that having posts nearly every week was too demanding.
- Students reported that **tutor feedback on their posts and their incorporation into tutorial discussions were the most useful aspects** of the discussion board's implementation.
- Several students mentioned that the **discussion board interactions made them feel closer to their peers** despite remote learning.

### STUDENT RESPONSE & QUESTION ANALYSIS

**Week 6 Questions: Dilemmas in Law, Foxconn Suicides**

1) Who is responsible for the suicides / workers' distress?

2) What is the larger issue at hand / is this part of a bigger problem? What are some of the contributors?

3) Choose one of the philosophical frameworks from this course. According to the framework, who/what is responsible for the deaths of the workers? How could the suicides have been prevented?

**Step 1: Analyze questions to identify their objectives**

Q1 asks students to reflect on lecture and assign responsibility. Q2 asks them to identify other stakeholders and potential contributing factors to issue. Q3 asks them to apply a philosophical framework and reason about how the suicides could have been prevented // Codes: Reading /lecture Response, Opinion, Critical Reasoning, Apply Course Knowledge

**Step 2: Compare to results of linguistic coding**

**68 posts, 19 codes.** Most codes identified references to outside material , few questions posed codes and independent extension of thinking codes. 3 (1's) 50 (2's) 15 (3's). **134 replies, 96 codes.** Mostly constructive criticism and questions posed. 31 (1s) 81 (2s) 22 (3s)

**Step 3: Determine what could be improved**

Very low code to post ratio, applied to replies too. Question two could be better clarified. Student posts started off strong but third question was frequently treated as an add-on (i.e "Philosopher X would agree/disagree with my argument). Question order may need to be adjusted.

**Revised Week 6 Questions**

1) Identify some of the contributing factors that led to the workers' suicides. Consider both personal and societal forces.

2) Choose one of the philosophical frameworks from this course. According to the framework, who/what is responsible for the deaths of the workers?

3) Who do you think is responsible for the workers' suicides. How could the suicides have been prevented?

Student response analysis and subsequent question analysis showed:

- **Question order mattered.** Students would begin writing their responses well but then stop once they reached the word count.
- **Questions should avoid being too specific.** Open-ended questions tended to provoke more interesting and diverse responses from students, which led to more interesting discussion in tutorials. Questions that were more narrow tended to limit students' responses.

## CONCLUSION

Overall, the investigation showed that the use of discussion boards improved the student experience and helped create a sense of community during a period of remote learning. Students felt that the use of discussion boards in the course aided their overall learning by providing them with a space to review course concepts, practice their writing skills, and develop further thoughts on the course material. Tutor feedback and the incorporation of the posts into the tutorial discussions were seen by the students as the most useful part of their implementation.

**Potential improvements for the use of discussion boards in the course include:**

- **Refining question design** to improve clarity without over-prescribing and limiting student responses. More open question design appears to promote more interesting and productive discussions, but unclear question design seems to lead to student confusion.
- **Setting clearer goals for the students' replies** by asking students to provide support for whether they agree or disagree with the post's author.
- **Providing more critical feedback.** Responses were previously graded on a four-point scale in which "4" was awarded so long as the student exhibited a sound understanding with detailed support. More rigorous grading and more recognition for outstanding posts may help motivate students.

Beyond the provision of data, this process allowed us to revisit student work from a new perspective, reflect on the impact of our teaching, and develop a better understanding of pedagogical processes. Plans for future study include the inclusion of a pre- and post-semester capacity-based survey measuring student confidence in areas related to the course's learning outcomes (comfortability with philosophical texts, writing/communication skills, critical thinking skills) in the next academic term. The goal of this survey is to investigate the effectiveness of different aspects of the course in supporting learning outcomes.

# P23: The Design, Implementation, and Evaluation of Virtual Discussion Boards in College General Education Tutorials

**Presented by**
Prof Ann HUSS, Morningside College General Education, The Chinese University of Hong Kong
Ms Maryellen STOHLMAN-VANDERVEE, Morningside College General Education, The Chinese University of Hong Kong
Ms Juliet LEVESQUE, Morningside College General Education, The Chinese University of Hong Kong
Mr Yifu DONG, Morningside College General Education, The Chinese University of Hong Kong

**Abstract**
In Term 1 (2020/2021), Morningside College's General Education team introduced the use of discussion boards into their course, GEMC 1001 – Current Dilemmas and Their Histories. Following weekly lectures and prior to tutorials the following week, students were required to write posts and reply to two of their peers on forums hosted through Blackboard. The expectation was that the assignment would improve student familiarity with course material and better prepare them to participate actively in tutorial discussions, while also fostering a sense of student community during a period of remote learning. Following the conclusion of the semester, students were asked to complete a survey evaluating the use of the discussion boards in the course and their individual experience with them. Received responses were overwhelmingly positive. The tutors for the course, Morningside College's Junior Fellow team, also conducted a qualitative analysis of the students' discussion board posts and replies to better understand the effectivity of different question styles and quality of student work. The results from this survey and analysis will help to inform the design and implementation of the discussion boards in upcoming semesters.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

# Online course "Three Case Studies in Biochemical and Biomedical Sciences" in KEEP

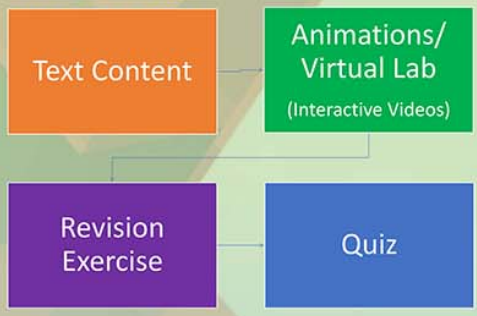
Professor Pang Chui Shaw, Ms Queenie P.Y. Lau
*Biochemistry Programme, School of Life Sciences, The Chinese University of Hong Kong*

## Introduction

An online course "Three Case Studies in Biochemical and Biomedical Sciences" (https://course.keep.edu.hk/course/177149) has three topics: **(1) Huntington's disease, (2) Human Papillomavirus Vaccine and (3) Genetic screening**. In each topic, there are three parts: Information for self-study, interactive animations/virtual labs and revision questions (MCQs). It has been hosted in KEEP platform since 2018.

In 2021, further enhancement of the course has been made. Re-development was completed in Mar 2021.
**The online course aims to provide higher level of engagement in studies and provide non-science learners, who have studied senior secondary school biology, more opportunities to understand biosciences topics. The course can also be used by junior students of our life sciences programmes as self-study materials for their internalization of what they have learnt from their fundamental courses in Biochemistry.**

## Course Design



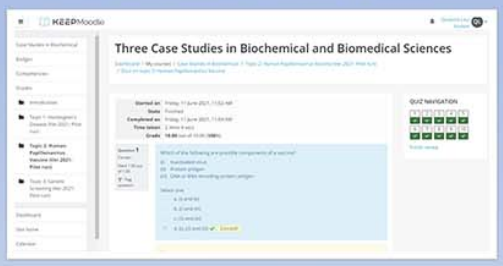

## Course Highlights

### 1. Re-developed Interactive Videos:

- Animated videos/virtual labs were re-developed so that Adobe Flash is not needed, more interactive components were added.

### 2. Online Quiz for Assessment:

- Apart from revision exercises, three online quizzes were added for learner's assessment.




### 3. Autogenerated Certificate:

- A Certificate of Achievement automatically generated upon passing the online quizzes of three topics.


## Evaluation

- **Course evaluation** was carried out (Mar-Jun 2021) to collect feedback on the KEEP course via open recruitment of participants from CUHK and selected secondary schools. Some refinements on the course were made. Overall results showed their satisfaction level of the course is high and overall experience is good.

**Overall satisfaction level of the course**

| (Percentage) | Very unsatisfied (1) | Unsatisfied (2) | Neutral (3) | Satisfied (4) | Very satisfied (5) | Total | *Average rating (1-5) |
|---|---|---|---|---|---|---|---|
| F6 students | 0.0% | 0.0% | 0.0% | 57.1% | 42.9% | 100.0% | 4.4 |
| University year one students | 0.0% | 0.0% | 0.0% | 83.3% | 16.7% | 100.0% | 4.2 |

**How would you rate your level of knowledge (before/after) you attend this online course?(1= Poor, 5= Excellent)**

| For F6 students (Percentage) | Poor (1) | Fair (2) | Average (3) | Good (4) | Excellent (5) | Total | *Average rating (1-5) |
|---|---|---|---|---|---|---|---|
| a. Level of knowledge "before" you attend this online course | 0.0% | 42.9% | 42.9% | 14.3% | 0.0% | 100.0% | 2.7 |
| b. Level of knowledge "after" you attend this online course | 0.0% | 0.0% | 28.6% | 28.6% | 42.9% | 100.0% | 4.1 |
| **Year 1 University students (Percentage)** | **Poor (1)** | **Fair (2)** | **Average (3)** | **Good (4)** | **Excellent (5)** | **Total** | ***Average rating (1-5)** |
| a. Level of knowledge "before" you attend this online course | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% | 3.0 |
| b. Level of knowledge "after" you attend this online course | 0.0% | 0.0% | 16.7% | 66.7% | 16.7% | 100.0% | 4.0 |

## What's next

1. Announcement to existing enrolled users on KEEP for the new version release. More participants who are interested in bioscience course are expected to enroll this online course in coming year.
2. Re-developed videos will be integrated to our Biochemistry e-learning platform for junior biochemistry and life science students as additional material for self-study.

## Acknowledgement

- **This project was funded by Teaching Development and Language Enhancement (TDLEG) for 2019-22 Triennium. (Ref: 4170809)**
- **Work collaboration with ITSC and KEEP**

# P24: Online course "Three Case Studies in Biochemical and Biomedical Sciences" in KEEP

**Presented by**
Prof P.C. SHAW, School of Life Sciences, The Chinese University of Hong Kong
Ms Queenie P.Y. LAU, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
An online course "Three Case Studies in Biochemical and Biomedical Sciences" has three topics: (1) Huntington's disease, (2) Human Papillomavirus Vaccine and (3) Genetic screening. In each topic, there are three parts: Information for self-study, interactive animations/virtual labs and revision questions (MCQs). The course provides higher level of engagement in studies and provide students more opportunities to understand biosciences topics. It has been hosted in KEEP platform since 2018. In 2021, further enhancement of the course has been made. These include: (1) re-develop the animations so that Adobe Flash is not needed, add/upgrade more interactive components to the existing animations and virtual labs; (2) add more MCQs into quizzes for learner's assessment; (3) update learning material; (4) provide a Certificate of Achievement automatically upon passing the on online exercises. Evaluation was carried out to collect feedback on the KEEP course via open recruitment of participants from CUHK and selected secondary schools.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# Online psycho-educational & Mental wellness hub for students in the medical field = [ehub]

## Aim of this project

- The CU Medicine Wellness Team believes that both quality and quantity of engagement and interaction between students and teachers is essential to students' mental and emotional health, and to their learning and professional identity formation.
- In this project, we pilot a series of online psychoeducational seminars/workshops, assisted by self-assessment tools, to strengthen student engagement, to identify students' needs and to learn self-help during the ongoing period of social distancing.
- These psychoeducational series conducted last year by experienced clinical psychologists are re-packaged into a series of interactive micro- module videos. These micro-module videos were themed and promoted by interactive e-posters (lazy bags), that will summarise the key tips and messages delivered in each seminar.
- Self-assessment tools are introduced for self-reviews to understand students' mental well-being amid the current pandemic and social isolation so that the students can be provided with appropriate support.


**Members**

*Student Wellness, Faculty of Medicine, CUHK*

Dr Isabel HWANG
Miss Winnie Tak Wai CHAN
Miss Cassie CHAN
Professor Sandra CHAN
Professor Simon NG
Dr Lawrence CHEN

*Information Technology and Service Center, CUHK*

Mr Ray Lee


## Creation of a theme-based ehub platform

A website is created to house a total of **10 different theme-based micro-modules**:












## Features of each micro-module

- Each micro-module video is transcribed to improve better comprehension and allow flexible viewing in sound-sensitive environments
- Each micro-module is ended with a Q&A
- Each micro-module is bundled with a lazy bag (懶人包)
- Self-assessment tool enables student users to gain better awareness of their mental well-being and empowers self-help
- Student privacy is protected as we only record user visit as "hit"

## What to do next?

- As the e-hub platform is just completed, the project team will prepare for its launch in September for all the medical students in 2021-2022.
- Efforts will be made to promote the e-hub to medical students, to measure its usage and effectiveness.


**Acknowledgment**

This Project is only made possible by the **Special Funding Scheme to Enhance Student Engagement and Address Student Learning Needs** which is supported by Teaching Development and Language Enhancement Grant (TDLEG) for the 2019-22 Triennium

# P25: Creation of an E-hub: An Online Psycho-educational & Mental Wellness Hub for Students in the Medical Field

**Presented by**
Dr Isabel HWANG, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Ms Winnie Tak Wai CHAN, Student Wellness, Faculty of Medicine, The Chinese University of Hong Kong
Ms Cassie CHAN, Student Wellness, Faculty of Medicine, The Chinese University of Hong Kong

**Abstract**
The COVID-19 pandemic has led teachers and educational administrators to quickly adopt remote learning to ensure that teaching is not disrupted. However, it is not clear how well-prepared our first-year students are to respond to this new normal mode of learning, especially if the COVID-19 crisis lingers fora long time. The long-standing social isolation and lack of on-campus learning has deprived our first-year students of the opportunity to form personal bonds with their peers and teachers. It is also very difficult for teachers to identify students with emotional problems when all classes are online. Our team believes that the quality and quantity of engagement and interaction between students and teachers is essential to students' mental and emotional health, and to their learning and professional identity formation. In this project, we will pilot a series of online psychoeducational seminars/workshops, assisted by e-assessment tools, to both strengthen student engagement and to identify students' needs during the ongoing period of social distancing. A series of psychoeducational seminars/ workshops that were conducted last year by an experienced clinical psychologist will be re-packaged into a series of interactive micro-module videos. These micro-module videos will be themed and promoted by interactive e-posters or infographic posters that will summarise the key tips and messages to be delivered in each seminar. E-assessment tools will be introduced for self-reviews to understand their mental distress during this period of pandemic crisis and current social isolation so that the students can be provided with appropriate support.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

# An E-Learning Platform for Junior Teachers and Teaching Assistants in the Faculty of Engineering

*LAW Ka Ho, HUANG Hejun, HAN Dongkun, LAU Tat Ming Darwin, LEE Ho Man Jimmy, JAGGI Sidharth, SO Man Cho Anthony, and WONG Tik Lun Franko*

Faculty of Engineering, CUHK

## Motivations of Our Work

Within the education of high-quality professional engineers, it is important to provide training to our teaching staff (both faculty members and teaching assistants) to ensure that the highest teaching quality can be provided to our students.

**Professional Development Course (PDC)**

- The courses are general in nature to all disciplines rather than being specific to Engineering
- Training sessions are typically once-off
- The number of training contact hours are limited
- Training and seminars are scattered and not accessible at a centralized location

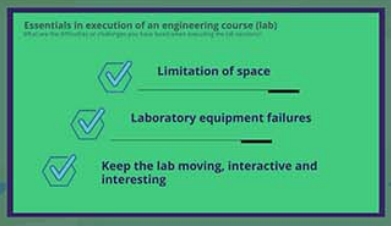
**Objectives of Our Online E-Learning Course**

- Provide micro-modules training material to our teachers, from course preparation, teaching of lectures and tutorials, running of laboratory classes, course assessment and reflection
- Provide case studies and inspiration to state-of-the-art teaching techniques to enhance our education, such as flipped classroom, gamification, VR/AR/MR and new assessment methods
- Disseminate and enhance interaction excellent teaching practice of exemplary teachers and teaching assistants

## Key Features of e-Learning Platform

**Feature 1**

- 20 sets of Micro-module courseware for junior teaching staff and assistants as training courses
- Micro-modules with different pedagogical approaches
- Tips and experiences shared by exemplary teachers


**Feature 2**

- Each micro-module courseware with built-in quizzes
- At least 5 questions in each quiz
- The trainees have to achieve a required score to pass the quizzes

**Feature 3**

- Teaching staffs or assistants would get familiar with different pedagogical approaches via studying these micro-modules
- Additional teaching tapes and materials shared by exemplary teachers are accessible on the platform


## Micro-modules of Different Pedagogical Approaches


Professor Anthony SO Professor Darwin LAU


Professor Irwin KING Professor Jimmy LEE

- APP, website development and AR/VR/MR techniques for engineering education
- Micro-modules generation and implementations in engineering courses
- Hands-on learning and experiential training with real-life scenario
- eLearning tools and resources
- Teaching activities design
- Flipped classroom
- Online teaching
- Online/ mixed mode assessment
- Student-instructor communication and interaction


Professor Paul LAM Dr. Macro HO

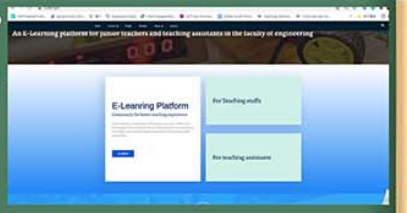

Professor LU Yi Chun Dr. HO Sin Cheung


Professor Jonathan CHOI Mr. Frankie YIP

## Benefits of the Developed Platform

This platform is developed to transfer the teaching experiences from exemplary teachers/tutors to junior teachers and teaching assistants:

- All micro-modules would be uploaded as complementary learning materials of the Professional Development Course (PDC)
- Supplying special trainings on the developments of new pedagogical approaches for engineering education
- Providing a flexible way to enhance the interaction between experienced teachers and junior teachers
- Collecting online feedback from teachers or tutors, and refining the courses based on the corresponding requests or suggestions




*Scan for more Info. about our Platform!!!*

***Acknowledgement*** This project is supported by the Teaching Development and Language Enhancement Grant from the Chinese University of Hong Kong.

# P26: The E-Learning Platform for Junior Teachers and Teaching Assistants in the Faculty of Engineering

**Presented by**
Mr Ka Ho LAW, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Mr Hejun HUANG, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Dr Dongkun HAN, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Prof Tat Ming Darwin LAU, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Prof Jimmy Ho Man LEE, Department of Computer Science and Engineering, The Chinese University of Hong Kong
Prof Sidharth JAGGI, Department of Information Engineering, The Chinese University of Hong Kong
Prof Anthony Man Cho SO, Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong
Dr Franko Tik Lun WONG, Centre for Learning Enhancement and Research, The Chinese University of Hong Kong

**Abstract**
As requested by engineering students and experts from the Hong Kong Institute of Engineers, the teaching performances of both junior staff and teaching assistants have a considerable space to be improved. Thus, further training would be necessary on junior teaching staff and assistants for the faculty of engineering, specifically, an eLearning training platform with a library of exemplary teaching experiences, categorized teaching approaches, and innovative teaching methodologies. The main idea of this project is to provide an eLearning platform that would be the library of complementary teaching resources at a faculty level for training all teaching staff and teaching assistants besides the Professional Development Course (PDC). The objectives of this project are aims (1) to disseminate excellent teaching practices of exemplary teachers; (2) to categorize and document different pedagogical approaches in engineering education; and (3) to enhance the interaction and teaching experience transfer from exemplary teachers/tutors to junior teachers and teaching assistants. Different from case-study in teaching, this project is initiated in interviewing exemplary teachers and tutors to collect and categorize some excellent teaching practices, including their personal experiences in the teaching career, collecting tapes of lectures and tutorials, creating the tapes of demonstrating experiments, documenting the teaching materials, teaching philosophies and courseware implementations. Then, all teaching tapes and related teaching materials would be clipped and clustered into a group of micro-modules based on different pedagogical approaches, like flipped classroom, micro-modules generation & implementations, teaching activities design, assessment and evaluation of engineering courses, and online teaching. The perspective eLearning resources would be disseminated to all junior teaching staff and assistants as complementary learning materials of PDC.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Inter-rater reliability on Objective Structured Clinical Examination (OSCE) assessment

**Dr Teddy TN Lam, Dr Keary Zhou, Dr Chui Ping Lee, Dr Celeste LY Ewig, Dr Kiwi WY Sun, Prof Yin Ting Cheung, Mr Wai Kin Cheng**
**School of Pharmacy, Faculty of Medicine, CUHK**

## Background

The OSCE was added to BPharm curriculum as a cumulative practical examination. It focused on assessing the graduating students' knowledge, competency, skills and professional attitude. We used a mixed face-to-face and online mode of assessment in our mock OSCE in June 2020.

## Objectives

To ensure objectivity and reliability of the OSCE by evaluating the inter-rater reliability and agreement of the assessment checklists during the mock OSCE.

## Methods

- 21 final-year students participated in the OSCE.
- Each station had an online structured checklist.
- Interactions between the students and examiners were recorded with zoom.
- A second independent assessor did duplicated scoring for 8-10 students from 3 interactive stations
- Agreement between the two scorers was evaluated.

## Results

| Station | Pharmacy Round (n=8) | | Physician Round (n=10) | | Patient Counselling (n=10) | |
|---|---|---|---|---|---|---|
| **Assessor** | Live | Recorded | Live | Recorded | Live | Recorded |
| **Knowledge** | | | | | | |
| **Max Score** | 10 | | 10 | | 12 | |
| **Mean Score** | 4.6 | 5.3 | 3.4 | 3 | 7.8 | 8.2 |
| **Pass** | 5 (62.5%) | 7 (87.5%) | 5 (50%) | 5 (50%) | 10 (100%) | 10 (100%) |
| **Agreement** | 75% | | 100% | | 100% | |
| **Cohen's κ** | 0.385 (Fair) | | 1 (Almost Perfect) | | N/A* | |
| **Professionalism** | | | | | | |
| **Max Score** | 8 | | 11 | | 12 | |
| **Mean Score** | 3.1 | 3.4 | 7.4 | 8.8 | 7 | 5.3 |
| **Pass** | 4 (50%) | 3 (37.5%) | 10 (100%) | 10 (100%) | 10 (100%) | 7 (70%) |
| **Agreement** | 87.5% | | 100% | | 70% | |
| **Cohen's κ** | 0.75 (Substantial) | | N/A* | | N/A** | |
| **Overall** | | | | | | |
| **Pass** | 4 (50%) | 3 (37.5%) | 5 (50%) | 5 (50%) | 9 (90%) | 4 (40%) |
| **Marginal Pass** | 1 (12.5%) | 4 (50%) | 0 (0%) | 5 (50%) | 0 (0%) | 3 (30%) |
| **Fail** | 3 (37.5%) | 1 (12.5%) | 5 (50%) | 0 (0%) | 1 (10%) | 3 (30%) |
| **Agreement** | 62.5% | | 50% | | 50% | |
| **Cohen's κ** | 0.467 (Moderate) | | 0.333 (Fair) | | 0.18 (Slight) | |

* κ is not available because both assessors graded all candidates a "Pass"
** κ=0 because one of the assessors graded all candidates a "Pass"

## Implications

The inter-rater reliability of the assessment checklists were satisfactory, though consensus has to be reinforced in grading the more subjective assessments. The results allowed us to clarify and optimize the checklists for the inaugural OSCE in May 2021.

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Acknowledgement : This project is funded by the Special Funding Scheme for Online Learning (supported by the TDLEG) 2019-20.

香港中文大學
The Chinese University of Hong Kong

School of Pharmacy CUHK

香港中文大學醫學院
Faculty of Medicine
The Chinese University of Hong Kong

# P27: Inter-rater Reliability on Objective Structured Clinical Examination (OSCE) Assessment

**Presented by**
Dr Teddy Tai Ning LAM, School of Pharmacy, The Chinese University of Hong Kong
Dr Chui Ping LEE, School of Pharmacy, The Chinese University of Hong Kong
Dr Keary ZHOU, School of Pharmacy, The Chinese University of Hong Kong
Dr Celeste LY EWIG, School of Pharmacy, The Chinese University of Hong Kong
Dr Kiwi WY SUN, School of Pharmacy, The Chinese University of Hong Kong
Prof Yin Ting CHEUNG, School of Pharmacy, The Chinese University of Hong Kong
Mr Wai Kin CHENG, School of Pharmacy, The Chinese University of Hong Kong

**Abstract**
Background: Since May 2021, the School of Pharmacy has added into its BPharm curriculum an Objective Structured Clinical Examination (OSCE) in the 4th year as a cumulative practical examination. The OSCE focuses on assessing the graduating students' knowledge, competency, skills and professional attitude. Project Objectives: To ensure that the assessments in the practical examination are conducted objectively, we evaluated the inter-rater reliability of the assessment checklists during the mock OSCE in June 2020. Methods: Twenty-one final-year students participated in the mock OSCE. The assessment of each station was conducted using an online structured checklist. Interactions between the students and examiners were recorded with zoom. We reviewed the recordings for 3 interactive stations, and randomly selected 8-10 students for a duplicate scoring by a second, independent rater. Agreement between the two scorers was evaluated and Cohen's kappa (κ) was used to quantify the level of inter-rater reliability. Results: In the knowledge domain, agreement between raters ranged from 75% to 100% (κ = 0.385 to 1). In the professionalism domain, agreement between raters ranged from 70% to 100% (κ = 0 to 1). In the overall assessment, which involved a more subjective assessment on communication skills, agreement were lower 50% - 62.5% (κ = 0.18 to 0.467). Implications: The inter-rater reliability of the assessment checklists are satisfactory, though consensus has to be reinforced in grading the more subjective assessments. The results allowed us to clarify and optimize the assessment checklists for the inaugural OSCE in May 2021.

**Video Stream**
Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

# READINGLIST

## A New Way to Find Your Course Materials

### Background

The CUHK Library has implemented ReadingList - a reading list management system, which allows Faculty, students and library staff to collaborate in the creation, management and evaluation of recommended learning resources. After the successful pilot run, ReadingList was launched in 2019.

### Features

The ReadingList is easy to use:

- Intuitive user interface that can be available on any device;
- Can be shared and maintained on Blackboard;
- Provides analytics and reports to give an overview of materials usage patterns


### Benefits

- Teaching staff can add materials from any resource – print/e-books, e-article, PDFs, and videos etc. to the ReadingList

- Students can find all of their course readings in one place and have direct access to them. They can also recommend resources, and post comments for discussion.

### Number of Lists in the academic year 2020/21

| Faculty | Total |
|---|---|
| Arts | 189 |
| Business Administration | 68 |
| Education | 67 |
| Engineering | 26 |
| General Education | 116 |
| Law | 132 |
| Medicine | 137 |
| Science | 62 |
| Social Science | 162 |
| **Grand Total** | **959** |

### Usage and Feedback

After the launch, both the usage and feedback have been very positive.

The Library provides user training to academic staff and has created a library guide and training videos to promote and support the use of ReadingList.



Further details and Resources:
https://libguides.lib.cuhk.edu.hk/ReadingList

Project Team

Lily Ko
Doris Chan
Cherrie Lee(Design)

香港中文大學
The Chinese University of Hong Kong

## P28: ReadingList - A New Way to Find your Course Materials

**Presented by**
Ms Lily KO, CUHK Library, The Chinese University of Hong Kong

**Abstract**
The CUHK Library has implemented ReadingList - a new reading list management system, which allows Faculty, students and library staff to collaborate in the creation, management and evaluation of recommended learning resources. The ReadingList features intuitive user interface that can be available on any device; is easy to use, can be shared and maintained on Blackboard; and provides analytics and reports to give an overview of materials usage patterns. ReadingList has exclusive features that allows teaching staff to add materials from basically any resource – hard copy books, online journals, PDFs, and YouTube videos are just a few examples. And students can find all of their course readings in one place and have direct access to them. They can also recommend resources, and post comments for discussion. After the launch, both the usage and feedback have been very positive. The Library provides user training to academic staff and has created a library guide and training videos to promote and support the use of ReadingList. This poster will share how this innovative reading list management system enhances the teaching & learning experience of our staff and students especially under the current hybrid teaching/learning mode.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Central Unit Platforms and Services

# Preparing Students for the New Normal: Tips for Successful Online Learning (SOL)

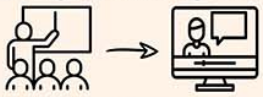

Presenters:

- Dr. Yvonne LOONG, The Independent Learning Centre (ILC)
- Dr. Felix CHAO, The Independent Learning Centre (ILC)
- Dr. Franko WONG, Centre for Learning Enhancement And Research (CLEAR)



## 01 Tips for Successful Online Learning (SOL)

- https:// ilc.link/sol
- Change of teaching mode

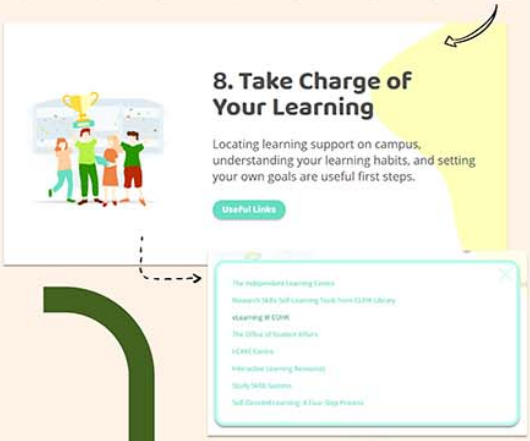


- Prepare all CUHK students for online learning

## 02 Features

- Succinct and visually appealing presentation
- Simple and practical tips for SOL






## 03 Promotion

- CLEAR: https://www.cuhk.edu.hk/clear/pointer/eLearning.html
- ILC Website: https://www.ilc.cuhk.edu.hk
- ITSC eLearning Resources Centre: https://www.elearning.cuhk.edu.hk/
- Study Skills @CUHK Library: https://bit.ly/35OTYKU


**+ 250%** views than


## 04 The Future


- Most visits in Sept, Jan and April
- More different kinds of promotion


學能提升研究中心
Centre for Learning Enhancement And Research

## P29: Preparing Students for the New Normal: Tips for Successful Online Learning

**Presented by**
Dr Yvonne LOONG, The Independent Learning Centre, The Chinese University of Hong Kong
Dr Franko WONG, The Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
In response to the outbreak of the novel coronavirus in early 2020, the CUHK management quickly, and decisively, announced on 25 January 2019 that all classes to be resumed on 17 February via the online mode. In just two weeks, all CUHK students, teachers, and administrators need to learn, adjust, practice, and use Zoom, in Hong Kong, mainland or overseas to do what we normally did face-to-face on campus. The learning curve was steep; but most, with the help of the ITSC and other support units, managed to survive, or even thrive, through the semester. To even better prepare all CUHK students for another semester, or perhaps another year, of online learning, the Independent Learning Centre (ILC) and Centre for Learning Enhancement And Research (CLEAR) collaboratively created Tips for Successful Online Learning, an online platform, in the summer of 2020 with very short notice. Aiming to give all users only 8 tips on how to succeed in online learning in the CUHK context, the platform, with its succinct and visually appealing presentation, after its launch in August, has successfully attracted more than 1,500 visits, presumably by new students, by the end of September, 2020. Our poster aims to share how the platform was promoted among incoming students and envision how else it can be further promoted to its intended audience. The visit figures of the Tips for Successful Online Learning platform will also be compared to other promotion means such as the video format of a similar nature, i.e. orientation.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

# Crowdsourcing for e-Learning Anatomy:
## Peer-Led Video Courseware By Students For Students

*Christopher Yew Hong SEE, Vincent Chi Kwan CHEUNG, Wai Kai WONG, Jada Chia Di LEE, Hector Sun On CHAN*
School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

### 1. Introduction

In the COVID-era, anatomy learning in CUHK combined face-to-face dissection laboratory teaching with remote learning. One way to support remote learning is by creating video-based courseware, which is often developed solely by teachers drawing upon their own expertise and experience.

However, there is increasing evidence that peer-led teaching approaches can be effective for higher education [1]. Student-created or co-created materials are closer to their cognitive level and zone of proximal development, and language use may be more culturally congruent between peers [2].


Crowdsourcing is a distributed process of enlisting a large number of people to undertake a task to achieve a cumulative result. It has been used successfully in various scholarly settings, including a local example to develop culturally appropriate online materials for sex education amongst Hong Kong youths [3].

### 2. Methods

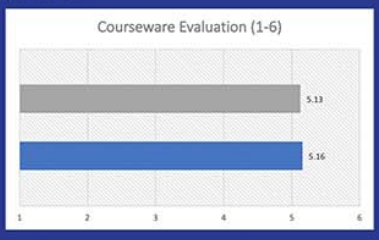
- Our project adopted a pedagogical approach of creating videos of **short meaningful teaching moments** centred around student-based anatomy dissections.
- Medical students in year 3 dissect human cadavers under supervision from teachers in small groups of 8-10.
- Two **videographers** were stationed in the laboratory with high quality recording equipment and microphones during each session.
- When an opportunity presented, students volunteered to make a short recording - presenting a key finding, interesting pathology or controversial point.
- Students created **explanations and elaborations for their peers on video**.
- This approach of crowdsourcing created a video-based courseware by **students for students**.
- **Quality control** was undertaken by course teachers and amendments or corrections were made where necessary.
- The finalised micro-videos were edited together to create a unified courseware resource to support online learning for students.



### 3. Results

During the academic year of 2021, students participated in the project during 14 two-hour dissection sessions. They generated **76 video clips**, which were screened and quality controlled by course teachers before producing a total of 24 minutes of courseware, with a section for each of the seven major subject areas.

In student evaluation of the courseware, they rated it highly *in enhancing their understanding of the course* **(5.13 / 6)** and as *highly appropriate for the course* **(5.16 / 6)** in a survey with 127 respondents.




Qualitative feedback gathered via free-text comment boxes of our survey was also very positive. Comments included students describing videos as **facilitating their learning of the course concepts**, and their **desire for further videos** in the future.

### 4. Discussion & Conclusion

- **Potential advantages**

Our adopted practice enhances student learning at two junctures; Firstly **at the point of video production**, where students engage in peer-teaching in front of the camera. This is a challenging, skill-building experience which is often outside of their comfort zone.

Secondly, when viewing the courseware they **benefit from peer-led teaching and explanations,** to complement the teacher-led instruction which they may have received in the laboratory. Additionally, a range of different human cadavers with various pathologies can be seen across the courseware.

- **Lessons learned**

Crowdsourcing certainly **does not lessen the burden** on teachers for courseware production. The time required to watch, select, amend and edit videos is vast, and it would be easier to directly create expert-driven material. However, we felt that the value created for the students and giving them a sense of ownership was worthwhile. Indeed **as teachers we can also learn** from our students' brilliant insights and explanations.

- **Conclusion**

In higher education settings there are often are multiple approaches to reach a result; several ways to code software, to identify a nerve or to experimentally prove correlation. Crowdsourcing allows development of courseware which reflects this broad range of different approaches, **rather than placing epistemological value on the single expert opinion**.

This underlying principle of our project helped align it with the University goals of cultivating **lifelong learners and effective communicators** of the future, and is readily replicable in other teaching settings. We encourage our colleagues to consider using it!

CU Medicine HONG KONG
香港中文大學醫學院
Faculty of Medicine
The Chinese University of Hong Kong

This work is kindly supported by a Micromodule and Courseware Development Grant from the Chinese University of Hong Kong

References:
1. Ten Cate O, Durning S. 2007. Peer teaching in medical education: twelve reasons to move from theory to practice. Med Teach. 29(6): 591-599.
2. Tong A, See C. Informal and Formal Peer Teaching in the Medical School Ecosystem: Perspectives From a Student-Teacher Team. JMIR Med Educ 2020;6(2):e21869
3. Wong, WCW, Song, L., See, C, Lau, STH., Sun, WH., Choi, KWY & Tucker, J. (2020). Description of the development of a crowdsourced, peer-led intervention for safer dating app use. JMIR Formative Research.

# P30: Crowdsourcing for e-Learning Anatomy: Peer-Led Video Courseware by Students for Students

**Presented by**
Dr Christopher Yew Hong SEE, School of Biomedical Sciences, The Chinese University of Hong Kong
Prof CHEUNG, Chi Kwan Vincent, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Wai Kai WONG, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Chia Di Jada LEE, School of Biomedical Sciences, The Chinese University of Hong Kong
Prof Sun On Hector CHAN, School of Biomedical Sciences, The Chinese University of Hong Kong

**Abstract**
In the COVID-era, anatomy learning in CUHK combined face-to-face dissection laboratory teaching with remote learning. One way to enhance remote learning is by video-based courseware, which is often developed solely by teachers drawing upon their own expertise and experience. However, there is increasing evidence that peer-led teaching approaches can be effective for higher education. Student-created or co-created materials are closer to their cognitive level and zone of proximal development, and language use may be more culturally congruent between peers. Our project adopted a pedagogical approach of creating videos of short meaningful teaching moments centred around student-based anatomy dissections. Students demonstrated key anatomical features in class, and together with tutors, co-created explanations and elaborations for their peers on video. This approach of crowdsourcing created a video-based courseware by students for students. During the academic year of 2021, students participated in the project during 14 two-hour dissection sessions. They generated 76 video clips, which were screened and quality controlled by course teachers before producing a total of 24 minutes of courseware, with a section for each of the seven major subject areas. In student evaluation of the courseware, they rated it highly in enhancing their understanding of the course (5.13 / 6) and as highly appropriate for the course (5.16 / 6) in a survey with 127 respondents. Qualitative feedback included students describing videos as facilitating their learning of the course concepts, and their desire for further videos in the future. Overall, the project was successful in engaging students as peer-teachers in the learning of anatomy.

**Video Stream**
Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Student-oriented Teaching and Learning

# A New Hybrid Mode for the Research Poster Exhibition for Postgraduate Students

Ms. Bernice Chan [1] Dr. Stephan Hyeonjun Stiller [2] Dr. Yvonne Loong [2] Ms. Lily Ko [1]
[1] CUHK Library [2] Independent Learning Centre

## Research Poster Exhibition

An annual event since 2016, jointly organized by the CUHK Library, the Graduate School, and the Independent Learning Centre

## Why?

- To provide postgraduate students with the opportunity to enhance their poster presentation skills
- To let postgraduate students present their own research to the broader university community

## When and Where?

**Oral Presentations and Award Ceremony**
**18 May 2021, 14:30 - 17:30, University Library**

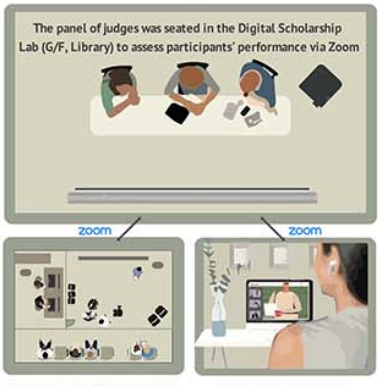
- Participants presented their posters to compete for the Best Poster Presentation Awards
- Time: 5 mins (3 mins presentation + 2 mins Q&A)
- Presentations were filmed and broadcast live via Zoom to the panel of judges and any interested attendees

**Poster Exhibition**
**18 May - 30 Jun 2021, University Library**

- To allow other postgraduate students more time to view (and learn from) the posters

## How?

A hybrid mode was adopted in showcasing the 21 posters

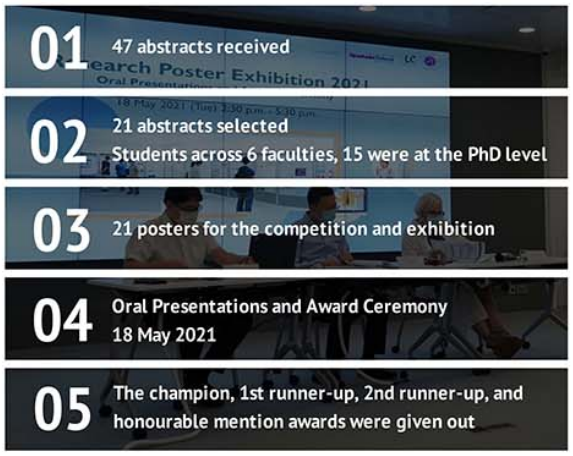



17 on-site participants were filmed using an interactive monitor in the Creative Media Studio (UG/F, Library)

4 remote participants Zoomed from home




## The Selection Process






## Evaluation

**Difficulties solved**

- Microphone delay
- Accommodation of remote presenters

**What worked?**

- Overall high standard of the presentations
- Participants were generally satisfied with the logistics (e.g. guidelines, deadlines, venue, prizes)

**What didn't work?**

- Some students would prefer longer presentation times
- Winning entries were not balanced across faculties (should faculties be separated into groups?)
- The resolution of posters via Zoom was not good for on-site presenters (but high for remote presenters)

**Additional goals for future exhibitions**

- Have participants from all 8 faculties
- Give students more time to get to know each other's research
- Give students individual feedback from the judges

**We might use a hybrid mode again next year.**
**The advantages are:**

- Overseas students can participate
- We can reach a wider audience

# P31: A New Hybrid Mode of Research Poster Exhibition for Postgraduate Students

**Presented by**
Ms Bernice CHAN, CUHK Library, The Chinese University of Hong Kong
Dr Yvonne LOONG, The Independent Learning Centre, The Chinese University of Hong Kong
Dr Stephan STILLER, The Independent Learning Centre, The Chinese University of Hong Kong

**Abstract**
The Research Poster Exhibition (RPE) was first co-organized by the CUHK Library, the Graduate School, and the Independent Learning Centre (ILC) five years ago and now is an annual event. The RPE not only aims at providing participants with the opportunity to enhance their poster presentation skills, but also intends to facilitate learning and communication among the members of the CUHK postgraduate community. Adjusting ourselves to the 'new normal', the RPE this year on 18 May, 2021 adopted a hybrid mode, the first in its history, in showcasing a total of 21 posters submitted by students across 6 faculties, of whom 15 were at PhD level. All participants, except for four overseas participants, presented their research to the audience and the panel of judges via Zoom from the Library's Creative Media Studio (UG/F) in 5 minutes (including Q & A time) to compete for 3 best poster presentation awards. The judges were seated in the Library's Digital Scholarship Lab (G/F), with the participants' digital posters displayed on an interactive monitor in the Studio via Zoom. Despite the lack of face-to-face interactions with the participants and audience, all judges were impressed by the overall high standard of the presentations and the participants' ability in adjusting themselves to the new hybrid mode in this year's RPE. Participants' feedback was both positive and encouraging as well. To allow other postgraduate students more time to view (and learn from) the RPE posters, all 21 of the posters will be displayed in the Library until the end of June, 2021.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

# Engaging students with the United Nations' Sustainable Development Goals(SDGs) on the local oyster farming industry

LAM To Kam Cherry and LUI Wing Sing
Lecturer, OUGE, CUHK

Project supported by Teaching Development and Language Enhancement Grant (TDLEG) 2019-2022, CUHK
Office of University General Education, CUHK

## Understand the visions and challenges of the United Nations' Sustainable Development Goals (SDGs)

### Hong Kong

- A coastal city in Southern China
- Once relied on marine natural resources

Deep Bay is located near the mouth of the Pearl River Delta, which is the largest intertidal mudflat in Hong Kong.

Since the 1980s, this traditional industry has been, however, heavily impacted by pollution, climate changes, soaring labor costs, and imported oysters in the city.

***Crassostrea hongkongensis*** 香港巨牡蠣

## An experiential-learning scheme for the General Education Foundation Programme related to SDGs

The United Nations' Sustainable Development Goals (SDGs)

- Guided field trip
- Hands-on conservation experience

- Understand the difficulties faced by the oyster farmers in Hong Kong
- Sustainable aquaculture
- The visions and challenges of the SDGs

**Global citizenship**

**Project team** (in no particular order):

CHAN Eugene
CHENG Wai Pang, Damian
CHIU Chu Lee, Julie
HOI Wan Heng, Sandy
LAM To Kam, Cherry
LI Ming, Kenneth
LUI Wing Sing
WONG Wing Yu, Esther

**Acknowledgement:**

The Nature Conservancy Hong Kong
Chan Kwok Leung

## P32: Engaging Students with the United Nations' Sustainable Development Goals (SDGs) on the Local Oyster Farming Industry

**Presented by**
Dr To Kam LAM, General Education Foundation Programme, The Chinese University of Hong Kong
Dr Wing Sing LUI, General Education Foundation Programme, The Chinese University of Hong Kong

**Abstract**
The United Nations' Sustainable Development Goals (SDGs) offer a vision and direction for our future, in which conservation and proper management of natural resources are highlighted. Among the 17 SDGs, life below water (SDG 14) is about the conservation of the oceans, seas and marine resources, which the oceanic and coastal ecosystems also link to life on land (SDG 15). Hong Kong, a coastal city in Southern China, once relied on marine natural resources too. For example, oyster farming is one of the famous industries once prosperous in Lau Fau Shan. Since the 1980s, this traditional industry has been, however, heavily impacted by pollution, climate changes, soaring labor costs, and imported oysters in the city. It is thus considered a sunset industry as many other agricultural and aquacultural sectors in Hong Kong. Supported by the TDLE grant, the local oyster farming industry is used as a case in point as part of an experiential-learning scheme for the General Education Foundation (GEF) Programme related to SDGs. Through the understanding of the challenges faced by oyster farming, students are also prompted to learn about SDG 8, decent work and economic growth, and SDG 11, sustainable cities and communities. They may also reflect on their consumption habits (SDG 12). Moreover, students are introduced to various scientific and technological solutions to save the industry (SDG 9). After all, solving the pollution in the coastal areas could contribute to life below water (SDG 14), clean water and sanitation (SDG 6), and our well-being (SDG 3).

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

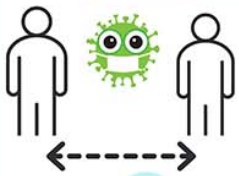
**Areas of Interest**
Curriculum/Course Design

# Customized videos

## A Feasible Alternative to In-Person Viewing of Human Anatomy Specimens

CU Medicine HONG KONG

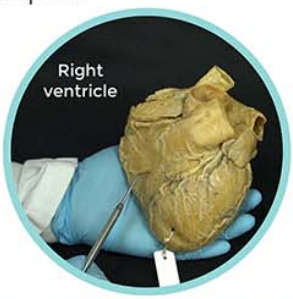
香港中文大學 生物醫學學院 CUSBS



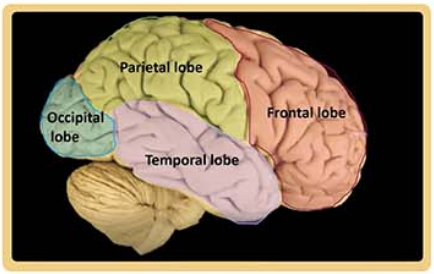
Traditional onsite examination of human specimens has been considered the most effective way of learning human structures. However, it was been banned in the first term of 2020-21 academic year due to COVID-19 pandemic. As a result, an online interactive mode of teaching and learning with customized videos followed by teacher-led activities was adopted.

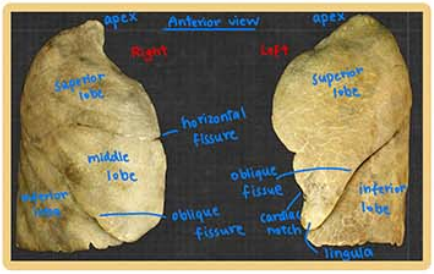
### Customized videos

- each video showcased representative human specimens of an anatomical system
- labels and narration were provided in the video







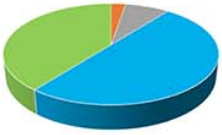

### Interactive activities

- Zoom functions (annotation, stamping, polling)
- Ureply Q&A

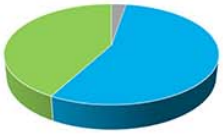
### Student feedback

strongly agree agree neutral disagree strongly disagree

"The mode(s) of teaching meet(s) my expectation of learning in "anatomy" practical."

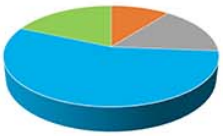


I have a better understanding of the topics after this online practical teaching.

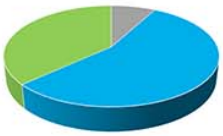


There is enough interaction between teachers and students.

There is enough interaction between peers.



I enjoy this online practical teaching.



This online learning mode can be fully adopted for anatomy practical even after face-to-face teaching is resumed.

Increased participation of students as we are more willing to type/stamp/annotate our answers. We feel easier to voice out our questions during the practical.

I can't really feel the 3D structure of the specimen which might confuse me by its different views.

Annotation function on Zoom accommodates everyone's input and can help memory by drawing on specimen images

Cannot meet my peers in person

We don't have to gather around a table, so there is a clearer view.

If the students aren't proactive enough then they might not be able to speak throughout the whole session.

It gave me more courage to try to answer the questions, because it was not too embarrassing via online even if I was wrong

### Assessment on practical content


### Presenters

Dr. LAM Shi Ying Joyce
School of Biomedical Sciences

Dr. WAI Sen Mun Maria
School of Biomedical Sciences

Dr. LAU Wing Sze Josephine
School of Biomedical Sciences

Dr. LEE Chia Di Jada
School of Biomedical Sciences

Ms. CHAN Ching Kwan Kennis
Faculty of Medicine, MBChB year 2

# P33: Customized Videos as a Feasible Alternative to In-Person Viewing of Human Anatomy Specimens

**Presented by**
Dr Joyce Shi Ying LAM, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Maria Sen Mun WAI, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Josephine Wing Sze LAU, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Jada Chia Di LEE, School of Biomedical Sciences, The Chinese University of Hong Kong
Ms Kennis Ching Kwan CHAN, Faculty of Medicine (MBChB Year 2), The Chinese University of Hong Kong

**Abstract**
COVID-19 pandemic had caused the banning of all face-to-face teaching activities in the first term of 2020-21 academic year. Examination of human specimens during practical classes, which was considered the most effective way of learning human structures, was not possible for year 1 medical students. In view of this, the original onsite practical session was transformed into an online interactive mode of teaching and learning. Students were guided to learn through customized videos followed by teacher-led activities. Each video showcased representative human specimens of an anatomical system with labels and narration. Interactive activities included a combination of Zoom functions (annotation, stamping, polling, etc.) and UReply Q&A to keep students' engagement and assimilation of knowledge. Feedback from students was highly positive and encouraging. The mode of online practical teaching met their expectation of an "anatomy practical", and enhanced their understanding of the anatomical systems. The videos were explicit and detailed, and allowed all students to view the specimens clearly and in the same manner that otherwise may not be achievable in onsite sessions. Students also expressed that they enjoyed this approach where they could have more interaction with peers and contribute to discussions in class. Though limitations such as the lack of 3D visualization of specimens existed, this mode of teaching serves as a feasible solution to teaching and learning human anatomy online.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

# Peer-led online surgery micro-module for medical students

CHEUNG, Cheuk Sin Bernice [1], LOUIE, Janine Ming-rui [1], Prof. Kaori Futaba [2]

1. Medical Students, 2. Department of Surgery, Faculty of Medicine, The Chinese University of Hong Kong

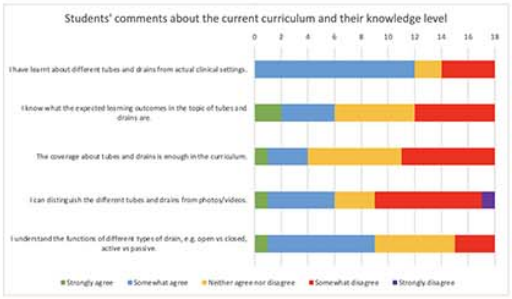
## Introduction

Online recorded and live lectures have become the new normal for medical students under the COVID-19 epidemic. The medical profession has been built upon the transmission of knowledge from more senior doctors to less experienced trainees and medical students, but the opportunity to teach as a medical student is rare. However, there is a growing evidence that peer-led teaching is beneficial for both the tutors and the learners. In view of this, a group of Year 5 medical students have developed an online micro-module targeted for Year 4 medical students, who have just started the surgical clerkship.

## Topic: Tubes and drains

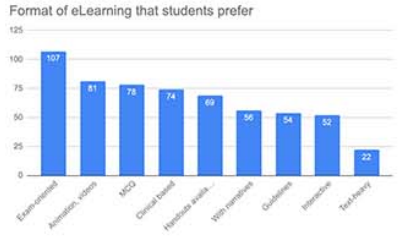
This topic is selected for multiple reasons:

- Tubes and drains are frequently encountered in surgical wards. Relevant knowledge are essential both clinically and in examinations
- Insufficient coverage in current curriculum especially with limited clinical exposure under COVID-19 pandemic.
- Low level of confidence among students regarding their level of understanding about the topic.



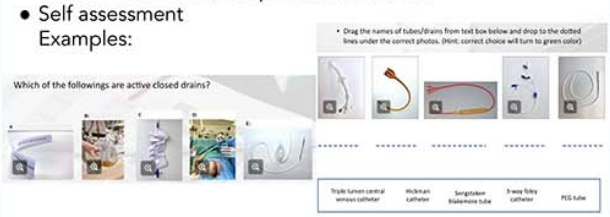

## Features & Format

The format was selected based on the previous questionnaire results regarding eLearning wishlist from medical students.




- Exam-oriented (Tubes and drains are examined every year)
- Use of multi-media, i.e. photos and videos
- Self assessment

Examples:




- ❖ Multiple-choice questions regarding: identification of correct types of drains, functions of drains.
- ❖ Extended-matching questions with pictures of similar-looking tubes and drains placed together for easy comparison and differentiation
- ❖ Feedback with explanations are given to students after each attempt of question.

- Clinical based: incorporation of clinical contexts into questions, to better understand the clinical application of the specific tubes and drains used

## Characteristics of peer-led initiative

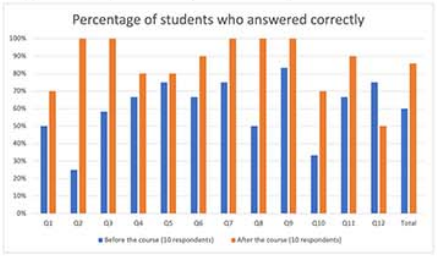
- Appropriate level due to similar knowledge base
- Understand common misconceptions among students
- Easier access to feedback

## Evaluation methods

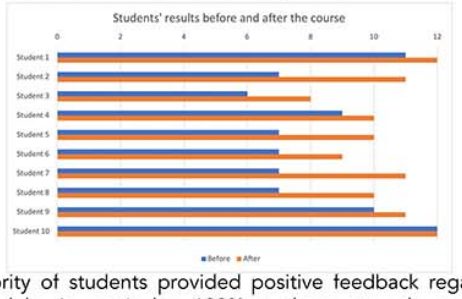
- The micro-module is scheduled to be published in July, 2021, where the new cohort Medicine Year 4 begins.
- A pre-course questionnaire and a post-course questionnaire are designed to evaluate the effectiveness of the micro-module by comparing the knowledge level before and after they complete the module. The questionnaires consist of the same set of knowledge questions for fair comparison.
- The post-course questionnaire also contains Likert-scale questions to collect users' opinions on the usefulness, user-friendliness, quality of the multi-media, etc.
- The micro-module was completed by 18 Year 6 students who were in surgical rotation as a pilot run, where they were invited to complete the course and the questionnaires.

## Results

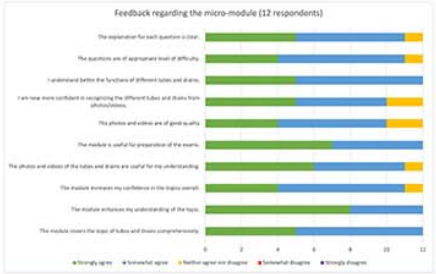
1. The students' total average score increased from 60% (7.25/12) to 86% (10.4/12) after completion of the course.




2. All students' total score increased, with the greatest improvement from 58% (7/12) to 92% (11/12).




3. Majority of students provided positive feedback regarding the module. In particular, 100% students strongly agree to somewhat agree that this module has enhanced their understanding on the topic, including the function of tubes and drains, and that the module covers the topic comprehensively.




## Summary

This peer-led interactive elearning module about tubes and drains allows flexible learning of students at their pace. Different features such as self-assessments were adopted to enhance learning efficacy. If this project is proven to be successful, similar peer-led projects could be promoted in the curriculum to aid students' learning.

# P34: Peer-led Online Surgery Micro-module for Medical Students

**Presented by**
Ms Bernice Cheuk Sin CHEUNG, Department of Surgery, Faculty of Medicine, The Chinese University of Hong Kong
Ms Louie Janine Ming-rui, Department of Surgery, Faculty of Medicine, The Chinese University of Hong Kong
Prof Kaori FUTABA, Department of Surgery, Faculty of Medicine, The Chinese University of Hong Kong

**Abstract**
Online recorded and live lectures have become the new normal for medical students under the COVID-19 epidemic. The medical profession has been built upon the transmission of knowledge from more senior doctors to less experienced trainees and medical students, but the opportunity to teach as a medical student is rare. However, there is a growing evidence that peer-led teaching is beneficial for both the tutors and the learners. In view of this, a group of Year 5 medical students have developed an online micro-module on the topic "Tubes and Drains" targeted for Year 4 medical students, who have just started the surgical clerkship. The topic is chosen because the opportunity to directly observe the tubes and drains in surgical wards is limited under the current restrictions, and more teachings on this topic is highly requested by students in previous questionnaires. The micro-module introduces the different classes and types of tubes and drains and their functions, with pictures and videos of tubes and drains included for understanding. Self-assessment questions are included throughout the module with feedback for the correct and wrong answers attempted by student users. A pre-participation questionnaire and a post-participation questionnaire are designed to evaluate the effectiveness of the micro-module by comparing the knowledge level before and after they complete the module. Compared to online recorded lectures, the micro-module: 1) is interactive 2) facilitates active learning 3) can be accessed by students at any time and for as many times, and 4)has concepts explained at an appropriate level most likely because of the similar knowledge base between the module developer and the module user (compared to the knowledge gap between medical students and doctors).

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Student-oriented Teaching and Learning

香港中文大學
The Chinese University of Hong Kong

Robotics Lab
Cable robots, Complex mechanisms and Control

# Mixed Reality in Hands-On Learning of Robotics

Xinyan Zhao (CSE), Sabrina Lam (MAE), M. Usman M. Bhutta (MAE), Darwin Lau (MAE), Jimmy Lee (CSE)

## Introduction and Motivation:

### Augmented Reality

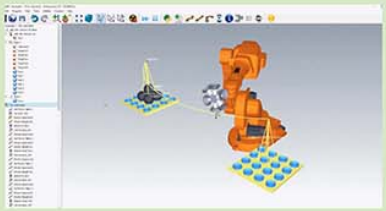
- Digital information is overlaid onto the actual physical world.
- Interactions between the virtual object with the physical world.

### Robot Experiment

Problems: Cost too much

- Human talent.
- Time.
- Space.
- Money.

### Solve Robot Experiment Problems



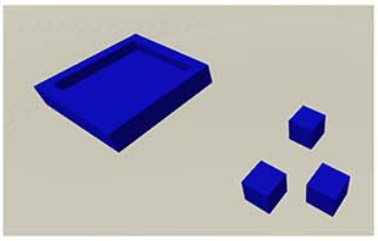
Simulation ≠ Reality

- Errors.
- Frictions.
- Power.

## AR with Robots:

### *Virtual Scenes*

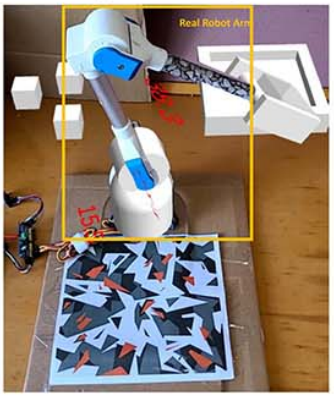
Virtual scenes that will be augmented onto the real world.



Different Objects In Specific Position

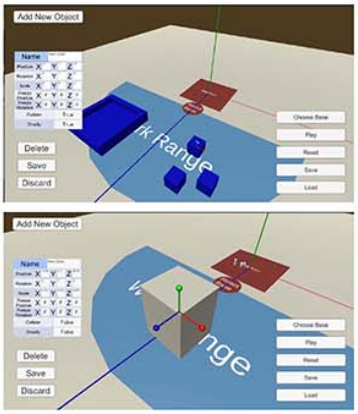
### *AR Player*

View the augmented reality scene.



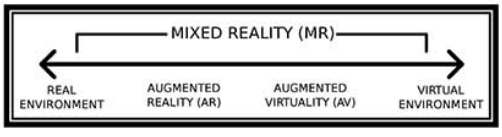

### *Scene Builder*

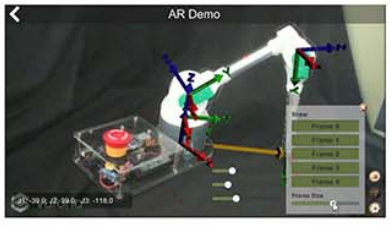
Build the augmented reality scene.



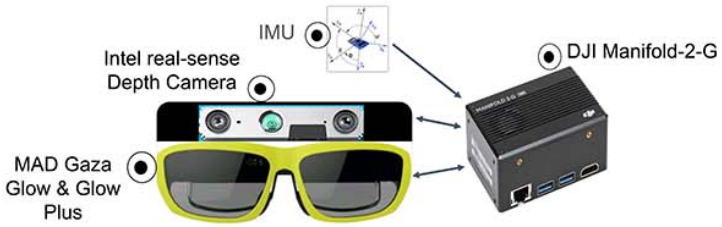

## Mixed-Reality AR+VR H/W

Our latest mixed-reality H/W setup for several on going projects such as robot-human interaction, teleoperated visits, advance and interactive mixed reality robotics labs.




**AR Utilization for robotic poses demonstration**




**Mixed-Reality H/W Setup**

# P35: Mixed Reality in Hands-On Learning of Robotics

**Presented by**
Prof Darwin LAU, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Miss Sabrina LAM, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Mr Xinyan ZHAO, Department of Computer Science and Engineering, The Chinese University of Hong Kong

**Abstract**
Hands-on learning is a crucial part of engineering teaching, such as robotics, for students to better understand the relationship between the theoretical and fundamental elements with the practical implementation. In addition to laboratories and projects, the course "MAEG3060 Introduction to Robotics" introduced hands-on lectures where students learn fundamental concepts through interacting with a robot arm. Although hands-on learning with physical systems have greater realism compared with simulations, they typically lack in allowing students to appreciate the internal workings of the system. Furthermore, when using physical robots in laboratory-based projects, additional experimental setup is typically required, such as robot grippers, painting end-tools, and objects for the robot to interact with. Such setup requires additional time and cost for the teaching staff and students. In this project, an augmented and mixed-reality software framework is developed for hands-on learning of robotics. The software consists of two components: 1) an augmentation of information to complement the hands-on exercises for in-class learning, this includes display of robot frames, internal vectors for the kinematics, workspace visualization and robot capabilities based on the Jacobian matrix; and 2) mixed reality software for students to develop different end-tools and environments to test and demonstrate the course robot arm within the course project. The mixed reality software aims enrich the students' learning experience and understanding of the course content. In comparison with existing mainstream implementation of augmented reality in teaching, this project deploys it on dynamic systems for mixed-reality.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

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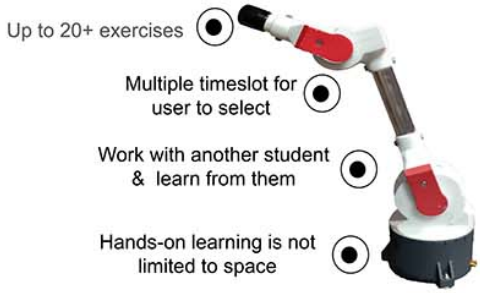
**Areas of Interest**
Tools, Platforms and EduTech

香港中文大學
The Chinese University of Hong Kong

Robotics Lab
Cable robots, Complex mechanisms and Control

# Online Robotics Laboratory Framework for Interactive and Hands-On Learning

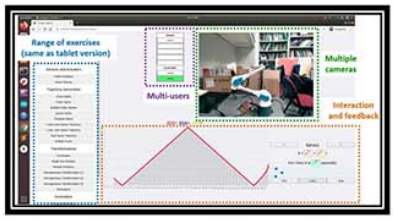
Ken Hui (CSE), M. Usman M. Bhutta (MAE), Darwin Lau (MAE), Jimmy Lee (CSE)



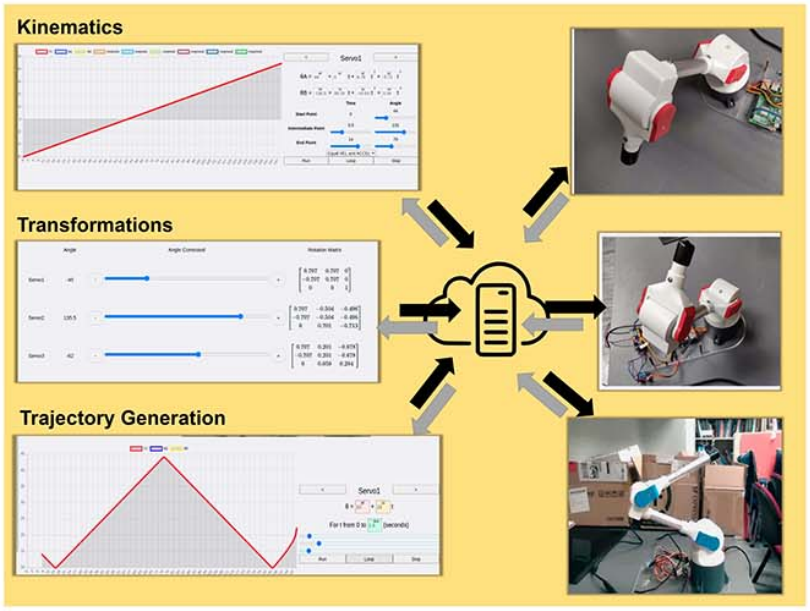

**Web-based Monitoring & Controlling System For Robotics Arm**

## Collaborative and Online Learning

**1) Book a Time Slot via online portal**




**2) Control the Arm**

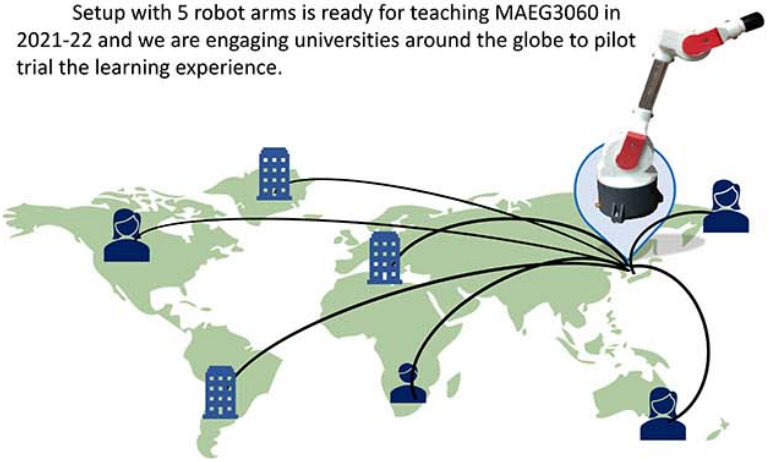



## Anytime

Learning is not limited to 3 hours laboratory per week

## Worldwide Collaborations

Setup with 5 robot arms is ready for teaching MAEG3060 in 2021-22 and we are engaging universities around the globe to pilot trial the learning experience.



# P36: Online Robotics Laboratory Framework for Interactive and Group Hands-On Learning

**Presented by**
Prof Darwin LAU, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Mr Hon Kit HUI, Department of Computer Science and Engineering, The Chinese University of Hong Kong

**Abstract**
Hands-on learning is a crucial part of engineering teaching, such as robotics, for students to better understand the relationship between the theoretical and fundamental elements with the practical implementation. In addition to laboratories and projects, the course "MAEG3060 Introduction to Robotics" introduced hands-on lectures where students learn fundamental concepts through interacting with a robot arm. However, there are several challenges in hands-on learning with physical systems. First, the interaction time with the physical system for hands-on learning is typically restricted, limiting the learning experience and ultimately the learning outcomes. Second, with the rise of COVID, students are unable to come to class and perform hands-on work. In this project, an online system is developed to allow students to perform hands-on learning of robotic arms while studying remotely. The system consists of several core components: 1) the setup of a set of robot arms as a "robot farm" with cameras for students to "see" what they are doing; 2) a website front-end extending from the already developed Android application for the physical hands-on lectures for students to perform their exercises and to observe the camera stream; 3) computer server to communicate between the website and robot arms to enable the "internet-of-things" (IoT) to control the robot; and 4) a management back-end to allow teaching staff to schedule and manage the access of students with the robot. This project aims to allow students to interact with the robot arm in groups to perform hands-on exercises at a convenient location to extend student learning time and experience. It is expected that this approach can be adopted for other courses both within and outside of engineering.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

An Innovative Approach:

# The Lab Skill-based Assessment for Enhancing Professional Competency

**Member**

*School of Biomedical Sciences, CUHK*
Florence Mei Kuen Tang, Ann Sin Nga Lau, Nandita Mullapudi, Hei Ching Cheung, Sui Ki Chiu, Tiffany Chi Lam Yu, Wong Hin Kwan

*Centre for Bioethic, CUHK*
Olivia Miu Yung Ngan

*Information Technology and Service Center, CUHK*
Ray Mau Fung Lee

florencetang@cuhk.edu.hk

## Biomedical Research Techniques

Biomedical Research is a discipline that is widely recognized for its importance in community engagement, which involves the study and application of new treatments from bench to bedside for the cure of human illness.

Concerning the training programme in the research study, the broad-based knowledge in biomedical sciences, laboratory safety, animal handling, the research techniques and operation of scientific instruments must be included.

## Objective

The Biomedical Sciences Programme offers theoretical and hands-on training to foster the next generation of biomedical scientists devoted to academic research and innovative initiatives in the industry.

We aim to investigate if students receive laboratory techniques with the essential skills to handle experiments; and handle tasks independently along with improved confidence, increased competency and accuracy of work.

## Methods

In 2020-21, our team has revamped a skill-based training course which aims to broaden students' understanding of operating different experiment steps and their ability to repeat the steps with improved accuracy and precision.

We had modified the learning activities and incorporated instructional task-based activity and assessment. Students were required to complete an instructional task by making use of the skills learnt in the lab sessions, Student could redo and practice the instructional task in reserved timeslots known as self-skill practicing session (SSP).

The skill assessment, namely "Lab Assessment Skill Test (LAST)", also makes use of the instructional task format.

A checklist was developed for the assessors to observe students' performance in LAST based on the "AIPACA" criteria: attitude, planning, competency, and accuracy.

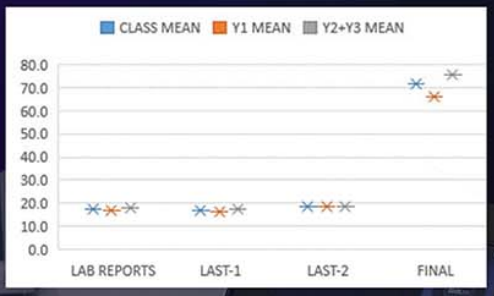
## Student Voices

| | Pros | Cons |
|---|---|---|
| Tiffany | During this process, we are getting more familiar with the procedures and understanding the significance of the steps more. | I feel like students may get nervous and rush to complete the task without double checking due to time constraints. |
| Sui Ki | SSP is a good practice before the skill test. | there should be a more detailed briefing before LAST to better prepare for it and do not waste the chance to practice. |
| Charlotte | The percentage distribution of the assessments are fair and reasonable as the practical skills are critical in this course. | Comments on each LAST could be given such that students could improve their skills in the practical afterwards. |
| Alvin | | |

## Results

There 50 students studying in Year 2 and Year 1 cohort of the academic year 2020-21 have be given hands-on training to perform and practice repeatedly the skills being taught in specially arranged practicing sessions to consolidate their confidence.

During the assessment, all students were anxious and nervous, but they still gained with good performance. Regarding to students' voices, the assessments are fair and reasonable that they can be trained to work confident and independent with critical thinking.




## Discussion and Conclusion

Based on the aggregate scores obtained by students totaling all the assessment components, we observed that the senior cohort of Y2 students outperformed the Y1 students.

When each assessment component was considered independently, the data shows that while Y2 students scored higher than Y1s in the written final exam; both Y1 and Y2 students performed comparably in the Lab Assessment of Skills Tests, possibly indicating the ability of LAST to better reflect the assessment of students' laboratory skills.

## The Way Forward

We changed the part of setting in the instructional practice test, which is essential for the diverse laboratory technique training as students can enhance their experience to cognitive understanding.

The setting of LAST is more practical to assess students' holistic abilities including attitude, competency and accuracy in handling the various skills and techniques also they can be trained how to relieve the psychological and emotional signs of high-stress levels for the future professional competence.

## Acknowledgment

The funding from the Micromodule Courseware Development Grant 2019-22.
The core members and the teammates contributed the context of the courseware.
The Division of Education of SBS and ITSC provides support in the development of interactive courseware in future.

# P37: An Innovative Approach for the Lab Skill-based Assessment for Enhancing Professional Competency

**Presented by**
Dr Florence Mei Kuen TANG, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Dr Nandita MULLAPUDI, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Ms Hei Ching CHEUNG, Biomedical Science Programme, School of Biomedical Sciences, The Chinese University of Hong Kong
Ms Sui Ki CHIU, Biomedical Science Programme, School of Biomedical Sciences, The Chinese University of Hong Kong
Ms Tiffany Chi Lam YU, Biomedical Science Programme, School of Biomedical Sciences, The Chinese University of Hong Kong
Mr Wong Hin KWAN, Biomedical Science Programme, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Olivia Miu Yung NGAN, Centre of Bioethics, The Chinese University of Hong Kong
Mr Ray Mun Fung Lee, Information Technology Services Centre, The Chinese University of Hong Kong

**Abstract**
The Biomedical Sciences Programme offers theoretical and hands-on training to foster the next generation of biomedical scientists devoted to academic research and innovative initiatives in the industry. Students ought to receive laboratory techniques training which does not only equip students with the essential skills to handle experiments, but also empower their ability to handle tasks independently along with improved confidence, increased competency and accuracy of work. Written examination should not be the only assessment strategy. In 2020-21, our team has revamped a skill-based training course which aims to broaden students' understanding of operating different experiment steps and their ability to repeat the steps with improved accuracy and precision. We had modified the learning activities and incorporated instructional task-based activity and assessment. Students were required to complete an instructional task by making use of the skills learnt in the lab sessions, and they could redo and practice the instructional task in reserved timeslots known as self-skill practicing session (SSP). The skill assessment, namely "Lab Assessment Skill Test (LAST)", also makes use of the instructional task format. A checklist was developed for the assessors to observe students' performance in LAST based on the "AIPACA" criteria: attitude, planning, competency, and accuracy. We are pleased to share our experience here that the revamped course was well received by the students. Our initial data suggested that compared with the written assessment component in this course, LAST could better reflect and differentiate the skill competency of students.

**Video Stream**
Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

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**Areas of Interest**
Curriculum/Course Design

# ENHANCEMENT DISSECTION WORKSHOP:

## Student Perspectives for the Studio-based Learning

Florence Mei Kuen Tang, Josephine Wing Sze Lau
Kevin Lok Tin Ho, Noxx Tsz Long Lam, Ivan Long Yung

Faculty of Medicine, The Chinese University of Hong Kong

## Abstract

This workshop aims to facilitate students' capabilities in recalling information to evaluate their works, creating critical judgment to cut in a proper position and approaching peer discussion to deepen and consolidate the understanding. Twenty-four students joined the workshop with enthusiasm to be good surgeons. They agreed they can learn by doing under the autonomous environment as they explore the dissection according to their planning, which can hardly be accommodated in regular dissection class. Apart from the teacher support, they can always have peer interaction to fall back on their groupmates and make a collective decision.

The students are provided with the opportunity to develop the higher-order of critical thinking. According to Bloom's taxonomy, the studio setting based in the dissection workshopis very stimulating and has worked out very well for students' affective, psychomotor,and cognitive learning. To conclude, the participants are well-equipped in the anatomy to clinical training.

## Objectives

Facilitae Students' Capabilities in:

- Recalling information to evaluate their works
- Creating critical judgment to cut in a proper position
- Approaching peer discussion to deepen and consolidate the understanding.

## Methogology

In this study our team adopted the 'studio-based learning' pedagogical model to arrange the 4-week enhancement dissection workshop for the 24 medical year 2 students last summer.

They were trained the techniques in the dissection for the preparation of prosections. They were assigned a task to perform and complete.

## Results

Apart from the teacher support, they can always have peer interaction to fall back on their groupmates and make a collective decision.

They agreed they can learn by doing under the autonomous environment as they explore the dissection according to their planning, which can hardly be accommodated in regular dissection class.

## Students' Feedback

*"We have worked out a different specimen even having the same body part because we have been given this freedom to explore and solve problems on our own creatively."*

*Kevin*

*"The luxury of time offered in the workshop also make me ponder on my professional competencies and empathy. "*

*Ivan*

*"The dissection enhancement skill workshop is a precious learning opportunity for students aspiring to become a surgeon. "*

*Noxx*

## Summary

According to Bloom's taxonomy, the studio setting based in the dissection workshop is very stimulating and has worked out very well for students' affective, psychomotor, and cognitive learning.

- Engaging students actively & reflectively;
- Providing hands-on experience;
- Applying in linkage with knowledge;
- Emphasizing in clinical symptoms;
- Learning skills cognitively; and
- Making confident to be a good surgeon in future.

## Future Plans

We can further explore the studio-based learning if it can:

- Reinforce their logistic and cognitive connections in anatomy knowledge through skilled practice and hands-on experience; and
- Deepen the clinical skill with personalized problem solving approach in the sophistication of professional knowledge

## ACKNOWLEDGEMENT

The School of Biomedical Sciences entirely supported the development of the project.
Mr Taylor Tang, the colleague of ITSC who helped in the design of the poster and template of powerpoint.
All of the students who have participated in the summer enhancement of dissection workshop.

# P38: Enhancement Dissection Workshop: Student Perspectives for the Studio-based Learning

**Presented by**
Dr Florence Mei Kuen TANG, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Dr Josephine LAU, School of Biomedical Sciences, Faculty of Medicine, The Chinese University of Hong Kong
Mr Kevin Lok Tin HO, MBChB, Faculty of Medicine, The Chinese University of Hong Kong
Mr Noxx Tsz Long LAM, MBChB, Faculty of Medicine, The Chinese University of Hong Kong
Mr Ivan Long YUNG, MBChB, Faculty of Medicine, The Chinese University of Hong Kong

**Abstract**
Anatomy is one of the core knowledge acquired in the preclinical training for developing the professional competence of medical students, especially for the clinical surgeons. Due to the tight teaching schedule, students only have restricted time for the cadaver-based instruction practice. As students often considered Anatomy is a boring subject, apparently the best pedagogical strategy is to design an active learning environment for learning by doing independently. In this study our team adopted the 'studio-based learning' pedagogical model to arrange the 4-week enhancement dissection workshop for the medical year 2 students last summer. The aims of this workshop are to facilitate the capabilities of students in recalling information to evaluate their works, creating critical judgment to cut in a right position and approaching peer discussion to deepen and consolidate the understanding. Twenty-four students joined the workshop with enthusiasm to be good surgeons. They agreed they can learn by doing under the autonomous environment as they explore the dissection according to their own planning, which can hardly be accommodated in regular dissection class. Apart from the teacher support, they can always have peer interaction to fall back on their groupmates and make collective decision. The students are provided opportunity to develop the higher order of critical thinking. According to Bloom's taxonomy, the setting of studio based in the dissection workshop is very stimulating and has worked out very well for student's affective, psychomotor and cognitive learning. To conclude, the participants are well-equipped in the anatomy to clinical training.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

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**Areas of Interest**
Student-oriented Teaching and Learning

# CSL Tutorial System (Putonghua)

Principal supervisor: Dr. WONG Ho Put
Co-principal supervisor: Ms. LIU Zhenxia
Frontline TAs: Mr. Bill Lin WU & Ms. WEI Danli
Yale-China Chinese Language Centre, The Chinese University of Hong Kong

## Introduction

- Predecessor project: "CSL Initiatives: Needs Analysis and Tutorial System" (Dr. LEE Siu Lun & Ms. LIU Zhenxia, 2018-19, TDLEG)
- Project duration and funding: 1 Jan 2020 – 30 Apr 2022, Teaching Development and Language Enhancement Grant (2019-22)
- Project objectives:
  - To **maintain**, **improve**, and **expand** the tutorial system established during the pilot project;
  - To give students **more chances to practice** listening, speaking, reading, and writing **constructively** and **systematically**;
  - To **enhance students' learning experiences** through various **extracurricular activities**;
  - To provide aspiring Chinese language teachers **internship opportunities** to gain **first-hand teaching experience** during their studies at CUHK.

## Interactive Tutorials

- For listening and speaking courses: CLCP1123, CLCP1153, CLCP2223, CLCP2253
- Led by TAs and teaching interns
- **Practice** main content from lessons through semi-authentic **Q&A**, **picture descriptions**, and **other activities**
- Various **listening comprehension activities** and **speaking tasks** (e.g. **drama clips**, **role-playing**, **discussion topics**, **short presentations**, etc.)
- **Supplementary vocabulary** and **content/cultural knowledge** based on **real-life situations** and **contemporary society**


## Hybrid Tutorials/Workshops

- For reading and writing courses: CLCP1113, CLCP1133, CLCP2213, CLCP2233 (expected)
- Led by TAs and teaching interns
- Introduction to the **basics of Chinese characters** (e.g. **history**, **formation**, **traditional and simplified**, etc.)
- **Practice** main content from lessons through simple **Q&A**, **picture prompts**, **reading practice** (with a focus on **traditional vs. simplified** and **radicals**), and other activities


## Alternate Arrangements

- For elementary reading and writing courses: CLCP1113 & CLCP1133
- Organized and monitored by TAs
- **Writing practice** at the character level (e.g. **strokes** and **radicals**, **traditional** and **simplified**, pinyin-to-character conversion, etc.)
- Written **grammar practice** (e.g. **Q&A**, **written form vs. spoken form**, etc.)

## Breakout Room Sessions

- For **online Zoom lectures** during COVID
- Organized by teachers and led by TAs and teaching interns
- **Immediate group practice** of the content covered in lecture

## Student Feedback

I think it is good to have TAs in the breakout rooms because we can have **more opportunities to practice.**

The Alternate Arrangements helped me familiarize myself with the **characters** and with my **reading and writing skills.**

I enjoyed answering the simple questions because it helped us **get to know our peers** as well as **practice the vocabulary.** It was **very interactive.** I also enjoyed **practicing the dialogues** and being **introduced to extra information** that was not in the textbook.

I like tutorial because we learned **more phrases** than in the book **to express our opinions and ourselves.**

The **tutorial handouts** were **very useful** because they helped me **comprehend the characters and grammar** in each lesson. I was able to **push myself to be excellent** in Putonghua after participating in this tutorial.

## P39: CSL Tutorial System (Putonghua)

**Presented by**
Dr Jonathan Ho Put WONG, Yale-China Chinese Language Centre, The Chinese University of Hong Kong

**Abstract**
This e-poster and the accompanying video will showcase the project "CSL Tutorial system (Putonghua)," funded by the Teaching Development and Language Enhancement Grant (2019-22). In the 2018-19 academic year, the tutorial system was launched at Yale-China Chinese Language Centre and this project is the continuation of the first one. To be in line with University's vision which states the importance of "bilingual and multicultural" abilities and fostering internationalization within CUHK, this project aims at maintaining and substantially expanding the tutorial system for Chinese-as-a-Second-Language courses in the 2019-22 triennium. In addition to the scope of the pilot (i.e. CLCP1xx3 courses), most CLCP2xx3 courses have piloted tutorial by the end of Spring 2021. Due to COVID 19 and the adoption of Zoom teaching, the system has been adapted and expanded. There are four main arrangements for tutorial: 1) speaking tutorials based on tasks and activities for the listening and speaking courses; 2) workshops for the reading and writing courses; 3) written practice for the reading and writing courses that were born from switching to online teaching; 4) speaking or speaking & reading tutorials during online lectures in Zoom breakout rooms.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

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**Areas of Interest**
Tools, Platforms and EduTech

# The Power of Touch

## The Case of Dyslexia and Museum Education in the United Kingdom

Author: Mok Hiu Tung (Amber), MA, PGDE(history)

Email: hiutungmok1@gmail.com

Affiliation: individual/ postgraduate student of CUHK

## Introduction

In the United Kingdom, museums act as an extended classroom for primary and secondary formal teaching. This interactive and multi-sensory nature of museum education attracts teachers to use museums as a medium to connect students with history, culture, and art. This approach is also useful for students with special education needs (SEN). With quantitative and qualitative studies from adults with dyslexia, UK teachers, and UK museum practitioners, this research shows the successes in the role museums play in learning students with dyslexia. On a concluding remark, the possibilities to adopt this model in Hong Kong will be discussed.

## Museum as an extended classroom

In the UK, museums offer half to full-day, collection-based workshops that provide students with a first-hand experience to connect with history. Taking advantage of the multi-sensory atmosphere in museums and heritage sites, teachers could utilise museums as an extended classroom.

- Schools pay a fee to attend these themed, collection workshops carried out by museum educators with curriculum links to the history curriculum
- More common for primary schools to attend than secondary (university students sometimes participate as interns to assist the workshops)
- Examples of Intervention methods
  - Object handling
  - Arts and craft
  - Gallery Trail
  - Games
  - Gallery tour

Terracotta warriors made with air-dry clay in the China-themed workshop. Taken by author in 2018.

**Case study: China-themed Workshop in Oriental Museum, Durham**

- Curriculum linkage: History Key Stage 2 (7-11 years old) - Ancient Civilisations
- Workshops can be in form of in-museum, outreach and online

| | |
|---|---|
| 10:00 | Arrival at the museum |
| 10:15 | Introduction and Zodiac Story (role-play) and gallery trail/explore |
| 11:15 | Object handling and symbolism game |
| 12:00 | Lunch |
| 12:45 | Craft: Shadow puppet or Making Terracotta Warrior with air-dry clay |
| 13:30 | Dragon Dancing in the Galleries |
| 14:15 | Departure from the museum |

data acquired from staff at the museum in June, 2021

## What can Hong Kong learn?

**What schools should consider**

- Examine their perception of what roles they consider museums play in teaching: Is museum visit just an extra-curricular or post-exam activity?
- How museums can act as an inclusive classroom

**What museums should consider**

- Possibility of having a handling collection and workshop
- Changing structure and format of museum education
- What museum education should be
- Can technology help?
  - Possibility of using 3D scanning of objects and Augmented Reality Apps to engage students with artefacts

Is gallery tour still an effective way in museum education?

***Innovation is to create, but it is also to examine what we already have in a new light. It is high time that museums and schools in Hong Kong considered what we could do to engage students. If we could harness the power of touch, there is endless potential in the effectiveness of museum education to create an inclusive classroom.***

## Effects of museum education on students with dyslexia in the United Kingdom

**Methodology**

- 2 Surveys: adults with dyslexia to recount their experiences of using museums as a student; teachers who brought their students with dyslexia on a field trip to museums
- 2 interviews: Durham University Library and Collections (DULC) and Tyne & Wear Archives & Museums (TWAM)
- Finished in May to July 2018

**Results**

- **Perspective from adults with dyslexia**

Over a three-week period in June and July 2018, the survey was posted on 8 Facebook groups about dyslexia twice each, with 26 responses recorded in total.

*57.9% of respondents rated 4 or 5 out of 5 for how museum education helped with their learning.*

***Object handling*** was deemed the most effective activity in museum workshops


***Top 2 reasons*** why respondents looked forward to museum fieldtrips


Although museums are expectedly unable to help with reading skills, respondents deemed it effective for boosting learning motivation and help reinforce knowledge.

- **Perspective from UK teachers**

A total of 67 schools were chosen from 87 schools listed in the register of "The Council for the Registration of Schools Teaching Dyslexic Pupils", with 9 responses from teachers recorded. Their students were around 11-14 years old.

57.1% of respondents observed ***more active behaviour*** in students with dyslexia during ***object handling*** than in normal classrooms

**Top 3 reasons why museums benefit students with dyslexia**

Better learning environment, Enhanced learning confidence, Highlighted students' strenghts

> *(Museum learning was a) visual learning, (and) helped (them) understand the era (by having) spatial interaction with the heritage site.*
>
> Respondent

- **Perspective from UK museum practitioners**

Two interviews were conducted with staff from DULC and TWAM in May and June 2018, which examined approaches to assisting students with dyslexia in museum workshops for schools.

**3 reasons why museums benefit students with dyslexia**

- Collaboration with teachers
- Short-term contact -> ↑ learning confidence
- Nature of museum education : Interdisciplinary & tactile

> *(an SEN student) wrote the most beautiful poem and the workshop was set up in such a way that it really supported her*

Leslie Palanker, Assistant Learning Officer, Tyne and Wear Archives and Museums (quote and image courtesy)

*All three sets of data demonstrate that museum education helps students with dyslexia students, through multi-sensory hands-on learning, boosting their learning confidence and motivation. The power of touch, in particular, is able to engage students with dyslexia.*

Note: This poster is an extension of the dissertation done at Durham University under MA International Cultural Heritage management in 2018. Permission to re-use the data was obtained by interviewees in June 2021. The author had 3 years of experience in teaching and 3 years of such in museums. Please also refer to the paper that has been submitted to this conference.

# P40: The Power of Touch - The Case of Dyslexia and Museum Education in the United Kingdom

**Presented by**
Ms Hiu Tung MOK, Postgraduate Diploma in Education Programme (Major in History), The Chinese University of Hong Kong

**Abstract**
In the United Kingdom, museums act as an extended classroom for formal teaching, especially in history. A one-day visit is often characterized by gallery trails, games, crafts, object handling, and more. The interactive and multi-sensory nature of museum education attracts teachers to use museums as a medium to connect students with history, culture, and art. In particular, object handling activities provide first-hand experiences for students of all ages to 'do history'. Such nature is also helpful for students with special education needs. Theoretically speaking, the multi-sensory element of museum education goes very well with the unique learning styles of students with dyslexia. With quantitative and qualitative studies from dyslexic adults, UK teachers, and UK museum practitioners, this research shows the successes and challenges in the role museums play in the learning of students with dyslexia. What can we, as teachers in Hong Kong, learn from the case of the United Kingdom? What are the potentials in developing Hong Kong museums to be extended classrooms, benefiting both SEN and non-SEN students? Note: This is an extension of a dissertation completed in 2018 at Durham University for the MA International Cultural Heritage Management. The data was collected in 2018; permission would be acquired from institutions to reuse it for this conference. The author has just completed her PGDE in history, has had two years of teaching experience and three years of experience working in museums in the UK and Hong Kong.

**Video Stream**
Video

**Short Paper**
Open

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Student Corner

# Approach to an Online Mock OSCE - A Student Initiative

## Introduction

Impacted by COVID-19, in-person clinical teaching activities at medical schools have been replaced by online teaching over online platforms. A significant reduction in patient contact caused Year 4 medical students at The Chinese University of Hong Kong in their first clinical year immense distress. The Objective Structured Clinical Examination (OSCE) assesses clinical competence in a structured way with uniform stations and consensus on assessment components. In response to their needs, seniors from Year 5 initiated a mock OSCE before Year 4's end-of-year examination. To the authors' knowledge, no online mock OSCE as a form of peer-assisted learning has been reported before.

**Authors**
William Xue (M.B. Ch.B., 2021)
Matthew Chan Hiu Hei (M.B. Ch.B., 2021)

**Affiliations**
This project was supported by the Office of Medical Education (OME) from the Faculty of Medicine, The Chinese University of Hong Kong

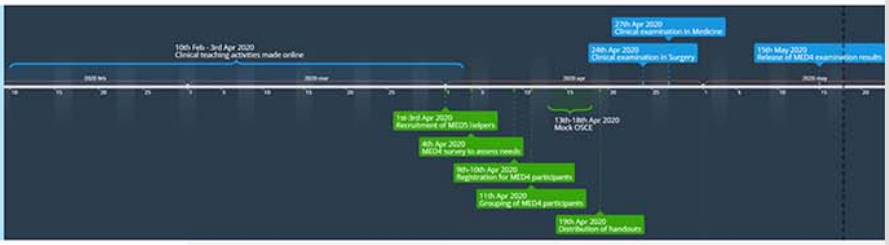
## Objectives

This project serves to exemplify how a mock OSCE involving different stations could be held over video-conferencing, a mode of peer-assisted learning applicable to health or non-health-related disciplines.
The primary endpoint is participants' perceived efficacy in:

- Improving exam performance
- Enhancing understanding of the topic
- Attitude shift towards the actual exam

The secondary endpoint is senior group leaders' perceived efficacy in:

- Enhancing their own understanding of the topic
- Teaching capabilities




## Methodology

A total of 6 standardised scenarios, surrogate scripts, viva questions, and suggested marking schemes were devised for each of the 3 blocks (medical history taking, medical communication, and surgery), yielding a total of 18. Cases were all set according to past papers as well as feedback from examiners in previous years. Additional topics were also included as a distributable reading material at the end of the mock.

Questionnaires were distributed over social media for the initial needs assessment and recruitment of participants. Participants were randomly allocated to each session to maximise their exposure to different teaching styles. Microsoft Teams was utilised as our primary video-conferencing platform. Instruction manuals were distributed to seniors on how to set up scheduled meetings with Teams.

During every session, seniors would start by answering burning questions. Then, participants would volunteer one by one to carry out the station's tasks. The leaders were given a set of six scenarios for each block, but they were given the freedom whether to fully utilize them and follow the sequence. Every participant was required to have at least one go in a timed setting while seniors acted as the examiner, timer and/or surrogate. Seniors would then provide feedback, reminders, and comments on any fatal mistakes without actually scoring.

Separate cross-sectional surveys were conducted via Google Forms post-mock and post-exam to gather feedback from participants and seniors. A five-point Likert scale was used in collecting the perceived efficacy and attitude shifts of participants, as well as the seniors' overall experience and attitudes toward the logistics. Spaces for open comments were also included. Results were exported into Excel (Microsoft 2019) for compilation. Responses were analysed descriptively in percentages and Tukey's hinges. Open comments were read individually and quoted as relevant.

## Results

The entire mock OSCE was held with 39 Year 5 students for 141 Year 4s, covering more than half (56.2%) of the entire class of 251. 15 (41%) seniors had helped in the preparation of handout materials before the mock. Conducted a total of 80 sessions on medical history taking, medical communication, and surgery at a ratio between 2:4 to 2:6 over the course of 6 days.

*Participants:*

- Overall, nearly all participants (99%) agreed or strongly agreed that the mock stations were helpful for the exam
- Most also felt more confident (77.0%) and less anxious (61.3%)
- More than half (52%) of respondents considered video-conferencing to be effective to their learning when compared to in-person clinical exposure
- The handouts received positive feedback, as 94% agreed or strongly agreed that it enhanced their understanding of the topic and helped with their exam

*Seniors:*

- 62% agreed or strongly agreed that they gained confidence in teaching after leading sessions
- 84% agreed or strongly agreed that their understanding of the topic was enhanced through leading sessions
- 41% agreed or strongly agreed that they gained confidence in their own OSCEs in the future
- 87% of those who helped to prepare handouts agreed or strongly agreed that it had enhanced their understanding of the topic or had given them confidence in teaching
- 67% agreed or strongly agreed that it was helpful in preparing for their final year studies. Overall, leaders responded positively toward participants' attitudes throughout the mock OSCE sessions
- The majority of leader respondents found that participants were enthusiastic in learning (32, 86%), paid attention (33, 89%), asked questions (31, 84%), and were well-prepared (27, 73%)

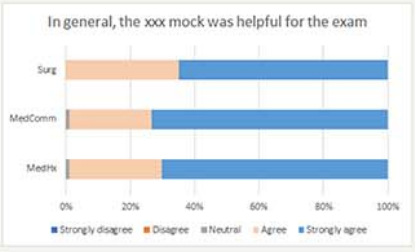
## Discussion

*Participants:*
OSCEs are set to mimic clinical scenarios with structured evaluation. Efforts were made to make the mock resemble the actual exam while participants were reassured that the purpose of the mock was to provide a framework of timed role-play practices and to provide personalised advice from seniors, rather than criticising. The mock played a key role in helping participants familiarise themselves with the exam setting, thus alleviating their anxiety over uncertainty. As reflected by the respondents' recognition of interactive/experiential learning becoming more important (98%).
While ensuring the accuracy of our materials, participants were NOT advised to take them as model answers, but rather as tips from seniors who may have had more clinical exposure. Randomisation was, hence, crucial to the participants' exposure to different styles.

*Seniors:*
Despite actively preparing for and hosting the mock, most seniors (62%) were neutral when asked whether they felt more prepared for final year's studies after leading sessions. This may be explained by the different exam formats between Year 4 and final year OSCEs. Acknowledged is also the gap between the acquisition of knowledge and exam performance due to anxiety, biases, and a multitude of uncontrollable factors in an artificial examination setting.

*Limitations:*
Due to privacy concerns, researchers were unable to obtain and analyse participants' actual year-end OSCE scores as an objective measure of the mock's efficacy. From existing literature, however, peer-assisted learning and mock OSCEs yielded overwhelming subjective satisfaction but equivocal efficacy in improving OSCE scores.

An important limitation to the interpretation of subjective outcome measures is confirmatory bias as the survey took place after the actual exam. Although efforts has been made to address this by questioning the participants' perceived enhancement of knowledge after the actual OSCE exam to be compared to that after the mock, such bias could not be completely eliminated. Another factor that may positively interfered with subjective outcome measures would be out of courtesy since this is a purely senior-initiated act.




## Conclusion

This mock OSCE was held purely out of student initiatives in recognition of the needs of peers. It serves to exemplify how a mock OSCE involving different stations could be held over video-conferencing. Its subjective efficacy was widely acknowledged by participants. The strengths of this study include a high participation and response rate to surveys, being the first to evaluate the feasibility of hosting mock OSCEs on video-conferencing platforms and senior helpers' feedback.

# P41: Approach to an Online Mock OSCE in Medical Education – A Student Initiative

**Presented by**
Dr William XUE, Medicine MBChB Programme, The Chinese University of Hong Kong
Dr Matthew Hiu Hei CHAN, Medicine MBChB Programme, The Chinese University of Hong Kong

**Abstract**
Background and purpose: Impacted by COVID-19, in-person clinical teaching activities at medical schools have been replaced by online teaching over online platforms. This resulted in significant reduction in patient contact, causing distress particularly amongst Year 4 medical students at The Chinese University of Hong Kong, who were in their first clinical year. The Objective Structured Clinical Examination (OSCE) assesses clinical competence in a structured way with uniform stations and prior consensus on assessment components. In recognition of their needs, seniors from Year 5 initiated a mock OSCE before their end-of-year examination. To the best of the authors' knowledge, no completely online mock OSCE as a form of peer-assisted learning was reported in literature. Methods: It was held with the help of 39 Year 5 students for 141 Year 4s, covering than half (56.2%) the entire class of 251. Conducted were 80 sessions on medical history taking, medical communication, and surgery at a ratio between 2:4 to 2:6 over the course of 6 days. Results: Overall, nearly all participants (99%) agreed or strongly agreed that the mock stations were helpful for the exam; most also felt more confident (77.0%) and less anxious (61.3%). More than half (52%) of respondents considered video-conferencing to be effective to their learning when compared to in-person clinical exposure. Conclusions: This report serves to exemplify how a mock OSCE involving different stations could be held over video-conferencing. Its subjective efficacy was widely acknowledged by participants but whether it could yield objective results would require further research.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Student Corner

# Peer-Assisted Learning (PAL) in Bioscience

AU Wing Ngor Shannon, SHAW Pang Chui, HUI Ho Lam Jerome, CHAN King Ming, WONG Kam Bo, LAU Kwok Fai, TSANG Suk Ying Faye, NGAI Hung Kui, KONG Siu Kai, LAU Pui Yin Queenie

*School of Life Sciences, The Chinese University of Hong Kong*

## Introduction

Effective teaching and learning is a major challenge in large class teaching. This gets more significant in foundation courses in which newly admitted students are with diverse training background. Along with the board-based undergraduate admission, bioscience courses with student enrollment reaching 100 or more are common in School of Life Sciences.

## Objective

This project aims to develop Peer-Assisted Learning (PAL) to enhance teaching and learning in 5 bioscience courses with large class size. The PAL platform involves the participation of a team of senior year life sciences students as Peer Teaching Assistants (pTAs) to lead small group tutorials. In year 2020/21, PAL suite has created an interactive peer-learning environment for 5 undergraduate courses LSCI1002, LSCI2002, BCHE2030, BCHE3070 and BCHE3650, involving a total of over 800 students.

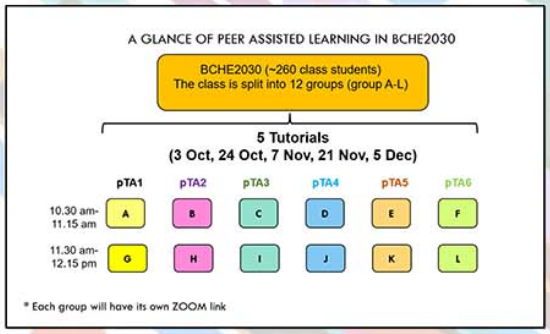
## Methodology

- Our scheme is carried out in different phases including pTAs recruitment and training, preparation of teaching materials and evaluations.
- Senior year life sciences students are recruited to build a team of Peer Teaching Assistants (pTAs). Guided training provided to pTAs who will later lead small group tutorials.

Recruitment

Training

Material Preparation

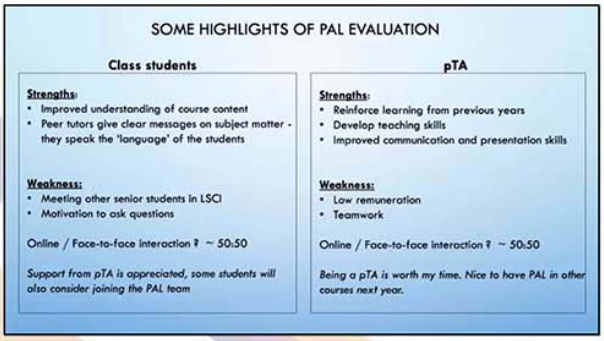



## Outcomes and Deliverables (2020-21):

- 27 pTAs were recruited by the respective course teachers
- 139 tutorial sessions were organized to facilitate small group interaction and student engagement in learning.
- Question pools from the class students were compiled into a database for the relevant course teachers to aid the course development.
- Over 800 class students were benefit from Peer Assisted Learning.

## Evaluation (2020-21):

- Feedback from pTAs and class students was collected to fine tune the operation mode and arrangement for the next exercise.




## Sharing session

- pTAs to share their teaching experience and receive appreciation from course teachers

PAL Sharing session workshop (May 21, 2021)

## What's next

Overall, PAL is well received by the class students that better understanding of the study topics can be achieved. The project will continue in the coming academic year (2021-22) and further evaluation will be gathered for our future curriculum development.

## Acknowledgement

**This project is funded by Teaching Development and Language Enhancement (TDLEG) for 2019-22 Triennium. (Ref: 4170625)**

## P42: Peer-Assisted Learning (PAL) in Bioscience

**Presented by**
Prof Shannon Wing Ngor AU, School of Life Sciences, The Chinese University of Hong Kong
Prof Pang Chui SHAW, School of Life Sciences Biochemistry Programme, The Chinese University of Hong Kong
Prof Jerome ho Lam HUI, School of Life Sciences Biology Programme, The Chinese University of Hong Kong
Prof King Ming CHAN, School of Life Sciences, The Chinese University of Hong Kong
Prof Kam Bo WONG, School of Life Sciences, The Chinese University of Hong Kong
Prof Kowk Fai LAU, School of Life Sciences, The Chinese University of Hong Kong
Prof Faye Suk Ying TSANG, School of Life Sciences, The Chinese University of Hong Kong
Dr Hung Kui NGAI, School of Life Sciences, The Chinese University of Hong Kong
Prof Siu Kai KONG, School of Life Sciences, The Chinese University of Hong Kong
Ms Queenie P.Y. LAU, School of Life Sciences, The Chinese University of Hong Kong

**Abstract**
This project aims to develop Peer-Assisted Learning (PAL) to enhance teaching and learning in 5 bioscience courses with large class size. The PAL platform involves the participation of a team of senior year life sciences students as Peer Teaching Assistants (pTAs) to lead small group tutorials. In year 2020/21, PAL suite has created an interactive peer-learning environment for 5 undergraduate courses LSCI1002, LSCI2002, BCHE2030, BCHE3070 and BCHE3650, involving a total of over 800 students. Briefing and training sessions to the 27 recruited pTAs by the respective course teachers were also arranged. Up to now, 139 tutorial sessions were organized to facilitate small group interaction and student engagement in learning. Question pools from the class students were compiled into a database for the relevant course teachers to aid the course development. Feedback from pTAs and class students was also collected to fine tune the operation mode and arrangement for the next exercise. Very recently, we also organized a sharing session, inviting the pTAs to share their teaching experience and receive appreciation from course teachers. Overall, PAL is well received by the class students that better understanding of the study topics can be achieved. The project will continue in the coming academic year and further evaluation will be gathered for our future curriculum development.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Student-oriented Teaching and Learning

# PROJECT TITLE: Resources for teachers on student emotional wellness issues

**OBJECTIVE:** Teachers who have frequent and direct contact with students are usually the first contact for help and support. This TDLEG project aims to build an online resources platform to promote teachers' awareness and understanding of issues related to students' well-being in the hope that they will be better prepared when encountering such problems and provide students relevant support.

Prof. CHUN Ka Wai, Cecelia, Centre for Learning Enhancement And Research (CLEAR)
Prof. LEE Wing Yan, Vivian, Centre for Learning Enhancement And Research (CLEAR)
Dr. LUK Sau Ha, Sarah, Department of Educational Psychology

"My student was always absent and not attentive."

"The academic result of my student has declined drastically."

"My student was withdrawn most of the time."

"My student felt very negative for more than 2 weeks."

"My student would like to chat with me personally."

## What could TEACHERS do?

Proposed general coping strategies collected from teacher interviews

| Communicate | Understand | Listen | Encourage Help-seeking |
|---|---|---|---|
| 願意溝通 | 願意了解 | 願意聆聽 | 尋求協助 |
| Welcome or initiate a chat with students | Figure out reasons for students' emotions and behaviours | Empathize and acknowledge how they feel, reflect what have been heard | Encourage students to seek help from trusted people and professionals |

## VIDEO-BASED CASES

Simulated cases were filmed as videos on four common emotional wellness issues, illustrating signs to identify these issues and proposing some coping strategies.
Examples of the key symptoms are stated as follow.

**Perfectionism**

A student had unrealistic expectations on himself/herself.

He/she may impose many rules or "should" on self.

**Anxiety**

A student was worried for more than 6 months.

He/she generalized the worries to different aspects of life.

**Academic Stress**

A stressful student showed some negative physical, emotional and cognitive symptoms.

**Depression**

Depressive student felt helpless and hopeless, lasting for at least 2 weeks.

### IN PROGRESS

**Debriefing and illustration –** Teachers with expertise in counselling will be invited to debrief the videos, giving more illustrations for the four simulated cases.

**Video to tackle risky cases –** A teacher with expertise and training in suicidal prevention will answer the FAQs from teachers who encountered students with suicidal issues.

### OUR EXPERIENCE

We deeply experienced the close tie between teachers and student helpers throughout the project, who come together with common interest in emotional health. The interactive and mutual teacher-student relationship can act as a protector to students with emotional wellness issues.

### YOUR SUGGESTIONS & COMMENTS

The platform will be launched in KEEP in October 2021. If you are interested in this project and would like to give us comments, please feel free to let us know.

**Acknowledgement:**
The Teaching Development and Language Enhancement Grant (2019-22)
The Chinese University of Hong Kong

Contact: Miss Irene LEUNG
Email: irenelys@cuhk.edu.hk
Phone: 3943-3531

## P43: Resources for Teachers on Student Emotional Wellness Issues

**Presented by**
Ms Irene Yuet Shan LEUNG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Prof Cecilia Ka Wai CHUN, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Prof Vivian Wing Yan LEE, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Dr Sarah Sau Ha LUK, Department of Educational Psychology, The Chinese University of Hong Kong

**Abstract**
Teachers who have frequent and direct contact with students are usually the first contact for help and support. This TDLEG project aims to build an online resources platform to promote teachers' awareness and understanding of issues related to students' well-being in the hope that they will be better prepared when encountering such problems and provide students relevant support. The platform comprises mainly video-based cases. Simulated cases were filmed as videos on four common emotional wellness issues (perfectionism, anxiety, academic stress and depression) which have been identified from the interviews of teachers from six faculties at CUHK. The videos illustrate signs to identify these issues and propose some coping strategies. Teachers with expertise in counselling are invited to debrief these cases or offer more suggestions. The platform also houses a video on answers to some frequently asked questions from teachers in handling of suicidal cases. The platform will be launched in KEEP in October 2021.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Central Unit Platforms and Services

# Development of a quality assurance mechanism for micro-module production

**Presenter: Mr. Eric Yeung** Co-presenters: Prof. Paul Lam, Ms. Carmen Lau

## Why did we develop a QA mechanism for MM production?

Video-based learning resources, in the form of micro-modules (MM) are increasingly used in various courses, but there was no existing evaluation mechanism to ensure the overall quality and effectiveness of MM. Hence, the project aims to set up a comprehensive university-wide mechanism to assure and enhance the quality of MM. In the mechanism, teachers developing MM may benefit from the external feedback and advice at various stages of their development.

## How did we develop the evaluation mechanism for MM?

Since there was no specific evaluation mechanism for MM, we first conducted a literature review on existing e-Learning frameworks and extracted relevant evaluation items. After consultation of the project steering committee carried out in 2020, we further added items that were deemed important for effective delivery of MM. A comprehensive rubric with three key components and twenty-two sub-categories was then created for the review process. We also developed three review panels comprising internal and external members and invited them to use the rubric to evaluate the instructional design, subject content and technical issues of the MM.

**Instructional Design**

- Active learning: Learning objectives
- Active learning: Learning activities
- Student engagement: Video length
- Student engagement: Delivery method and tone
- Student engagement: Pace
- Student engagement: Assessment
- Cognitive load: Segmenting
- Cognitive load: Signaling
- Cognitive load: Multi-modal learning

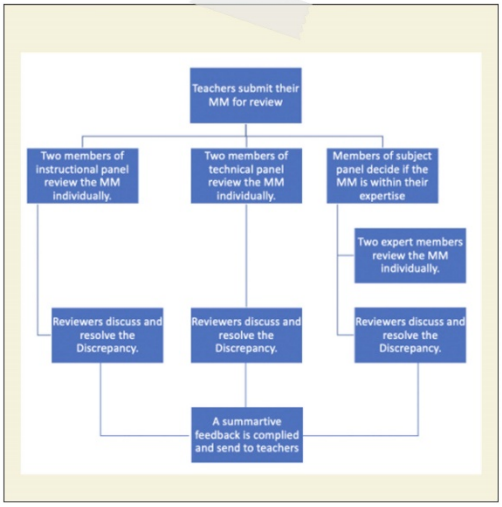
**Subject content**

- Accuracy and currency
- Level of difficulty
- Relevance to learning objective
- Relevance to learning activities
- Relevance to assessment
- Content coverage
- Sources and references
- Copyright

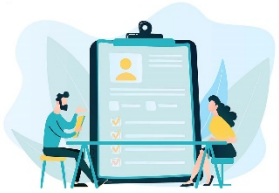
**Technical issues**

- Audio quality
- Video quality
- Accessibility: Subtitle/Transcript
- Accessibility: Typeface and Color
- Mobile-friendly design

## How do we carry out the review process?




The teachers can submit their MM to us for review at the development stage or the completion stage. The MM will be sent to the three review panels to evaluate three aspects of the MM (namely, instructional design, subject content and technical issues). Two members of each panel will review the MM individually and give constructive feedback. Discrepancy will be resolved through a panel meeting. Finally, the scores for each aspect of the MM will be calculated and the reviewers' feedback will be sent to the teachers for further improvement of the productions. With the teacher's consent, their good practice of the MM will be disseminated to encourage wider use of high-quality MM across different disciplines in later year.



## What do we learn so far?

We conducted the first round of the review in April 2021 and identified some good practices in MM production. Those practices can effectively attract students' attention and interest. The practices are listed as follow:

1. Clearly present the learning objectives and outcomes at the beginning of the MM
2. Use case study to clarify concepts, and provide supplementary information
3. Use various types of question, such as MC, matching and fill-in-the-blank questions to check students' understanding
4. Use mind map/table in the summary to visualize or emphasize key concepts
5. Use conversational style narration to make students feel warm and engaged
6. Break down the MM into sessions if the video length is too long
7. Highlight important information using visual effects to increase retention of learned concepts
8. Illustrate abstract ideas with real-life problems or current social issues to hold students' attention.
9. Try to make learning activities are compatible with mobile devices because many students study while travelling

For more information about the project, please contact Mr. Yeung at 3943 0835 or tszheiyeung cuhk.edu.hk.
This project is funded by the Teaching Development and Language Enhancement Grant (2019-22).

## P44: Development of a Quality Assurance Mechanism for Micro-Module Production

**Presented by**
Mr Eric Tsz Hei YEUNG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Prof Paul Lai Chuen LAM, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Ms Carmen Ka Man LAU, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
Micro-modules (MM) are increasingly used in various courses to support innovative teaching and learning strategies at CUHK, but there is no existing evaluation mechanism to ensure the overall quality and effectiveness of MM. To assure and enhance the quality of MM, we developed a comprehensive university-wide mechanism after conducting a thorough literature review on the existing e-learning framework and taking reference from the quality assurance guidelines of well-known universities or accreditation bodies. The mechanism consists of three panels to evaluate three key aspects of a MM, namely, instructional design, subject content and technical issues. After consultation of the project steering committee and a trial round of evaluation of the MMs produced in earlier years, an evaluation rubric with twenty-two sub-categories was also finalized. This poster will elaborate on the rigorous development process of the evaluation mechanism and explain how the mechanism can contribute to the advancement of online teaching and learning. Good practices of MM production collected from this project will also be shared in this poster presentation.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# eLearning Pedagogical Consultation
# Sharing of Real Cases

## Why are we here for you?

The TDLEG-funded project **"eLearning Pedagogical Support and Consultation"** aims to develop close relationship with teachers who wish to further enhance their teaching approaches. We wish our partnership can support teachers to develop technology-enhanced and evidence-based teaching practices.

## Our Service

- **One-on-one consultations** to facilitate the adoption of eLearning teaching practices and enhancement of teaching effectiveness
- We will provide consultation and evaluation service with the **ADDIE** approach, which stands for **Analysis, Design, Development, Implementation and Evaluation.**

**Dr. Han Dongkun**
Department of Mechanical and Automation Engineering

## Real Cases Sharing

**Dr. Law Wai On**
Department of Linguistics and Modern Languages

### Analysis
Identify your goals on designing curriculum | Realize your T & L constrains | Explore various delivery options

To produce teaching videos for flipped classroom and to enhance peer learning through group training on class (Course offered by Engineering School)

Target: Engineering students and UG students from any disciplines

To enhance teaching effectiveness and enhance student engagement in online learning environment

Target: Linguistic students

### Design
- Suggest instructional strategies
- Introduce technology that fits your learning outcomes

1. Turn students into active learners by asking them to answer the embedded questions in the interactive videos
2. Keep students' attention by making videos short with graphics and images
3. Develop an engaging learning community among students by using platforms where students can see each other's responses through learning activities

### Development
- Provide tips and suggestions on learning platforms and strategies
- Do a pilot to collect your students' feedback

1. We did a real time Zoom lesson observation
2. We invited 4 students to do survey and interview to collect their thoughts about the Zoom lessons, for example online lesson operation or teacher-student communication

### Implementation
- Observe how your course is delivered
- Collect students' feedback and study the learning analytics

1. Embed interactive learning activities into the videos by Camtasia.
2. Put videos and other learning materials on one single platform such as Padlet
3. Make use of students' responses on Padlet for further adjustment to facilitate teaching during lectures

### Evaluation
- Conduct surveys or interviews with your students
- Provide suggestions on actionable changes

1. Suggestions and advice are given after analyzing student data, such as advanced method to organize group activates in zoom environment
2. Use various online activities such as polling, reflection, peer review, blogs, debates, digital storytelling and etc.

## YOUR GOALS, OUR STRATEGIES


**Contact us**
Please contact **Flora Leung** at **3943 1305** or **floraleung@cuhk.edu.hk** for more information.


**Website link**
https://www.elite.cuhk.edu.hk/elearning-consultation

香港中文大學
The Chinese University of Hong Kong

Centre for Learning Enhancement And Research
學與教研究中心

Scan QR code to visit our website

## P45: eLearning Pedagogical Consultation: Sharing of Real Cases

**Presented by**
Ms Flora Man Ki LEUNG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Ms Flora Man Ki LEUNG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
In order to support CUHK teachers in sustaining practice of teaching excellence, our project provides personalized consultation services to teachers to re-design innovative pedagogical approaches. Through face-to-face or online meetings or a mix of both, we partner with teachers to identify or develop new ways to help students achieve the best learning outcomes. In the past year, we have developed a close partnership with more than 20 teachers who wish to further enhance their teaching approaches. Using the ADDIE (Analysis, Design, Develop, Implement, Evaluate) model as the skeleton of discussion, we helped teachers identify their T&L constraints and provided suggestions to get students stay focused, motivated, and engaged with new eLearning tools, platforms and strategies. In this presentation, we will present two real cases to show how constructive and structured consultation can help teachers realize their teaching goals. It is expected the sharing will inspire teachers to reflect on their teaching practices more systematically and effectively.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Central Unit Platforms and Services

# TEACHING AND LEARNING COMMUNITY OF PRACTICE

香港中文大學 The Chinese University of Hong Kong
Teaching and Learning Community of Practice

Professor Paul Lai Chuen LAM[1], Dr Isabel Shui Shan HWANG[2], Dr Fred Kei Tat KU[3], Dr Ann Sin Nga LAU[2], Dr Frankie Kwan Kit WONG[3], Dr Jacqueline Wai Ting WONG[3] and Dr Wai Tat WONG
[1]Centre for Learning Enhancement And Research, [2]School of Biomedical Sciences, [3]Department of Decision Sciences and Managerial Economics, [4]Department of Geography and Resource Management, and Department of Anesthesia and Intensive Care

EXPO 2021

## WHO WE ARE

Teaching and Learning Community of Practice (T&L CoP) is a teacher community at The Chinese University of Hong Kong for connecting teachers who have shared interests on various teaching and learning practices and needs. This initiative first started in 2017 with interest groups covering themes specifically on eLearning, then it was expanded and renamed in 2019 to cover a wider range of teaching interests and innovations. The restructured T&L CoP includes a total of 14 interest groups, with its own mission and goals:

- Online, Hybrid and Blended Learning Pedagogical Explorations
- STEM (Science, Technology, Engineering and Mathematics) Education
- Gamification and Game-based Learning
- Teaching and Learning and Inter-Professional Teaching in Medicine Discipline
- Language Education
- Curriculum Design and Development
- Application of Immersive Technologies (e.g. Virtual Reality, Augmented Reality, Extended Reality)
- Artificial Intelligence (AI) for Education
- Micro-module and Courseware Development
- Learning Opportunities Outside Classroom with Technology (e.g. Location-based learning)
- Teaching and Learning for Social Good (e.g. Service Learning, Social Entrepreneurship and Global Citizenship)
- Assessment for Learning
- Research-based Education and Learning Analytics
- Professional Development

## WHY JOIN US

You Will...

be given the priority to attend T&L CoP activities

gain the opportunity to interact with colleagues from different disciplines and educators across institutions

be supported by the community to share your experience or to organise activities for your interest group(s)

be recognised as a T&L CoP member

## WHAT WE DO

The T&L CoP aims to facilitate dissemination, sharing and advancement of teaching practices. Activities in the interest groups include sharing workshops, group collaborations, invited talks, cross-university events, student symposium, and production of Teaching and Learning resources (e.g. videos) to disseminate good practices.

Panel Discussion on "New Normal Teaching Experience and Reflection" at the CUHK Teaching and Learning Innovation Expo 2021 (29 July 2021)

Online Symposium on Redesigning Student Learning Experience in Higher Education (June 2021)


The 3rd RELEIHE Project competition and the Symposium are funded by T & L CoP

### Teaching and Learning Community of Practice Sharing Series (2021)


AI Chatbots for Higher Education: Theory and Practice


Teaching and Learning for Social Good in Practice

Wherever You Go, Something Will Be Right There Waiting For You To Learn: Experience Sharing On Location-Based Learning

### Best Practices for Zoom/Online Teaching: Teacher Sharing Series (2020)

Teaching with Zoom: some issues and quick tips
Dr. Fred KU, Department of Decision Sciences and Managerial Economics


Ride on the trend of Zoom teaching: did I run my class well?
Dr. Ann LAU, School of Biomedical Sciences


Beside Zoom and Panopto, what else? A sharing on using online discussion forum and game-based learning
Dr. KIANG Kai Ming, Office of University General Education

To learn more about the Teaching and Learning Community of Practice, visit http://www.cuhk.edu.hk/clear/CoP

Funded by Teaching Development and Language Enhancement Grant (TDLEG) 2016-19 & 2019-22 Triennium

## P46: Teaching and Learning Community of Practice

**Presented by**
Prof Paul Lai Chuen LAM, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Dr Isabel Shui Shan HWANG, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Fred Kei Tat KU, Department of Decision Sciences and Managerial Economics, The Chinese University of Hong Kong
Dr Ann Sin Nga LAU, School of Biomedical Sciences, The Chinese University of Hong Kong
Dr Frankie Kwan Kit WONG, Department of Geography and Resource Management, The Chinese University of Hong Kong
Prof Jacqueline Wai Ting WONG, Department of Decision Sciences and Managerial Economics, The Chinese University of Hong Kong
Dr Wai Tat WONG, Department of Anesthesia and Intensive Care, The Chinese University of Hong Kong

**Abstract**
Teaching and Learning Community of Practice (T&L CoP) is a community at The Chinese University of Hong Kong for connecting academics and teaching staffs. It aims to facilitate dissemination, sharing, advancement of teaching practices, and most importantly, to enhance mutual and peer support on various teaching and learning needs. This initiative first started in 2017 with interest groups covering themes specifically on eLearning pedagogies and contents , then it was expanded and renamed in 2019 to cover a wider range of teaching interests and innovations. The restructured T&L CoP includes a total of 14 interest groups, in which each of them has its own mission and goals. It is believed that teachers with different needs and passions can find the right interest groups to join. Activities in the interest groups are diversified, including sharing workshops, group collaborations, invited talks, and demonstrations of latest education technologies. Taking this opportunity, we would like to report the progress of T&L CoP, introduce its latest activities, as well as recruit more teachers into the community. For details of the community, please visit http://www.cuhk.edu.hk/clear/CoP.

**Video Stream**

Video

**Session**

Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**

Central Unit Platforms and Services

# A Smartphone App for Course Resources and Interaction

Darwin Lau (MAE), Joe Tsang (CLEAR), Andy Wan (CLEAR), Kevin Wong (CLEAR)

# P47: A Smartphone App for Course Resources and Interaction - Driven by Fabulearn

**Presented by**
Prof Tat Ming Darwin LAU, Department of Mechanical and Automation Engineering, The Chinese University of Hong Kong
Mr Joe TSANG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Mr Andy WAN, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Mr Kevin WONG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
In this project, we present a smartphone APP that is developed as a "one-stop shop" with resources and interaction for students to improve their learning experience. Currently, students typically get course resources through learning management systems, such as Blackboard. However, such systems are typically for storing static content such as lecture slide (PDF files) or interact with web-based discussion boards. Lacking strong interactivity and motivation to access the material decreases the usage and hence lesser study time of the students. The developed APP aims to address this by providing valuable course study material and interactivity at the convenience within the students' pockets. The features of the APP includes: pre-class reading material, in-lecture hands-on exercise material, revision cards, question bank with progressive missions that unlocking additional material to encourage students to revise, and even messaging to their fellow students and teaching staff. In addition to the motivating students the study, the APP allow tracking of the student's progress, performance and suggest room for improvement with respect to the average performance of the whole class. The APP develops upon existing system frameworks, namely Fabulearn, uReply and uConnect, and is compatible with both Android and iOS systems. Currently in alpha testing stage, the APP will be deployed in the course MAEG3060 Introduction to Robotics in the 2021-22 academic year. It is anticipated that the APP interactivity and convenience combined with resourceful material would provoke student learning and ultimately student learning outcomes.

**Video Stream**
Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# uReply in the Pandemic and Beyond


Professor Paul Lam & Kevin Wong
(Centre for Learning Enhancement And Research)

virtual classes significantly boosted the usage of uReply

introducing a new assessment tool that supports...

- ✔ out-of-class homework, quizzes, and examinations
- ✔ evaluation of students' academic performance


Revamped learning system

Various advanced features and functions


New report format

Improved platform's layout and user friendliness

ureply@cuhk.edu.hk

## P48: uReply in the Pandemic and Beyond

**Presented by**
Mr Kevin WONG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Prof Paul Lai Chuen LAM, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
Under the recent pandemic outbreak, the teaching mode of most university courses is converted from physical to online, which favors the growth of virtual classes and significantly boosts the usage of our interactive learning platform – uReply. To enhance the user experience of online learning and facilitate online evaluation of students' academic performance, we built the new "Assessment" tool to support out-of-class quizzes and examinations. In the future, we will strive to provide new report formats, improve the platform layout and user friendliness, revamp the learning system and create various advanced features and functions to promote learning progress of students and enhance online teaching quality and effectiveness.

**Video Stream**
Video

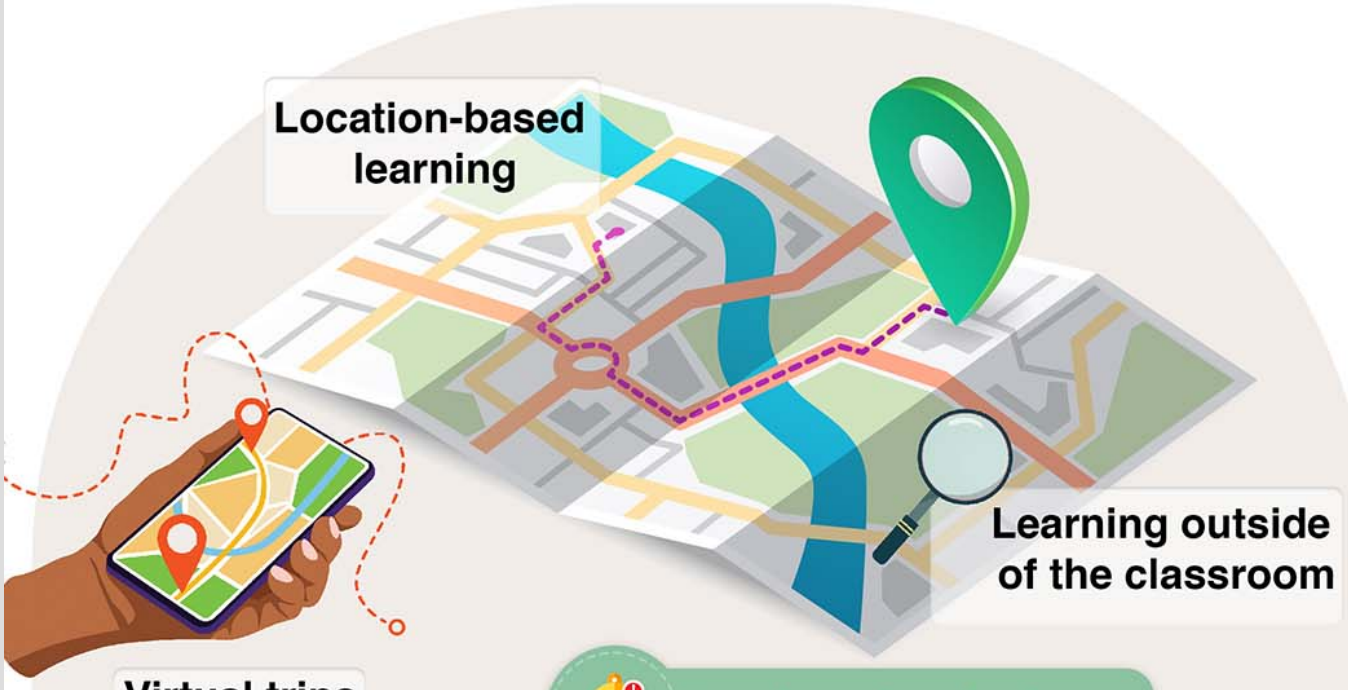
**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Central Unit Platforms and Services

# uReply Go with enhanced route planning

Andy Wan and Kevin Wong
(Centre for Learning Enhancement And Research)




**Virtual trips**

to diversify the virtual classes' experience and provide a unique opportunity to enjoy learning activities other than lectures

**New learning features**

**Route planning**

**Time limit**

**Enhanced academic reports' analysis**

ureply@cuhk.edu.hk

# P49: uReply Go with Enhanced Route Planning

**Presented by**
Mr Kevin WONG, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Mr Andy WAN, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong
Prof Paul Lai Chuen LAM, Centre for Learning Enhancement And Research, The Chinese University of Hong Kong

**Abstract**
uReply Go provides location-based learning experience to students and teachers with the use of Geographical Positioning System (GPS). It offers out-of-the-book tasks and challenges for students to enjoy a better learning process and achieve the expected learning outcomes during their journey. Over the years, teachers have used uReply Go to create learning trips for students to learn various topics such as historic architectures and geographic landscape inside and outside Hong Kong, with favorable reception from students. In the coming semester, we will launch various new learning features including the route planning tool with a specific sequence of locations, time limit function and enhanced academic reports with more detailed and comprehensive analysis of students' performances. To adapt with the current pandemic situation, virtual trips are also provided in the updated version of uReply Go to increase the diversity of virtual class experience and provide students with a unique opportunity to enjoy learning activities other than online lectures.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Central Unit Platforms and Services

# Application of audiobook in teaching GFN

Jiang Lili, CUHK, Shenzhen

## Introduction

The GE foundation course In Dialogue with Nature (GFN) studies the history and philosophy of science by reading and discussing a series of classic texts. However, a large proportion of students feel frustrated in reading the texts because they are not familiar with the content and most texts are written in English. Digital audiobook has become more and more popular. Data from Audible (the Amazon-owned audiobook platform) shows audiobook is much more appealing to the 18-24 age group than the print version (1). This study will investigate if audiobook can help in reading difficult texts.

## Method and finding

The audio version (purchased from Audible) of Text 4 (Chapter 4 of On the origin of Species), Text 6 (Chapter 6 of Silent spring) and Text 8 (Chapter 4 and 28 of In search of Memory) were sent to the students before class discussion. They were advised to use the audiobook together with the print version. At the end of the semester, a survey showed among all the students who listened to the audiobook (27 out of 67), most students (23 out of 27) consider it is useful to finish the reading and will recommend it to future GFN students.

**Ref.**

Audiobook Trends and Statistics for 2020
https://goodereader.com/blog/audiobooks/audiobook-trends-and-statistics-for-2020



# U01: Application of Audiobook in Teaching GFN

**Presented by**
Dr Lili JIANG, GE Division, School of Humanities and Social Science, The Chinese University of Hong Kong, Shenzhen

**Abstract**
The GE foundation course In Dialogue with Nature (GFN) studies the history and philosophy of science by reading and discussing a series of classic texts. However, a large proportion of students feel frustrated in reading the texts because they are not familiar with the content and most texts are written in English. Digital audiobook has become more and more popular. Data from Audible (the Amazon-owned audiobook platform) shows audiobook is much more appealing to the 18-24 age group than the print version (1). This study will investigate if audiobook can help in reading difficult texts. Method and finding The audio version (purchased from Audible) of Text 4 (Chapter 4 of On the origin of Species), Text 6 (Chapter 6 of Silent spring) and Text 8 (Chapter 4 and 28 of In search of Memory) were sent to the students before class discussion. They were advised to use the audiobook together with the print version. At the end of the semester, a survey showed among all the students who listened to the audiobook (27 out of 67), most students (23 out of 27) consider it is useful to finish the reading and will recommend it to future GFN students. Ref. 1. Audiobook Trends and Statistics for 2020 https://goodereader.com/blog/audiobooks/audiobook-trends-and-statistics-for-2020

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

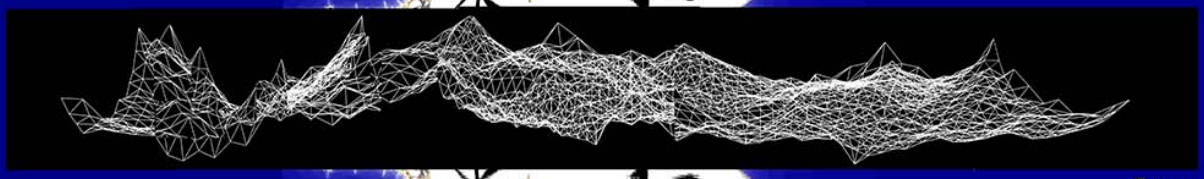
# ART HISTORY THAT IS MATHEMATICAL & EXPERIENTIAL

*Wen Xing*
*HSS, The Chinese University of Hong Kong, Shenzhen*

邢文：數理美術史

## Mathematical Art History

- An introduction to both conventional and mathematical art history
- Perspectives of mathematics and multi-dimensions, such as fractal and hyper dimensions
- Interdisplinary Active Learning and Experiential learning



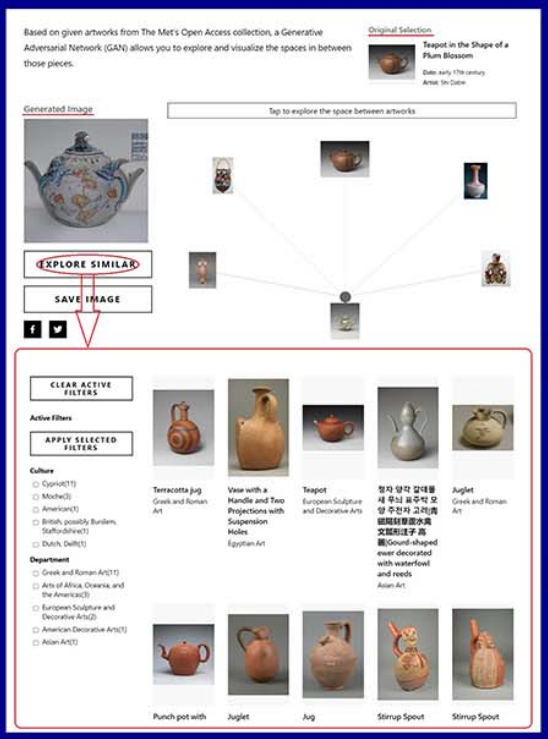
***Forever***
*Fractal Chinese Calligraphy By Xing Wen*
邢文分形書法作品：《永》

## Objectives:

- To learn basic knowledge of art history, both conventional and mathematical
- To interpret art history from a perspective of mathematics
- To create art works in the context of mathematical art history (optional)

## Methods:

- 2 + 2 teaching mode; Introductory and interdisciplinary lectures on both conventional and mathematical art history
- Tutorial A: Projects and presentations on relevant museum collections or reliable representative works
  - Or practice and projects of traditional art, such as calligraphy, painting, seal-cutting, and pottery making, in the context of mathematical art history
- Tutorial B: Mathematical examinations of relevant art works
  - Or computer-assisted art projects, either mathematical examinations, such as fractal similarities between traditional Chinese landscape brushstrokes and Jackson Pollock's (1912-1956) drip painting patterns, or traditional/fractal art work generation, such as traditional Chinese painting or oracle bone and bronze inscription calligraphy works;
  - Other options and further studies, such as The Met's Open Access collection and GAN generation and further explorations (please refer to the illustration to the right)




## Voices from Dartmouth Students:

- Professor Xing is so passionate about what he is teaching, which makes it exciting to learn the course material! The second hour of the 10A period was used to practice our calligraphy or painting and it was a great way to ask questions in a low-pressure environment.
- I think Professor Xing really makes sure that he assesses the final projects based on the principles we learn about in the course. It is not about "natural talent" or anything like that -- it's about effort and how you approach the painting.

*Acknowledgments:*
*The Chinese University of Hong Kong, Shenzhen, and Dartmouth College*

## U02: Art History That Is Mathematical and Experiential

**Presented by**
Prof Wen XING, School of Humanities and Social Science, The Chinese University of Hong Kong, Shenzhen

**Abstract**
This project introduces an innovative art history course that is both mathematical and experiential. By comparing conventional art history to art history interpreted/reconstructed mathematically, this new course presents the students with both interdisciplinary training and unique hidden dimensions to reconsider our knowledge of art history and the world we live in. For example, traditional brushstrokes in traditional Chinese landscape painting could be mathematically similar to Jackson Pollock's drip painting patterns, and Pollock's claim "I Am Nature" could encounter traditional Chinese Daoist cosmology in fractal dimensions. After taking introductory lecture courses on conventional and mathematical art history, the students are instructed to conduct Active Learning in specific art history areas of their own interests. They have three options to further develop their academic course work, i.e., computer-assisted projects involving Artificial Intelligence and/or Fractal Geometry after their Active Learning, conventional projects with Experiential Learning and traditional art practice in proper art historical context, and course papers with examinations of either conventional or mathematical or both approaches to art history. The success of Princeton undergraduate student Alice Xue's GAN (Generative Adversarial Networks) framework for traditional Chinese landscape painting generation is definitely very encouraging for the class participants.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

# Computer-assisted pronunciation training: Adapting the speech analysis software Praat to provide visual feedback on students' pronunciation

**Wai Ling Law & Liane Jeschull**
The Chinese University of Hong Kong, Shenzhen

## BACKGROUND

- Pronunciation has a crucial role in conveying meaning both effectively and efficiently in non-native speech.
- Despite clear impacts of pronunciation on intelligibility, pronunciation teaching is often rendered a secondary role (Derwing & Munro, 2005).
- There is a lack of empirically-proven methods and systematic pedagogical materials for pronunciation training, accompanied by high levels of instructor uncertainty (Foote et al., 2011)
- Language instructors show a lack of professional training and confidence in teaching pronunciation (Burgess & Spencer, 2000; Derwing, 2010).
- Instructors often have to rely on their intuitions in explaining pronunciation and some ad-hoc pronunciation teaching methods such as modeling and corrective feedback (Olson, 2014).
- Consequently, language instructors dedicate little class time to pronunciation teaching (Foote et al., 2011; Foote et al., 2013; Murphy, 2011).

## CURRENT PROJECT AND ITS RATIONALE

- To adapt the use of the speech analysis software, Praat, to help L2 learners see phonetic information and visualize their pronunciation errors so that:
  - L2 learners' attention can be directed to phonetic information explicitly to help them incorporate input into developing L2 sound categories.
  - L2 learners can better notice the gap (Schmidt & Frota, 1986) – the discrepancy between the L2 input and their own production through explicit training and effective corrective feedback (Schmidt, 1990, 2001, 2010).
- Earlier work has shown that L2 learners make significant improvements in productions of prosodic features such as intonation (de Bot, 1980; 1983; Levis & Pickering, 2004) and durational contrasts of vowels (Carey, 2004; Okuno, 2013; Saito, 2007) and consonants (Lord, 2005; Motohashi-Saigo & Hardison, 2009; Offerman & Olson, 2016; Olson, 2014) with access to visual feedback.

## EVALUATION OF PROJECT OUTCOMES

- A pretest-posttest protocol will be administered to an experimental group receiving visual and verbal feedback and a control group receiving verbal feedback only.
- On two areas that are particularly challenging for our students and that can impede intelligibility:
- Schwa-insertion in word-final position
  - Over-articulating the word-final sound to an extent that a sound that does not originally exist in the word, often a schwa [ə], is inserted.
  - E.g. just [dʒʌstə], post [poʊstə]
- Replacing diphthongs (a combination of two vowels produced as one single sound) with monophthongs (one single vowel)
  - Consequently, not distinguishing pairs of distinct words that only differ in one sound in English
  - E.g. *failed* [feɪld] the course vs. *felled* [fɛld] the course, your *smile* [smaɪl] vs. your *smell* [smɛl].
- Improvements in the pronunciation accuracy of the vowels will be determined by acoustic analysis and native-speaker judgements.

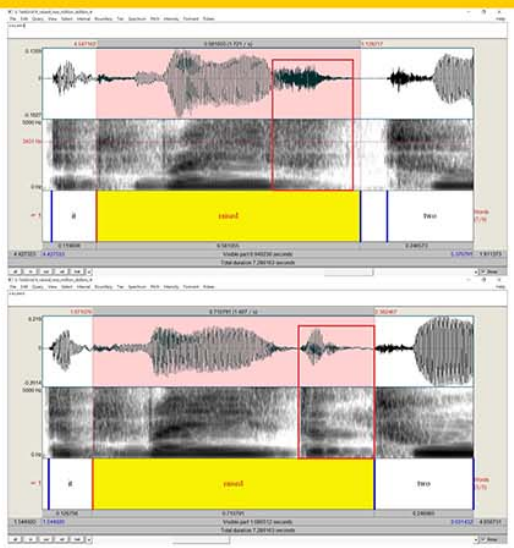


Fig 1. A side-by-side comparison of teacher's production (top: without schwa) and student's production (bottom: with schwa insertion).

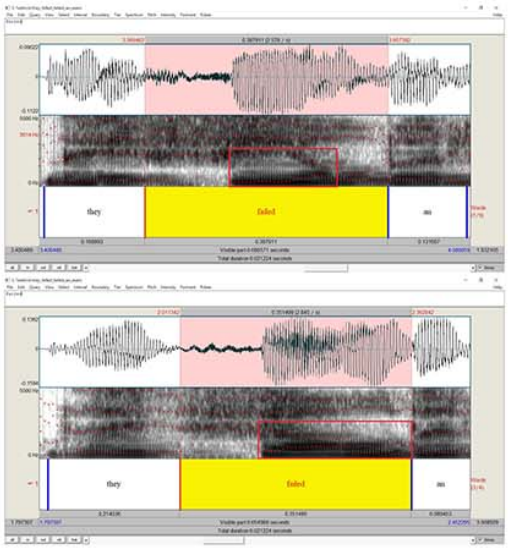


Fig 2. A side-by-side comparison of teacher's production (top: produced as a diphthong) and student's production (bottom: produced as a monophthong)

## EXPECTED OUTCOMES

- Adaptation of the software ready for use in class or in language learning center
- A manual and training in its use for both students and teaching staff
- The adaptation has great potential to:
  - offer targeted pronunciation training to students that regular English courses on campus are currently unable to provide
  - incorporate research-based techniques into language classrooms
  - be used in online teaching

## ACKNOWLEDGMENTS

We are thankful for the generous support from the Teaching Innovation Grant from the Chinese University of Hong Kong, Shenzhen.



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## U03: Computer-assisted Pronunciation Training: Adapting the Speech Analysis Software Praat to Provide Visual Feedback on Students' Pronunciation

**Presented by**
Dr Wailing LAW, School of Humanities and Social Science, The Chinese University of Hong Kong, Shenzhen
Ms Jeschull LIANE, School of Humanities and Social Science, The Chinese University of Hong Kong, Shenzhen

**Abstract**
To perform well as a student at an English-medium university in mainland China, like CUHK Shenzhen, one core ability is to make oneself understood in English. Even though our students are already rather proficient in English, many continue to struggle with English pronunciation. Therefore, our project aims to help students improve their pronunciation of key English vowels that are particularly challenging for Mandarin-speaking students by developing an innovative teaching and learning tool. Traditionally, language teachers have often had to rely on their intuitions in explaining pronunciation and use ad-hoc pronunciation teaching methods such as verbal corrective feedback, yielding limited long-term success. To overcome these deficiencies, the speech analysis software Praat will be adapted to help visualize students' pronunciation errors, so that they can more readily notice the discrepancy between the target language input they receive and their own production. Such an adaptation aims at directing students' attention to useful phonetic information in the input. It is expected that with more input incorporated into developing the sound categories, students will be able to produce increased target-like articulations of the sounds that are challenging for them. To evaluate the project outcomes, a pretest-posttest protocol will be administered to an experimental group receiving visual and verbal feedback and a control group receiving verbal feedback only. Improvements in the pronunciation accuracy of the vowels will be determined by acoustic analysis and native-speaker judgements. There is considerable potential for this tool to be used by teachers in the classroom and by students for self-directed learning.

**Video Stream**
Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Digital Design House – An E-learning Platform for Collaborative Product Development

Speaker: Cheung Hoi Hoi
*HH Cheung, SH Choi, Ray Zhong, and Y Cheng
Department of Industrial and Manufacturing Systems Engineering, Faculty of Engineering
The University of Hong Kong
*Corresponding Author: hh.cheung@hku.hk; 852-39172589

**Abstract**

The recent social events and COVID-19 pandemic have posed huge challenges to teaching and learning. The teaching team seized these challenges as opportunities to further develop and incorporate e-learning in experiential projects and capstone courses, which otherwise mandate intensive face-to-face interactions. The team has developed the Digital Design House – An e-learning platform for collaborative product development – to facilitate experiential learning and hands-on projects in various courses, such as "ENGG1320 Engineers in the Modern World" and "IMSE2121 Engineering Training", that carry substantial components of innovative product design and development.

The Digital Design House is a cloud-based experiential e-learning platform (https://dp.imse.hku.hk) that provides remote access to CAD facilities for students to interact among group members and with teachers in virtual environments to share their ideas for product design and development. This e-learning platform integrates a set of advanced information and computing, 3D Hologram displays/devices, virtual reality (VR), mixed reality (MR) and mobile devices with a suite of in-house developed applications for stereoscopic visualisation of virtual objects in an immersive virtual environment to facilitate systematic training and development of students' innovative abilities through experiential learning. It not only allows students at different geographical regions and teachers to ubiquitously conduct teaching and learning, but also facilitates online lectures via video conferencing like Zoom or Microsoft Teams with more interactions in a virtually face-to-face environment. Indeed, this platform helps students understand what and how various knowledge and feasible technologies can be effectively integrated to create a feasible design/solution in a practical and innovative approach. As such, students are inspired with a stronger desire, self-initiative and enthusiasm for exploring their potential in innovative creations.

**The Proposed Cloud-based Experiential E-learning Platform**

The proposed e-learning platform would be developed for facilitating online experiential teaching and learning. The proposed e-learning platform mainly consists of the following systems:

- An online teaching/learning system with an integration of a video conferencing tool, such as Zoom and Microsoft Teams facilitates teachers to live explain and demonstrate how equipment is configured and used to do hands-on tasks in a remote way when a teacher is conducting a lecture. Simultaneously, students, who even are not in a classroom/laboratory, can follow the teacher's instructions to remotely connect such equipment for a live practice. Such online experiential teaching and learning approach can help the students to easily understand and digest engineering knowledge and theories; and
- A cloud-based experiential teaching-and-learning management module has a suite of web applications with an integration of IoT sensors, such as video camera and temperature sensor, for facilitating teachers and students to systematically manage their online experiential teaching and learning and to ubiquitously monitor working status and progress of a laboratory's equipment.

**Expected Deliverables**

The expected deliverables would be as follows:

- A cloud-based e-learning platform that facilitates teachers and students to have experiential teaching and learning at anywhere and anytime;
- A set of digital teaching materials with an innovative integration of advanced digital equipment/devices, including 3D Scanning, 3D printing, laser materials processing systems, robots, IoT sensors, video streaming and recording devices, VR and MR devices like Microsoft MR and HoloLens devices, and mobile devices, would be developed;
- A set of experiential and hands-on projects would be developed for aligning and facilitating the proposed e-learning platform;
- An online experiential pedagogy for virtual teaching and learning would be developed and implemented;
- Students' learning engagement would be enhanced; and
- Teaching and learning quality would be improved.


**Digital technologies, including 3D printing, virtual reality, and Microsoft HoloLens, for collaborative Product Development**

# U04: Digital Design House – A Cloud Online E-learning Platform for Collaborative Product Development

**Presented by**
Dr Howard CHEUNG, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong
Dr SH CHOI, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong
Dr Ray ZHONG, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong
Dr Y CHENG, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong

**Abstract**
The recent social events and COVID-19 pandemic have posed huge challenges to teaching and learning. The teaching team seized these challenges as opportunities to further develop and incorporate e-learning in experiential projects and capstone courses, which otherwise mandate intensive face-to-face interactions. The team has recently developed the Digital Design House – A cloud online e-learning platform for collaborative product development – to facilitate experiential learning and hands-on projects in some capstone and experiential courses that carry substantial components of innovative product design and development. The Digital Design House is a cloud-based experiential e-learning platform that provides remote access to CAD facilities for students to interact among group members and with teachers in virtual environments to share their ideas for product design and development. This online e-learning platform integrates a set of advanced information and computing, 3D Hologram displays/devices, virtual reality (VR), mixed reality (MR) and mobile devices with a suite of in-house developed applications for stereoscopic visualisation of virtual objects in an immersive virtual environment to facilitate systematic training and development of students' innovative abilities through experiential learning. It not only allows students and teachers at different geographical regions to ubiquitously conduct teaching and learning, but also facilitates online lectures via video conferencing like Zoom or Microsoft Teams with more interactions in a virtually face-to-face environment. Indeed, this platform helps students understand what and how various knowledge and feasible technologies can be effectively integrated to create a feasible design/solution in a practical and innovative approach. As such, students are inspired with a stronger desire, self-initiative and enthusiasm for exploring their potential in innovative creations.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Tools, Platforms and EduTech

# Using Zoom session

## to Support Peer-Assisted-Learning scheme for Junior Undergraduates



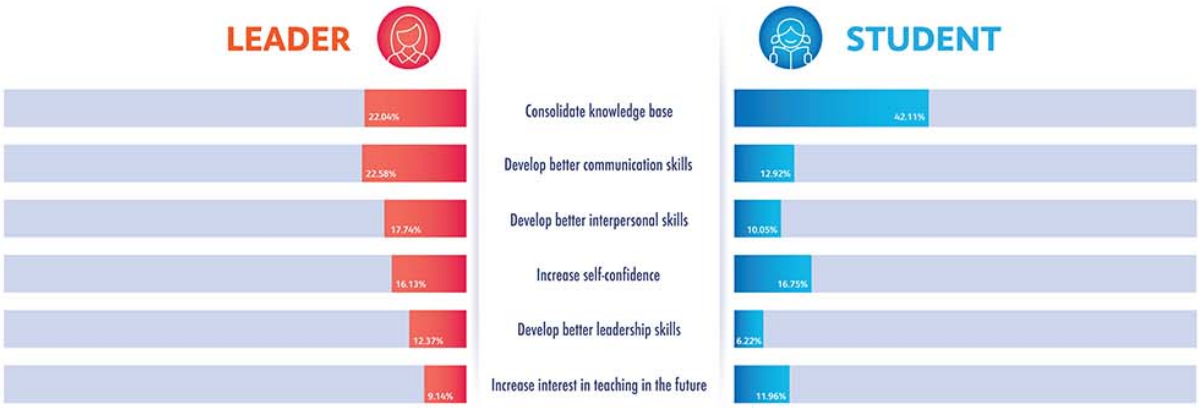
## Abstract

The Peer-Assisted-Learning with Supplemental Instruction (PALSI) scheme has successfully improved students' overall learning and reasoning skills. With the support of regularly scheduled out-of-class sessions, a senior student – PALSI leader could assist the junior students – PALSI students to learn in a small group, in order to facilitate the way of learning to be more interactive with the face-to-face sessions. Previous studies show that PALSI students could achieve higher performance in academic results than non-PALSI students.

Since the pandemic situations in 2019, all the academic activities have been changed to online learning mode, including student orientations, graduation ceremony and lecture sessions. After several semesters, students are used to using Zoom sessions to convert normal face-to-face activities to online mode to deliver a real-time interactive format. However, the prompt interactive communications amongst students in a small group might be hindered.

Through the PALSI sessions with fully online mode using the Zoom platform, feedback from PALSI leaders and PALSI students is collected to investigate the effectiveness in peer discussions, which is the core value of the peer-assisted-learning scheme. The findings from different perspectives, both leader and student, will be explored in order to compare the perception of using Zoom to deliver teaching mode in a small group. It is hoped that the evaluation in using online teaching could provide insights to educators in adopting technology to different teaching group size.


### Leading PALSI sessions has enabled me to (multiple answers)




### Do you think the Zoom environment could facilitate peer discussions?


### Would you like using Zoom if you are the PALSI leader/student again in the next semester?


## Conclusion

The PALSI survey has been successfully collected responses from 94 students and 49 leaders. Although the face-to-face sessions have been replaced by using the Zoom platform, results show that the facilitations would induce different driving force to corresponding roles, as the PALSI sessions have kept involving interactions amongst the leaders and students. Interestingly, both leaders and students barely agreed that Zoom could provide a positive environment for peer discussions, even if they are willing to use the Zoom platform again for supporting PALSI sessions in the future.


Presenter:
Dr. Tarloff S.W. Im
Education Development Officer
Office of Education Development and Gateway Education



Acknowledgements:
Office of Education Development and Gateway Education, CityU
Dr. Crusher Wong, Senior Manager (e-Learning), Office of Chief Information Officer, CityU
Ms. Kayla Lam, IT Officer, Office of Chief Information Officer, CityU
Ms. Angel Lu, Instructional Designer, Office of Chief Information Officer, CityU


CityU
香港城市大學
City University of Hong Kong

# U05: Using Zoom Session to Support Peer-Assisted-Learning Scheme for Junior Undergraduates

**Presented by**
Dr Tarloff S.W. IM, Office of Education Development and Gateway Education, City University of Hong Kong

**Abstract**
The Peer-Assisted-Learning with Supplemental Instruction (PALSI) scheme has successfully improved students' overall learning and reasoning skills. With the support of regularly scheduled out-of-class sessions, a senior student – PALSI leader could assist the junior students – PALSI students to learn in a small group, in order to facilitate the way of learning to be more interactive with the face-to-face sessions. Previous studies show that PALSI students could achieve higher performance in academic results than non-PALSI students. Since the pandemic situations in 2019, all the academic activities have been changed to online learning mode, including student orientations, graduation ceremony and lecture sessions. After several semesters, students are used to using Zoom sessions to convert normal face-to-face activities to online mode to deliver a real-time interactive format. However, the prompt interactive communications amongst students in a small group might be hindered. Through the PALSI sessions with fully online mode using the Zoom platform, feedback from PALSI leaders and PALSI students is collected to investigate the effectiveness in peer discussions, which is the core value of the peer-assisted-learning scheme. The findings from different perspectives, both leader and student, will be explored in order to compare the perception of using Zoom to deliver teaching mode in a small group. It is hoped that the evaluation in using online teaching could provide insights to educators in adopting technology to different teaching group size.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
New Normal in Education

香港浸會大學
HONG KONG BAPTIST UNIVERSITY

# Strategies for online course development

To develop an online course, we have used the following three strategies to make the learning experience more enjoyable.

## To Have a clear structure

This online course we developed is part of an interdisciplinary GE course titled "GDCV 1027 Media studies in a changing society" with a class size of 40-50. This course has three sections:
Week 1: Digital Storytelling in news report
Week 2: Digital storytelling in advertising
Week 3: Digital Storytelling in PR
All these three sections contribute to the understanding of digital storytelling techniques.

## To Make collaboration work

The course materials on FutureLearn were developed and shared with Dr. Lisa Tam (Lecturer in Advertising and Public Relations, QUT Business School, Australia) and Dr. Benjamin Cheng (Senior Lecturer in Communication, HKBU College of International Education). The course materials have both local and international elements that broaden the students' horizon.

## To Engage student

Interactive features were incorporated into this course, including:
a. Videos of practitioners' interviews and short articles that explain the theories and concepts related to media and storytelling techniques;
b. News videos, advertisements and social media contents that illustrate the effects of different storytelling techniques;
c. A discussion forum that encourages students to interact and exchange their ideas and thoughts.

The enrolment and participation of students from HKBU are satisfactory. The extra learning materials helps students to engage in discussion regarding the use of new media in storytelling from both local and international perspective.

Author: Dr. Janet LO Wai Han, Assistant Professor, Department of Journalism

## U06: Strategies for Online Course Development

**Presented by**
Dr Janet LO Wai Han, Department of Journalism, Hong Kong Baptist University

**Abstract**
To develop an online course, we have used the following three strategies to make the learning experience more enjoyable. The first strategy is to have a clear structure. This online course we developed is part of an interdisciplinary GE course titled "GDCV 1027 Media studies in a changing society" with a class size of 40-50. This course has three sections: Week 1: Digital Storytelling in news report Week 2: Digital storytelling in advertising Week 3: Digital Storytelling in PR All these three sections contribute to the understanding of digital storytelling techniques. The second strategy is to make collaboration work. The course materials on FutureLearn were developed and shared with Dr. Lisa Tam (Lecturer in Advertising and Public Relations, QUT Business School, Australia) and Dr. Benjamin Cheng (Senior Lecturer in Communication, HKBU College of International Education). The course materials have both local and international elements that broaden the students' horizon. The third strategy is to engage the students. Interactive features were incorporated into this course, including: a. Videos of practitioners' interviews and short articles that explain the theories and concepts related to media and storytelling techniques; b. News videos, advertisements and social media contents that illustrate the effects of different storytelling techniques; c. A discussion forum that encourages students to interact and exchange their ideas and thoughts. The enrolment and participation of students from HKBU are satisfactory. The extra learning materials helps students to engage in discussion regarding the use of new media in storytelling from both local and international perspective.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# Enhancement of Genre Awareness of Personal Statements and Cover Letters through Stories and Authentic Materials

Teaching and Learning Innovation EXPO 2021


**Dr Simon Wang**
Hong Kong Baptist University
simonwang@hkbu.edu.hk

**Dr Tiffany Chiu**
Imperial College London
t.chiu@imperial.ac.uk


## Needs and Problems of the Students

- Personal statements often required for graduate school applications
- Cover letters for exchange programs, internships and job applications
- Students not yet become members of the target academic/professional community → limited knowledge of the implicit criteria and judgements by readers
- Students are unfamiliar with the 'rhetorical' aspects of the personal statement and cover letter → find it challenging to meet reader expectations (Swales, 1990)
- Authentic statements are relatively difficult to obtain due to their confidentiality

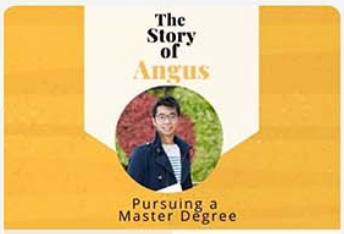
## A Small Private Online Course (SPOC) at FutureLearn

### Writing Your Ways to Academic and Professional Success

**Course aim:** supporting students with their personal statement/cover letter writing for PG programme applications and jobs/internships

- Describe the importance of personal stories in writing application documents

**Inspiring Stories** — WEEK 1
Recognize the importance of stories
Learn about stories of successful applicants
Reflect on our own stories




- Reflect on one's own stories of academic studies, research, work or extracurricular experience

**Meeting Genre Expectations** — WEEK 2
Plan the application documents according to genre expectations


- Explain how one can benefit from the academic and employment programmes and contribute to the respective communities

**Improve Coherence, Vocabulary And Grammar** — WEEK 3
Improve the flow of your writing; choose the right words using corpus tools; achieve grammatical accuracy and sentence variety


- Produce a well-organized and fluent personal statement or cover letter, making one's cases for the target programmes

**Research Literature Management** — WEEK 4
Use Zotero to organize the literature effectively
for writing about applicants' research experience


## Research Insights

- **A genre-based approach** (i.e. rhetorical move-step analysis) to teaching personal statement and cover letter writing (e.g. Samraj & Monk, 2008; Swales, 1990)
- **A 'move'**: a rhetorical component from one part of a text to another (Swales, 1990) → serving a particular communicative function (Upton & Cohen, 2009)
- **A 'step'**: varied strategies/approaches to realise a broader move (Bhatia, 1993; Henry & Roseberry, 2001)
- Introduction of the **rhetorical functions/features** of the successful statements through **annotated notes** on the purposes of the students' writing
- The course design is based on our **publications on the personal statement writing** (i.e. Chiu, 2015, 2016, 2019; Wang & Flowerdew, 2016)

## Practical Tips for Teachers and Students

**Tell the stories based on three interview questions**

Are you competent enough to succeed in the programme?

Are you enthusiastic about joining the programme?

Are you a good team player and a contributing member of the community?

**Give feedback at the planning stage**

Encourage the students to think ahead about their career development

Writing personal statements as a way to reflect on and better understand their identities

## Video & References

http://bit.ly/wangchiu2021

Poster Design by LJ3000

# U07: Enhancement of Genre Awareness of Personal Statements and Cover Letters through Stories and Authentic Materials

**Presented by**
Dr Simon WANG, Language Centre, Hong Kong Baptist University
Dr Tiffany CHIU, Centre for Higher Education Research and Scholarship, Imperial College London

**Abstract**
Despite their importance for students' professional and career development, personal statements for graduate school applications and cover letters for internship and job applications receive little pedagogical attention from university language teachers as they are not closely related to students' academic studies. This e-poster demonstrates the development of a Small Private Online Course (SPOC) at FutureLearn aimed at supporting final year students at two universities in England and Hong Kong facing the challenges of applying for graduate schools and/or internships and jobs. While applicants tend to focus on language issues when seeking help, this course places emphasis on the importance of reflecting on one's learning journey by sharing stories of successful applicants. Annotated personal statements and cover letters samples are used to help the applicants better understand the reader expectations for the two genres. Applicants are guided to consider three common interview questions about competence, passion and teamwork when they draft their application essays and prepare for interviews. Teacher feedback has been provided to the students who work on these materials at various stages of planning, drafting and revising the application documents. Peer learning is encouraged at the FutureLearn platform to establish an inclusive and diverse learning community. We illustrate how research findings from genre studies could inform the pedagogical practices for university students on important and practical matters via an online course.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
MM, SPOC and MOOC

# Facilitating Intercultural Learning through Engagement with Diversity: A Framework for Action

## Framework

### Students
All students engage in intercultural learning in the curriculum & the co-curriculum. They should:
- understand the importance of intercultural learning in their professional & personal lives;
- develop their linguistic skills & utilize culturally appropriate services as needed to participate fully in university life; &
- practice intercultural skills needed for employment at home & abroad.


### Programmes
All programmes contribute to intercultural learning via:
- academic staff articulate, support & assess intercultural learning objectives at different levels of degree programmes;
- professional staff facilitate & evaluate the engagement of, & impact on diverse students of co-curricular programmes; &
- all university staff & students actively develop their intercultural skills.

### Intercultural Learning Through Engagement
All students & university staff are supported to develop knowledge, attitudes, skills & awareness to engage in effective intercultural interactions as professionals & citizens.
- plans, strategies & resources across the university support intercultural learning of all students & university staff;
- engagement with diversity in classrooms, on campus & in the community is respected & embraced as a learning opportunity;
- purposeful design & pedagogy ensure that relevant intercultural learning outcomes are developed, & evaluated in curricular & co-curricular programmes.

### Institutions
University plans describe comprehensive cultural inclusion strategies:
- plans include provision of training in intercultural pedagogies for all staff;
- fit-for-purpose technological resources are provided to support curricular & co-curricular intercultural learning activities; &
- data on impact of cultural inclusion strategies are collected & appropriate adjustments are made as a result.

### Communities
Cultural & linguistic diversity in the local community is celebrated:
- universities embrace cultural & linguistic diversity of local communities as a resource;
- culturally diverse external bodies (e.g., professional & community groups) participate in curricular & co-curricular programmes;
- changing patterns of global mobility guide institutions' cultural inclusion policies & strategies.

## Team Members

**Principal Investigators:**

Dr. M. S. Wong (The Hong Kong Polytechnic University)

Dr. Theresa Kwong (The Hong Kong Baptist University)

Prof. Mike So (The Hong Kong University of Science and Technology)

**Core Team Members:**

Prof. Betty Leask

Dr. Wendy Green

Mr. Percy Hung

Mr. Kubert Wang

Dr. Babak Hassan Beygi

## Rationale behind the Framework

Having an international community that serves the global world is integral to every higher education institution's (HEI) mission to make the world a better place. As students are central to this community, HEIs across the world aim to develop graduates who are culturally competent, global in their outlook, and always seeking to solve complex problems that are applicable worldwide.

The international strategy of many HEIs are to enable all learners to see the world through the eyes of others. The strategic networks of institutional relationships are connecting staff and students with world-leading collaborators, increasing research impact, providing innovative and educational offerings, creating opportunities to expand perspectives and global mindsets, and attracting a diverse community of students and staff. Underpinning all of this is the ambition to contribute meaningfully to global problem-solving, taking into account the diversity of global views at higher education institutions.

We call this strategy "A Framework for Action" to align it unmistakably with the context of the United Nation's 2030 Agenda and its Sustainable Development Goals and to reflect the focus for the next decade in the future of the higher education sector.

## Enlightenment towards Hong Kong's Higher Education Sectors

Our vision for internationalisation goes beyond international staff and students, overseas travel, and cross-border collaboration. We envision a community of people – staff and students – who are culturally competent: able to view the world through the eyes of others, including not only people from different nations or continents, but also different socio-economic backgrounds, races, genders, ages, religions, abilities and more. Students and staff develop their cultural competency at home, abroad and online, and finally as intercultural learners.

By projecting a new internationalisation identity (intercultural learner) that places the development of culturally competent students and staff at its core, we are signalling our commitment to developing successful students, staff, and alumni who contribute to building a better, fairer world around them. Embedding cultural competence into programme content and pedagogy, and adapting our systems and processes internally are part of the task of shifting the university towards this stated vision and mission.

**This project is funded by UGC Funding Scheme for teaching and learning related projects (2016-2019)**

Please scan this QR code to explore our virtual resources centre
https://www.polyu.edu.hk/proj/int/vrc/

If you want to have further information, please send email to us via int.project@polyu.edu.hk

# U08: Facilitating Intercultural Learning through Engagement with Diversity: A Framework for Action

**Presented by**
Mr Percy HUNG, Department of Biomedical Engineering, The Hong Kong Polytechnic University

**Abstract**
Our project "Fostering the Integration of Local and Non-local Students for the Enhancement of Internationalisation and Engagement with Mainland China" is supported by the University Grants Committee under the funding scheme for Teaching and Learning related projects (2016-2019 triennium). As the leading university of the project, The Hong Kong Polytechnic University (PolyU) is collaborating with the Hong Kong Baptist University (HKBU) and the Hong Kong University of Science and Technology (HKUST). Having an international community that serves the global world is integral to every higher education institution's (HEI) mission to make the world a better place. As students are central to this community, HEIs from across the world are aiming to develop graduates who are culturally competent, global in their outlook, and always seeking to solve complex problems that are applicable worldwide. The international strategy of many HEIs is to enable all learners to see the world through the eyes of others. The strategic networks of institutional relationships are connecting staff and students with world-leading collaborators, increasing research impact, providing innovative and educational offerings, creating opportunities to expand perspectives and global mindsets, and attracting a diverse community of students and staff. Underpinning all of this is the ambition to contribute meaningfully to global problem-solving, taking into account the diversity of global views at higher education institutions. We call this strategy, A Framework for Action, to align it unmistakably with the context of the United Nation's 2030 Agenda and its Sustainable Development Goals and to reflect the focus for the next decade in the future of the higher education sector. We call this strategy, A Framework for Action, to align it unmistakably with the context of the United Nation's 2030 Agenda and its Sustainable Development Goals and to reflect the focus for the next decade in the future of the higher education sector.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

The Hong Kong Polytechnic University 香港理工大學

EDC Educational Development Centre 教學發展中心

# Internationalisation@Home efforts at PolyU

**An action framework**
to design and operationalise curricular and co-curricular activities for local & overseas students studying at HK universities

**Seed funding**
to support pilot projects

**Benefits**

- Intercultural competencies
- Global Outlook
- Communications
- Collaborations
- Self-confidence
- …

**Technology-enhanced Global Classrooms**
that enable local and students from foreign institutions to co-learn and co-create via synchronous and asynchronous activities

**Seminars & a Conference**
to share international and local good practices

Contact persons:
**John Sager / Eric Tsui**
Educational Development Centre
The Hong Kong Polytechnic University
Email: john.sager@polyu.edu.hk / eric.tsui@polyu.edu.hk

## U09: Internationalisation@H efforts by The Hong Kong Polytechnic University

**Presented by**
Mr John SAGER, Educational Development Centre, The Hong Kong Polytechnic University
Dr Eric Tsui, Educational Development Centre, The Hong Kong Polytechnic University

**Abstract**
The Hong Kong Polytechnic University has a storied history of providing opportunities for its students and staff to develop intercultural connections with their counterparts from around the World. Rapid advances in educational and collaboration technologies have greatly facilitated these connections to become spontaneous learning communities via carefully designed synchronous and asynchronous activities. PolyU have capitalised on this opportunity to transcend PolyU students' learning beyond the classroom and across international borders. The initiatives undertaken include providing seed money to support pilot projects administered at the department level, developing a cultural-enriching action framework encompassing both curricular and non-curricular activities for local and non-local students and establishing Global classrooms to benefit especially on-campus students to enhance their transcultural competency and other skills. We are particularly proud that even in trying times such as these where social distancing is the norm and international travel is almost entirely prohibited, we have indeed found ways to bypass the drawbacks. By doing the above, we have provided an equally enriching, if not even more sustainable, cost-effective ways for our students and staff to co-learn and collaborate with global learners to acquire transcultural competency as well as reduce the skill gaps that exist between disciplinary subject training and working as competent knowledge workers in industry. Given the high stakes benefits to our students' soft skills, e.g. the improvement of student intercultural competences, the toil we engage in is a labor of our pedagogical love. Based on our current efforts and feedback from various stakeholders, no doubt Internationalisation at home efforts, a whole new dimension of technology-enhanced learning, will continue and expand at PolyU in the years to come.

**Video Stream**

Video

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

## Exposure Studio Productions (ESP)

- Founded in 2020, ESP is a student-supported production house in PolyU. As the name hints, we aim at providing exposure opportunities for students to learn digital media skills that are useful to their studies and future career, as well as to make friends with students from different disciplines.
- We conduct student training workshops on different topics, and the students are free to join the production sessions where they will co-work with staff trainers in delivering professional services to PolyU clients.
- There are occasions when the students take the instructing stage and the staff become solely supportive — these are the courses designed and delivered by the students (and to the students), the "Student-Directed Courses (SDC)".

> *"My heartfelt thanks to you and members of the ESP team for the two exciting workshops! The students enjoyed both sessions thoroughly. They were greatly inspired and impressed by the expertise of the ESP team."*
>
> Phoebe Lin, Assistant Professor at Department of English

## the Student Crew

- 40 Students in 6 Special Interest Groups:
  - Design
  - Live Events
  - Photography
  - Presentation
  - Technology
  - Video Production
- From 13 disciplines
  - AAE
  - AF
  - AP
  - APSS
  - COMP
  - EIE
  - ENGL
  - HTI
  - ITC
  - LSGI
  - SD
  - SHTM
  - SN

> *"ESP is an amazing place for us to grasp new knowledge about digital media and meet international friends who share the same interests! In ESP, we are always encouraged to share our talents and cooperate with different crew members to carry out student directed courses, live shows and video production. This kind of experiential learning helps us find enjoyment of digital media and apply it in day-to-day practice."*
>
> Zhao Ye, Phyllis
> Applied Social Sciences Y3 Student

Join our productive journey with students - Celebrating the first anniversary of ESP, a student-supported media production house

***Anthony HO (EDC, HKPolyU), Kong CHAU (EDC, HKPolyU), Karl LAU (EDC, HKPolyU), Phoebe YIP (EDC, HKPolyU), Cherrie LI (EDC, HKPolyU)***


## our Productions and Future Plans

Apart from video and live productions for MOOC courses and departments, ESP is currently engaged in project collaborations in these areas:

- Student Partnerships
- Digital Literacy
- Peer Teaching among Students and Staff

*The team is eager to start something new with you –*
***let's get in touch!***

> *"May I take this opportunity to express our heartfelt gratitude to the ESP production crew members for their very professional efforts and passion in making the livestreaming even more successful. I must say the student-led studio at BC401 is a wonderful platform for holistic learning experience."*
>
> Student Affairs Office, PolyU

> *"The production team is professional, accommodating and they made the entire process so much easier than we have anticipated. We wholeheartedly recommend them to any department or center who is looking for high-quality video production services."*
>
> Patrick Kor, Assistant Professor at School of Nursing

Watch Video

# EXPOSURE STUDIO PRODUCTIONS

The Hong Kong Polytechnic University 香港理工大學
EDC Educational Development Centre 教學發展中心
esp.bc401

# U10: Join our productive journey with students - Celebrating the first anniversary of ESP, a student-supported media production house in PolyU

**Presented by**
Mr Anthony HO, Educational Development Centre, The Hong Kong Polytechnic University
Mr Kong CHAU, Educational Development Centre, The Hong Kong Polytechnic University
Mr Karl LAU, Educational Development Centre, The Hong Kong Polytechnic University
Ms Phoebe Yip, Educational Development Centre, The Hong Kong Polytechnic University
Ms Cherrie Li, Educational Development Centre, The Hong Kong Polytechnic University

**Abstract**
In this presentation the Exposure Studio Production (ESP) team of the Educational Development Centre of PolyU will share with you their experience in engaging undergraduate students in establishing a production studio, forming a production crew of staff and students, and activities they have done with departments and units of PolyU. Originally positioned as a video production unit, ESP has gradually evolved into a training ground, a stage for online live performances, a teaching space where courses are instructed by students, and a production crew that partners with academics and other staff in media production and learning and teaching projects. Students form the core of ESP and there are currently about 40 student crew members. We will briefly present their background, what they expect from us, how they are organized in the ESP team, and how ESP plans to address their needs to create a better university experience in future.

**Video Stream**

Video

**Session**
Breakout 1: 28 July 12:45 - 13:20

**Hashtags**
#Shortlisted

**Join the Meeting**

**Areas of Interest**
Student-oriented Teaching and Learning

# Enhancing Communication through Formative Assessment and Feedback through an Online Academic Conference

**Dr. Kevin Yung**
**Department of Curriculum and Instruction, The Education University of Hong Kong**

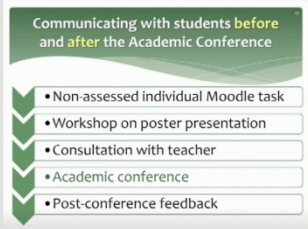
Peer communication (e.g., discussion on designated topics) helps students to develop their critical thinking and communication skills. However, teaching and learning in the online context pose constraints to communication among students. To create more room for dialogue, interactive online discussion is a great approach. It allows students to consolidate their knowledge by taking challenges and introduce new ideas from multiple perspectives. The author used an online academic conference to motivate and assess students in his *Reading in English as a Second Language (ESL)*, an elective course for students in the Master of Teaching programme. The course aims to develop students' knowledge and skills involved in the teaching and learning of reading in ESL. There are two assessments in the course: a poster presentation and an individual essay.

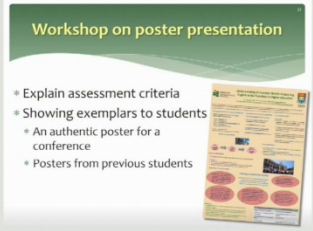
## COURSE DESIGN

The poster presentation was supposed to be conducted as a face-to-face academic conference in the classroom, a social event which allows students to practise their critical thinking and communication skills through sharing their works and exchanging their views with other students. However, due to the pandemic, the academic conference was moved online. The author modified the format of the poster presentation and used **Moodle forum** to organize the online dialogues. In lieu of a face-to-face presentation, he asked his students to write up a show-and-tell script. The author observed that students were able to provide more details and well-organized elaboration when they presented in written form. To facilitate students' engagement in the academic conference, the course was divided into three stages: **Preparation**, **Assessment**, and **Review**.

## 1. PREPARATION STAGE

- Individual tasks - Develop students' knowledge.
- In-class discussion - Inspire students on the poster design.
- Workshop - Explain the form of poster presentation and the criteria of the assessments.
- Consultation – Provide opportunities for students to discuss the draft in groups via zoom and ask for the instructor's comments and advice to prepare for the assessment.



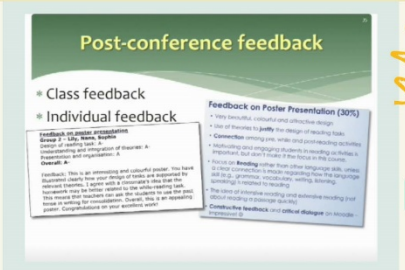




## 2. ASSESSMENT STAGE

- Moodle forum - Organise online dialogues and support students to exchange views in written format.
- Guidelines – Require students to read and ask questions of at least two posters. If a poster has already received four questions, students need to reply to other posters.
- Strict deadlines for poster and question submission - Ensure the conference ran smoothly.
- Feedback from peers - Learn from peers' feedback and students can understand their weaknesses and strengths.
- Feedback from teacher - Provide constructive and critical feedback to students, which helps students stretch their intellectual potential.

## 3. REVIIEW STAGE

- Review session - Give feedback, both in class and individually, respond to students' comments and take a feedforward function for the individual essay.




### Students' views:

- The conference expanded their way of thinking from multiple perspectives.
- They could better analyze some of the reading tasks based on the actual situation.
- The online platform created a community of practice for mutual learning and provided opportunities to communicate with peers in-class and out-class.

香港教育大學
The Education University of Hong Kong

Department of Curriculum and Instruction
課程與教學學系

## U11: Enhancing Communication through Formative Assessment and Feedback through an Online Academic Conference

**Presented by**
Dr Kevin YUNG, Department of Curriculum and Instruction (C&I), The Education University of Hong Kong

**Abstract**
Teaching and learning online pose constraints to teacher-student and student-student communication. It is therefore important for teachers to create extra opportunities for dialogue with and among students. This presentation showcases how communication can be enhanced through a series of activities to facilitate students' learning in the course Reading in English as a Second Language for the Master of Teaching students at EdUHK. One assessment task is a poster presentation in an online 'academic conference' in which students present their design of classroom activities about teaching English through reading and interact with their teacher and peers on Moodle. At the preparation stage, students post their preliminary ideas in a non-assessed Moodle task to solicit teacher and peer feedback. A workshop is organised for the teacher to explain the assessment criteria and illustrate with exemplars what is expected in a poster. Students can also seek further advice from the teacher through small-group consultation online. At the assessment stage, students in groups of three upload their posters onto the Moodle forum, present in writing their designed activities with justification based on the theories covered in the course, and more importantly, engage in critical dialogue with their teacher and peers. After the conference, students can consolidate the feedback to 'feedforward' their individual essays – another assessment task which requires students to critique reading activities. This presentation reports on the findings from student survey and interviews and their posts on Moodle, and offers pedagogical implications for enhancing communication through an online community of student learning.

**Session**
Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**
Curriculum/Course Design

# Strategic Development of the EdUHK Online Classes Platform (EOCP) for the Enhancement of Online Learning and Teaching in Local Schools

Professor KONG Siu Cheung[1,2], Dr. YEUNG Chui Ling, Charlie[2], Ms. MA Po Ke, Carol[2]
1. Department of Mathematics and Information Technology, The Education University of Hong Kong. 2. Centre for Learning, Teaching and Technology, The Education University of Hong Kong.

A project entitled "Strategic Development of the EdUHK Online Classes Platform (EOCP) for the Enhancement of Online Learning and Teaching in Local Schools" funded by the central reserve allocation of The Education University of Hong Kong was kick-started in November 2020. It aims at sharing readily usable teaching and learning materials, good practices, etc., of online teaching with in-service and pre-service teachers, and to provide virtual spaces for these users to exchange insights, leading to pockets of Communities of Practice (CoPs) and a lively hub of resources for online teaching. This poster introduces the major achievements of the project so far, present the feedback from participants, and also discuss how the initiative may contribute to the imminent shift to blended learning under the "new normal" in post-covid times.

## What we have done

**One-stop Online Platform**

**34 Educational Video Clips** + **17 Online Teaching Pedagogy Videos**

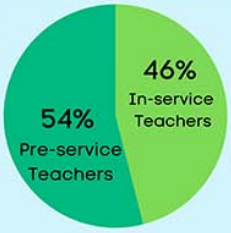

**3 Webinars**
Total 2475 Attendees

Average Satisfaction >4.10 out of 5

**EOCP**

**Online Teaching Experience Scheme**


**9 Workshops**
Total 249 Attendees




**9 School-based CoPs**

Average Satisfaction >4.15 out of 5

## Stakeholder Needs

### In-service Teachers

- More choices of educational video clips to facilitate virtual or blended teaching
- Case sharing related to subject-specific online teaching pedagogy and blended learning
- A learning community which can foster education innovation and continuous improvements

### Pre-service Teachers

- Teaching experience regarding virtual or blended teaching modes
- Hands-on training regarding physical and virtual classroom management
- A learning community which can support professional exchange and sharing of good practices

## Way Forward

1. Invite CoP schools with good online learning experience to share their strategies or demonstrate their real practices to conduct blended learning through webinars, workshops, and on-site demonstrations in the Future Classrooms at EdUHK;
2. Facilitate exchange between pre-service and in-service teachers using various means; and
3. Continue to organise the Online Teaching Experience Scheme and provide more opportunities for EdUHK students to try out new teaching ideas or collaborate in creative activities.

EdUHK Online Classes Platform (EOCP)
**https://eocp.eduhk.hk/**

香港教育大學 The Education University of Hong Kong
Centre for Learning, Teaching and Technology 教學科技中心
Acknowledgement: The project is funded by Central Reserve Allocation Committee (CRAC), The Education University of Hong Kong.

# U12: Strategic Development of the EdUHK Online Classes Platform (EOCP) for the Enhancement of Online Learning and Teaching in Local Schools

**Presented by**

Prof Siu Cheung KONG, Centre for Learning, Teaching and Technology (LTTC), The Education University of Hong Kong

Dr Charlie Chui Ling YEUNG, Centre for Learning, Teaching and Technology, The Education University of Hong Kong

Dr Carol Po Ke MA, Centre for Learning, Teaching and Technology, The Education University of Hong Kong

**Abstract**

A project entitled "Strategic Development of the EdUHK Online Classes Platform (EOCP) for the Enhancement of Online Learning and Teaching in Local Schools" funded by the central reserve allocation of The Education University of Hong Kong was kick-started in November 2020. It aims at sharing readily usable teaching and learning materials, good practices, etc., of online teaching with in-service and pre-service teachers, and to provide virtual spaces for these users to exchange insights, leading to pockets of Communities of Practice (CoPs) and a lively hub of resources for online teaching. The Centre for Learning, Teaching and Technology (LTTC) has been leading four major tasks in this university-wide project: (i) developing a web platform to host video resources; (ii) organising webinars and workshops on online teaching and learning; (iii) producing a series of videos about online pedagogies in four subjects in the primary school curriculum; and (iv) building Communities of Practices (CoPs) in collaboration with local primary schools. In this poster presentation, we will introduce the major achievements of the project so far, present the feedback from participants, and also discuss how the initiative may contribute to the imminent shift to blended learning under the "new normal" in post-covid times.

**Video Stream**

Video

**Session**

Breakout 2: 28 July 13:25 - 14:00

**Join the Meeting**

**Areas of Interest**

Tools, Platforms and EduTech