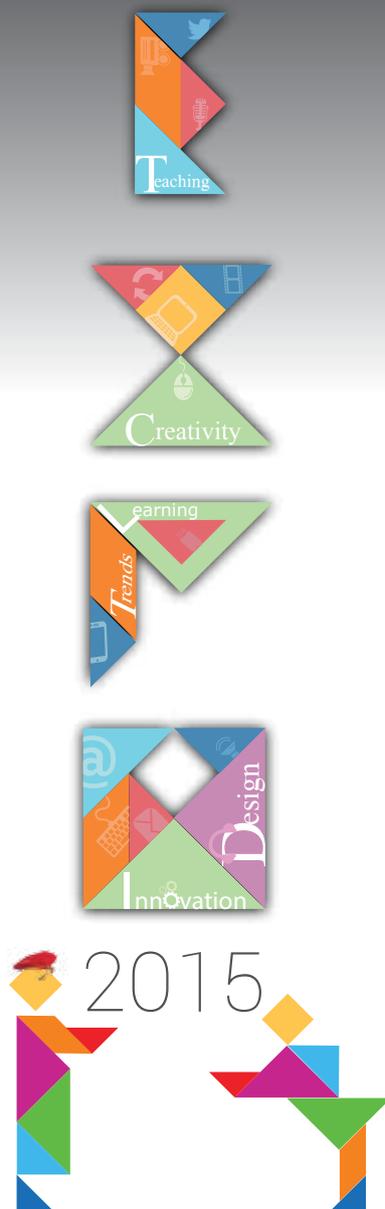


# TEACHING AND LEARNING INNOVATION EXPO 2015



Please visit the Expo website

[www.cuhk.edu.hk/elearning/expo](http://www.cuhk.edu.hk/elearning/expo)



16 DECEMBER, 2015

8:45am - 4:30pm

LT6, 1/F, Lee Shau Kee Building,  
Central Campus, CUHK

16 - 23 December 2015

Follow-up Poster Exhibition  
1/F, Lee Shau Kee Building (LSK)

**Organisers:**

The eLearning Service@CU  
<http://www.cuhk.edu.hk/eLearning>  
A joint project of ITSC and CLEAR.





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## Message from the Vice-Chancellor

### **Prof. Joseph J Y SUNG**

*Vice-Chancellor and President  
The Chinese University of Hong Kong*



It is my great pleasure to learn that the Teaching and Learning Innovation Expo has turned into its ninth year in 2015. Looking back, it reminds us of our steady progress over the years in nurturing a sense of community among teachers in our university as they share innovative teaching and learning strategies and learn the good practices from each other. I see new teaching strategies being promoted and new concepts being adopted across different disciplines in the University in the past years and am glad to see that both teachers and students benefit from them.

This year two holders of teaching-excellence awards will share their secrets of good teaching in the keynote address sessions.

Highlights of this year's Expo include development of micro-module courseware and the adoption of the flipped classroom approach. The adoption of new pedagogy may change the landscape of teaching and learning gradually but fundamentally. It will be a golden opportunity for the teaching community at large to exchange their views on these topics.

There will also be an interesting 'Student Voice' session in which about ten students will explain to the audience how they perceive the effectiveness of multimedia micro-module courseware and the appropriateness of flipped classroom in their courses. We believe that the more engaged teachers and students are in their dialogue about teaching and learning, the better we can create an environment that enhances teaching and learning.

On behalf of the Chinese University of Hong Kong, I welcome you all. I wish the Teaching and Learning Innovation Expo 2015 a success.





## Message from the Pro-Vice-Chancellor

### **Prof. Isabella Wai-yin POON**

*Pro-Vice-Chancellor and Vice-President  
Professor, Department of Statistics  
The Chinese University of Hong Kong*



The annual Teaching and Learning Innovation Expo at CUHK is an excellent opportunity for teachers to share good ideas and practices on teaching and learning. The Expo cultivates a culture of reflective teaching as teachers are encouraged to rethink and refine their practices for better learning outcomes. I have witnessed many occasions in which diffusions of good teaching and learning practices have taken place. Innovative and effective strategies used by one or a few teachers in one discipline are disseminated and discussed in the Expo, raising interests of teachers in other disciplines and generating new ideas for further enhancement, thereby gradually improving teaching and learning across the entire campus over time. I am most delighted to see that the Expo has effectively engaged many teachers and the number of participants has grown considerably over the years.

As stated in CUHK's Academic Development Proposal (ADP) for 2016-2019, institutional advancement in eLearning is one of the University's major directions for development, and the construction of micro-modules to support flipped classrooms will be widely promoted. I am pleased to see that "micro-module and flipped classroom" is the special theme for this year's Expo during which our pioneer teachers will share their experiences. I am also glad to see the "student voice" session again in which students will share their views on micro-module and flipped classroom. I would like to express my gratitude to these students, especially for the time and effort they put into the preparatory work during the period of their final examinations.

I very much hope that the Expo will bring new insights to all participants. I look forward to sharing with and learning from you in Expo 2015!





## Introduction

### Objective

This is the ninth year we have organised the annual event since 2007 which allows teachers to share their educational experience and insights.

The 'Teaching and Learning Innovation Expo 2015' has five main features: a formal opening session, keynote sessions, talks, poster presentations and a one-week poster exhibition as a follow-up.

### Organisers

eLearning Service @ CU

<http://www.cuhk.edu.hk/eLearning/>

A joint project of ITSC and CLEAR

Information Technology Services Centre (ITSC)	Centre for Learning Enhancement And Research (CLEAR)
Sally Wong	Ivy Lu
Judy Lo	Nicole Yang
Eva Cheung	Prof. Paul Lam
Carol Chiu	Prof. Cecilia Chun





## Programme

### Summary

The Expo is composed of five main parts:

1. An opening session (10 minutes) and a welcome speech (5 minutes);
2. Two keynote sessions (around 45 minutes each);
3. Talks organised in parallel sessions (25-minute slots starting 11:35 am to 3:55 pm). The talks include information talks on defined themes and formal presentations by teachers on their work;
4. An assembly of poster presentations (12:00 pm – 1:30 pm) where we hope our participants enjoy a light lunch as they learn about new ideas and discuss with colleagues;
5. The posters will be kept in Lee Shau Kee Building for poster exhibition for a week until 23 December.

### Timetable of the Main Events:

Time	Programme				
8:45am – 9:15am	Registration				
9:20am – 9:30am	Formal opening by <b>Professor Joseph Jao-yiu SUNG</b>				
9:30am – 9:35am	Welcome Speech by <b>Professor Cecilia Ka Wai CHUN</b>				
9:35am – 10:20am	Keynote address by <b>Professor Thomas Kwok-keung AU</b>				
10:20am – 10:40am	Coffee break <sup>2</sup>				
10:40am – 11:30am	Student Voice by <b>CUHK students</b>				
<b>Ta Parallel Sessions</b>					
11:35am – 12:00pm	LSK 201	LSK 202	LSK 204	LSK 206	LSK 208
	<b>Ta1</b>	<b>Ta2</b>	<b>Ta3</b>	<b>Ta4</b>	<b>Ta5</b>
12:00pm – 1:30pm	Lunch and interactive poster presentation <sup>1,2</sup>				
<b>Tp Parallel sessions</b>					
	LSK 201	LSK 202	LSK 204	LSK 206	
1:30pm – 1:55pm	Micro-module Courseware development	<b>Tp1</b>	<b>Tp6</b>	<b>Tp11</b>	<b>Tp16</b>
2:00pm – 2:25pm		<b>Tp2</b>	<b>Tp7</b>	<b>Tp12</b>	<b>Tp17</b>
2:30pm – 2:55pm		<b>Tp3</b>	<b>Tp8</b>	<b>Tp13</b>	<b>Tp18</b>
3:00pm – 3:25pm		<b>Tp4</b>	<b>Tp9</b>	<b>Tp14</b>	<b>Tp19</b>
3:30pm – 3:55pm		<b>Tp5</b>	<b>Tp10</b>	<b>Tp15 (Roundtable)</b>	<b>Tp20</b>
4:00pm – 4:30pm	Refreshment + Poster awards + Closing <sup>2</sup>				

Remarks: 1. Light lunch will be provided. 2. For environmentally friendly reasons, please bring along your own cup for drinks.

### Judges of the poster award:

- Mr. Ian BROWN** Senior Educational Development Officer,  
Educational Development Centre,  
The Hong Kong Polytechnic University
- Dr. Beatrice CHU** Head of Professional Development Team,  
Center for Enhanced Learning & Teaching,  
Hong Kong University of Science and Technology
- Dr. Theresa KWONG** Assistant Director,  
Centre for Holistic Teaching and Learning,  
Hong Kong Baptist University





## List of Talks

Session	Room (LSK)	Presenter(s)	Presentation Title
Ta1	201	Prof. Lutz-Christian WOLFF Jenny CHAN	Flipped Classrooms – An Educational Silver Bullet?
Ta2	202	Dr. Vivian Yin Ha CHAN	潛行校園的書寫力量
Ta3	204	Prof. Jane JACKSON	Enhancing Student Learning Abroad: A Research-based, Online General Education Course
Ta4	206	Prof. Helene Hoi Lam FUNG Dr. Fan ZHANG	Internationalization: How Social Exchanges with Students from Same or Different Backgrounds Influence Well-being
Ta5	208	Ivy Man Ho WONG Prof. Helen Yun ZHAO	Applying the Competition Model and Cognitive Linguistics to the Instruction of English Prepositions: The English Preposition Tutor
Tp1	201	Prof. Kevin YIP	On Closing the Gap between the Expectation and the Reality in Learning
Tp2	201	Dr. Joyce IUN	Sharing My “Flipped Teaching” Experience
Tp3	201	Dr. Elaine NG Dr. Jose LAI	Teaching English through Music
Tp4	201	Dr. Kai Ming KIANG Dr. Andy Ka Leung NG Dr. Vivian Jun WU Dr. Derek Hang Cheong CHEUNG	Micro-module Courseware Development: Supplementing Non-science Students in Reading Science-related Classics
Tp5	201	Dr. Wai-tat WONG Prof. Czarina LEUNG Prof. Charles GOMERSALL Prof. Gavin JOYNT	E-Learning of Cardiopulmonary Resuscitation
Tp6	202	Prof. Michael LOWER	Blended Learning: Using Blackboard to Create a Community of Inquiry
Tp7	202	Dr. Yvonne LOONG	The Peer Mentoring Program: Facilitating Academic Support at College Level
Tp8	202	Dr. Isabel HWANG Dr. Florence TANG Prof. Michael TAM Prof. Xiao Qiang YAO Dr. Yan JIN Ray LEE	How a Simple Leap-motion Controller Can Help Students Interact with True Virtual Reality to Understand the Structures of Human Organs





Session	Room (LSK)	Presenter(s)	Presentation Title
Tp9	202	Dr. Wai Man SZETO Prof. Mei Yee LEUNG Anthony Hoi Wa CHENG	Peer Assisted Study Session (PASS) in the General Education Foundation Programme
Tp10	202	Prof. Mei Yee LEUNG	Understanding CUHK Freshmen: What a Comprehensive Entry Survey Can Tell?
Tp11	204	Dr. Brandon KING Prof. Jan KIELY	E-Learning Imperial Chinese History
Tp12	204	Prof. Irwin KING Raymond YUEN William LEUNG	KEEP- The Powerful Education Cloud Infrastructure
Tp13	204	Prof. Pang Chui SHAW Prof. Siu Kai KONG Chi Fai LEUNG Pui Yin LAU	Videos and Interactive Questions for Learning Biochemistry: Feedback from a Focus Group
Tp14	204	Dr. Wai Ming HO Dr. Sing Ha FONG	DAIMON: A Reading-Companion Mobile App for In Dialogue with Humanity (version 2)
Tp15	204	Dr. Brian Christopher THOMPSON Prof. Peichi CHUNG Prof. Lynne NAKANO Prof. Sze Wing TANG	Roundtable Session on Undergraduate Research
Tp16	206	Dr. David L.K. CHOW Dr. Fred K.T. KU	Teaching and Learning Enhancement with Video Resources
Tp17	206	Dr. Tsz Ping LAM	Enhancement of Learning in an Orthopaedic Teaching Program with an Upgraded Student Learning Outcome Mapping Platform
Tp18	206	Prof. Benny Kok Wai LIM	Experiential Learning - "Umbrella Festival 2015" as a Case Study
Tp19	206	Prof. Enders Kwok Wai NG Prof. Paul Bo San LAI	Teaching Surgery Using CCTV - Beyond the Class Size Limit
Tp20	206	Dr. Paula HODGSON Mavis CHAN	MOOCs: Design for Learning



## Keynote Addresses

**Professor Thomas Kwok Keung AU***Awardee of University Education Award 2015**Deputy Chairman & Associate Professor, Department of Mathematics,**Associate Dean (Education), Faculty of Science,**Fellow, CW Chu College,**The Chinese University of Hong Kong***Topic:****Determination to Know; Engagement in Learning****Abstract:**

What do you expect when you see a mathematician working, or a mathematics student learning? You probably may imagine a lone person, sitting there, fixing the eyes on a particular spot on the ceiling, motionless for ten minutes; perhaps, writing on a piece of paper with illegible scripts of symbols. This picture is very different and even opposite to the image of a successful person in Hong Kong. How do we teach our students major in mathematics and at the same time meet the societal expectation?

It was once said by an award winning professor, “one is not born a good teacher, but becomes one.” To become one, it involves a process, an environment, and a great deal of determination. On the other hand, everybody is born a good learner from the days of infancy. But, it also takes a process, an environment, and persistence to be a better learner. We are going to share how the Department of Mathematics has created a process and a culture for undergraduate study, cultivated a tradition and a habit, foster an attitude among students so that students’ desire to learn is improved and learning engagement becomes natural.

**Biography:**

Professor Thomas Au grew up in Hong Kong and received his undergraduate education at the Chinese University of Hong Kong. After a short period of teaching career and receiving a diploma in education at the University of Hong Kong, he moved on to pursue an academic career. He obtained his PhD specialized in Topology under the direction of Michael Freedman, a Fields Medalist, at the University of California, San Diego.

Professor Au returned to his Alma Mater to develop his research and teaching profession in the Department of Mathematics. Gradually in years, he has engaged more into teaching development and administrative services of the department. He has contributed in revamping the curriculum of Mathematics major in 1994; and in recent years, he headed the transformation into 4-year system. He has initiated most extra or para-curricular learning opportunities of the department. Professor Au is also a leader in the highly reputed outreach programmes and activities for gifted mathematics students in Hong Kong. He has served in committees of Chief Executive’s Award for Teaching Excellence and Quality Education Fund. In 2011, he extended his contribution to outside the department by joining the Dean team of Science Faculty and also by being an initial Fellow of the CW Chu College.





## Keynote Addresses

### Student Voice

Ten students will explain how they perceive two recent trends in higher education: micro-module courseware development and implementation of flipped classroom approach in courses.

#### **Topic: Learning Experience in Micro-module**

Katherine LAI, Erica KUNG, Patricia WOO, Angela LI [Faculty of Medicine]

Serena YUE [Faculty of Science]

#### **Topic: Our Experience in Flipped Classroom**

Kuan-Chieh LEE, San Yi WONG, Kwok Wai LAU, Chun Yu WONG, Hsiu-Yuan YANG [Faculty of Business Administration]





## List of Presenters

Abstract #	Presenter	Unit	Title	Poster	Talk
1	Dr. Kai Ming KIANG Dr. Andy Ka Leung NG Dr. Vivian Jun WU Dr. Derek Hang Cheong CHEUNG	Office of University General Education	Micro-module Courseware Development: Supplementing Non- science Students in Reading Science-related Classics	P1	Tp4
2	Prof. Kwok Chi LAU <sup>1</sup> Dr. Kenneth Ming LI <sup>2</sup> Dr. Shelly Liang LIAO <sup>3</sup>	<sup>1</sup> Department of Curriculum and Instruction  <sup>2</sup> Office of University General Education  <sup>3</sup> Baldwin Research Centre for General Education	Contextual Survey of Students' Understanding of the Nature of Science	P2	-
3	Dr. Wai Yin CHOW	Department of Cultural and Religious Studies	E-Learning Approach to Peace Education	P3	-
4	Dr. Wai-tat WONG Prof. Czarina LEUNG Prof. Charles GOMERSALL Prof. Gavin JOYNT	Department of Anaesthesia and Intensive Care	E-Learning of Cardiopulmonary Resuscitation	-	Tp5
5	Prof. Kevin YIP	Department of Computer Science and Engineering	On Closing the Gap between the Expectation and the Reality in Learning	-	Tp1
6	Dr. Elean LEUNG P. Y. YUEN Dr. S. K. NG T. M. TANG Pedro C. L. LI	Physical Education Unit	Micro-modules for Students' Self- learning and Teachers' Internal Training in PE Programmes	P4	-
7	Dr. Elaine NG Dr. Jose LAI	English Language Teaching Unit	Teaching English through Music	-	Tp3
8	Dr. Joyce IUN	Department of Management	Sharing My "Flipped Teaching" Experience	-	Tp2
9	Dr. Yu San CHEUNG Dr. George Fai WONG	Department of Chemistry	Teaching Chemical Laboratory Safety Using a "Flipped Classroom" Approach	P5	-





## List of Presenters

Abstract #	Presenter	Unit	Title	Poster	Talk
10	Prof. Paul SZE <sup>1</sup> Prof. Morris JONG <sup>1</sup> Eric LUK <sup>2</sup> Dr. Tom CHAN <sup>1</sup> Allen HO <sup>3</sup>	<sup>1</sup> Department of Curriculum and Instruction <sup>2</sup> Centre for the Advancement of Information Technology in Education <sup>3</sup> English Language Teaching Unit	Flipped Teaching for Excellence in Methodology Training for Teachers of English in Primary and Secondary Schools	P6	-
11	Prof. Lutz-Christian WOLFF Jenny CHAN	Faculty of Law	Flipped Classrooms – An Educational Silver Bullet?	-	Ta1
12	Prof. Paul LAM Ivy LU Nicole YANG	Centre for Learning Enhancement And Research	Innovative Teaching: the Flipped Classroom Community at CUHK	P7	-
13	Dr. Yihong JIANG Prof. Christoph H. STEINHARDT	Centre for China Studies	Teaching Social Science Subjects in Interdisciplinary Programmes: Some Experiments with Flipped Teaching	P8	-
14	Dr. Derek Hang Cheong CHEUNG Dr. Sandy Wan Heng HOI Dr. Andy Ka Leung NG Dr. Kam Moon PANG Dr. Wing Hung WONG	Office of University General Education	An Upgraded Version of A Mobile Aid with New Features to Enhance Understanding of Core Texts	P9	-
15	Dr. Wai Ming HO Dr. Sing Ha FONG	Office of University General Education	DAIMON: A Reading-Companion Mobile App for In Dialogue with Humanity (version 2)	P10	Tp14
16	Dr. Isabel HWANG <sup>1</sup> Dr. Florence TANG <sup>1</sup> Prof. Michael TAM <sup>1</sup> Prof. Xiao Qiang YAO <sup>1</sup> Dr. Yan JIN <sup>2</sup> Mr. Ray LEE <sup>3</sup>	<sup>1</sup> School of Biomedical Sciences <sup>2</sup> Office of Educational Services <sup>3</sup> Information Technology Services Centre	How a Simple Leap-motion Controller Can Help Students Interact with True Virtual Reality to Understand the Structures of Human Organs	-	Tp8
17	Prof. Paul LAM Kevin WONG Cherry TSOI	Centre for Learning Enhancement And Research	Gamification of Classroom Activities – New uReply Module	P11	-





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Abstract #	Presenter	Unit	Title	Poster	Talk
18	Dr. Florence TANG <sup>1</sup> Ray LEE <sup>2</sup> Prof. Yuanan JIANG <sup>3</sup> Dr. Isabel HWANG <sup>1</sup> Prof. Kenneth LEE <sup>1</sup> Olivia NGAN <sup>4</sup>	<sup>1</sup> School of Biomedical Sciences <sup>2</sup> Information Technology Services Centre <sup>3</sup> School of Chinese Medicine <sup>4</sup> The Jockey Club School of Public Health	A Pilot Study of a Touchless Screen Control as a Dissection Guide for Anatomy Teaching (Di-Ana Teach)	P12	-
19	Dr. Florence TANG <sup>1</sup> Ray LEE <sup>2</sup> Prof. Kenneth LEE <sup>1</sup> Dr. Isabel HWANG <sup>1</sup> Dr. Yan JIN <sup>3</sup> Olivia NGAN <sup>4</sup>	<sup>1</sup> School of Biomedical Sciences <sup>2</sup> Information Technology Services Centre <sup>3</sup> Office of Educational Services <sup>4</sup> The Jockey Club School of Public Health	A Novel E-learning Courseware in a Mobile App for Studying Histology: Blended Learning in the Faculty of Medicine (Hi-Med App)	P13	-
20	Judy LO Eva CHEUNG Daisy CHEN	Information Technology Services Centre	eLearning@CUHK	P14	-
21	Eva CHEUNG Prinpron LAU	Information Technology Services Centre	Tips for Assessing Student Learning Using CU eLearning System	P15	-
22	Prof. Raymond YEUNG <sup>1</sup> Prof. Wai Yin POON <sup>2</sup> Carol CHIU <sup>3</sup> Taylor TANG <sup>3</sup> Daisy CHEN <sup>3</sup> Judy LO <sup>3</sup>	<sup>1</sup> Department of Information Engineering <sup>2</sup> Department of Statistics <sup>3</sup> Information Technology Services Centre	Create Courseware for Enhancing Teaching and Learning	P16	-
23	Dr. Rebecca LEE <sup>1</sup> Daisy CHEN <sup>2</sup> Bernard Yat Nam NG	<sup>1</sup> School of Biomedical Sciences, <sup>2</sup> Information Technology Services Centre	Micro-module Production: Annotated Videos and Student-made Animation	P17	-
24	Prof. Liwen JIANG <sup>1</sup> Hazel Wing Sum SIN Dr. Hoi Ling CHAN	<sup>1</sup> School of Life Sciences	Developing Video Learning Modules for Teaching Cell Biology	P18	-
25	Dr. David L.K. CHOW Dr. Fred K.T. KU	Department of Decision Sciences and Managerial Economics	Teaching and Learning Enhancement with Video Resources	-	Tp16
26	Prof. Enders Kwok Wai NG Prof. Paul Bo San LAI	Department of Surgery	Teaching Surgery Using CCTV– Beyond the Class Size Limit	-	Tp19
27	Prof. Irwin KING Raymond YUEN William LEUNG	Department of Computer Science and Engineering and KEEP Project	KEEP- The Powerful Education Cloud Infrastructure	P19	Tp12





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Abstract #	Presenter	Unit	Title	Poster	Talk
28	Dr. David Tai Wai LAU Dr. Cheung Ming CHOW Dr. Kwok Cheong CHUNG Tin Hang WONG Siu Kwan WONG Yiu Man CHAN	School of Life Sciences	PlantWalk@CUHK, A Smart Phone-guided Self-learning Walk	P20	-
29	Dr. Cheung Ming CHOW Dr. Tai Wai LAU Dr. Kwok Cheong CHUNG Tin Hang WONG	School of Life Sciences	Smart-phone Compatible Blended Learning for Biodiversity	P21	-
30	Prof. Tsz Ping LAM	Department of Orthopaedics and Traumatology	Enhancement of Learning in an Orthopaedic Teaching Program with an Upgraded Student Learning Outcome Mapping Platform	P22	Tp17
31	Prof. Pang Chui SHAW Prof. Siu Kai KONG Chi Fai LEUNG Pui Yin LAU	School of Life Sciences	Videos and Interactive Questions for Learning Biochemistry: Feedback from a Focus Group	P23	Tp13
32	Dr. Felix Lip Yan CHAO Dr. Yin ha CHAN Dr. Wing Kin LEE	Independent Learning Centre	Online Learning Platform of University Chinese Grammar in Use(TDG) - The New Development	P24	-
33	Dr. Hung Kui NGAI	School of Life Sciences	Development of Online Tools for the Teaching and Learning of Biological Pathways	P25	-
34	Dr. Kendrew MAK Dr. Wing Fat CHAN Dr. Yu San CHEUNG	Department of Chemistry	Class Response Application for Undergraduate Laboratory Courses	P26	-
35	Dr. Paula HODGSON Mavis CHAN	Centre for Learning Enhancement And Research	MOOCs: Design for Learning	-	Tp20
36	Prof. Michael LOWER	Faculty of Law	Blended Learning: Using Blackboard to Create a Community of Inquiry	-	Tp6
37	Prof. Paul LAM Nelson SIU	Centre for Learning Enhancement And Research	A Joint E-learning / MOOC Platform of Hong Kong's Tertiary Education Sector	P27	-





## List of Presenters

Abstract #	Presenter	Unit	Title	Poster	Talk
38	Prof. Wai Yin POON <sup>1</sup> Prof. Thomas Kwok Keung AU <sup>2</sup> Prof. Ming Chung CHU <sup>3</sup> Prof. Liwen JIANG <sup>4</sup> Dr. Kendrew Kin Wah MAK <sup>5</sup> Prof. Pang Chui SHAW <sup>4</sup> Prof. Teng Fong WONG <sup>6</sup> & 24 more teachers as Co-supervisors / Co-investigators	<sup>1</sup> Department of Statistics <sup>2</sup> Department of Mathematics <sup>3</sup> Department of Physics <sup>4</sup> School of Life Sciences <sup>5</sup> Department of Chemistry <sup>6</sup> Earth System Science Programme	Establishment of New Paradigm with Feasible Models in Teaching and Learning Science for Problem Solving and Future Development	P28	-
39	Prof. King-ming CHAN <sup>1</sup> Dr. Jacky F.C. LOO <sup>1</sup> Prof. Ting Fung CHAN <sup>1</sup> Prof. Siu Kai KONG <sup>1</sup> Prof. Kevin K.Y. YIP <sup>2</sup> Prof. Pun To YUNG <sup>3</sup>	<sup>1</sup> School of Life Sciences <sup>2</sup> Department of Computer Science and Engineering <sup>3</sup> Department of Biomedical Engineering	iGEM: A Success Story of Our Students	P29	-
40	Dr. Vivian Yin Ha CHAN	Independent Learning Centre	潛行校園的書寫力量	P30	Ta2
41	Prof. Benny Kok Wai LIM	Department of Cultural and Religious Studies	Experiential Learning - "Umbrella Festival 2015" as a Case Study	-	Tp18
42	Prof. Jane JACKSON	Department of English	Enhancing Student Learning Abroad: A Research-based, Online General Education Course	P31	Ta3
43	Dr. Yiu Bun CHUNG <sup>1</sup> Chiu Woo CHOW <sup>2</sup> Hiu Hin TSE <sup>3</sup> Yat Cheong LEUNG <sup>4</sup>	<sup>1</sup> Centre for Advancement in Inclusive and Special Education, Faculty of Education (HKU) <sup>2</sup> Department of Curriculum & Instruction (HKIEd) <sup>3</sup> Institute of Future Cities (CUHK) <sup>4</sup> SKH Wing Chun Primary School	Outdoor Learning Opportunities for ALL: A Service Learning Project at CUHK	P32	-
44	Prof. Helene Hoi Lam FUNG Dr. Fan ZHANG	Department of Psychology	Internationalization: How Social Exchanges with Students from Same or Different Backgrounds Influence Well-being	P33	Ta4
45	Dr. Almaz Man Kuen CHAK	Department of Management	The Relationships among Overseas Exchanges / Internships, Workplace Location Choices and Boundaryless Career Orientation	P34	-





## List of Presenters

Abstract #	Presenter	Unit	Title	Poster	Talk
46	Prof. Mei Yee LEUNG	Office of University General Education	Understanding CUHK Freshmen: What a Comprehensive Entry Survey Can Tell?	-	Tp10
47	Dr. Sandy Wan Heng HOI Dr. Wing Hung WONG	Office of University General Education	Changes in Students' Science Anxiety in In Dialogue with Nature	P35	-
48	Dr. Kevin Ka Wai IP Dr. Liang LIAO	Office of University General Education	Students' Responses to Ethical Disagreements and Their Impact on Learning	P36	-
49	Dr. Sally Wai Yan WAN Ylena Yan WONG Vincent CHEUNG Donix Kwan Ho CHAN Harold LO David HO	Department of Curriculum and Instruction	Student Voice: Choice as a Way of Differentiated Instruction	P37	-
50	Carmen LAU Nicole YANG Cindi TANG Flora LEUNG Ivy LU Irene LEUNG	Centre for Learning Enhancement And Research	《學風》與《尋·思》	P38	-
51	Dr. Wai Yin NG Sin Yee TANG Flora Man Ki LEUNG Nicole Yang YANG	Centre for Learning Enhancement And Research	Misbehaving Students? Strategic Learning Behaviours among Students	P39	-
52	Dr. Brandon KING Prof. Jan KIELY	Centre for China Studies	E-Learning Imperial Chinese History	-	Tp11
53	Prof. Helen MENG	Department of Systems Engineering and Engineering Management	Text-to-Audiovisual Speech Synthesis for Computer-Aided Pronunciation Training	P40	-
54	Michael CHUNG <sup>1</sup> Prof. Yuan An JIANG <sup>1</sup> Simon HO <sup>2</sup> Lilian LO <sup>1</sup> Wendy FAN <sup>1</sup>	<sup>1</sup> School of Chinese Medicine <sup>2</sup> Shaw College	"Meridian Illustrator" – The Interactive Acupuncture Textbook	P41	-
55	Ivy Man Ho WONG Prof. Helen Yun ZHAO	Department of English	Applying the Competition Model and Cognitive Linguistics to the Instruction of English Prepositions: The English Preposition Tutor	-	Ta5





## List of Presenters

Abstract #	Presenter	Unit	Title	Poster	Talk
56	Prof. Leo Ou-fan LEE <sup>1</sup> Florian VERBEEK <sup>2</sup>	<sup>1</sup> Faculty of Arts <sup>2</sup> University of Hong Kong PhD Applicant	Developing and Testing Concept-Based Teaching: The Ultimate Common Core/General Education Learning Experience	P42	-
57	Dr. Wai Man SZETO Prof. Mei Yee LEUNG Anthony Hoi Wa CHENG	Office of University General Education	Peer Assisted Study Session (PASS) in the General Education Foundation Programme	P43	Tp9
58	Dr. Yvonne LOONG	Independent Learning Centre	The Peer Mentoring Program: Facilitating Academic Support at College Level	-	Tp7
59	Prof. Peichi CHUNG <sup>2</sup> Prof. Lynne NAKANO <sup>3</sup> Prof. Sze Wing TANG <sup>4</sup> Dr. Brian Christopher THOMPSON <sup>1</sup> (facilitator) <sup>4</sup>	<sup>1</sup> Department of Cultural and Religious Studies <sup>2</sup> Department of Japanese Studies <sup>3</sup> Department of Chinese Language and Literature <sup>4</sup> Department of Music	Roundtable Session on Undergraduate Research	-	Tp15
60	Fanny CHUNG	B.A. in Cultural Management Programme Faculty of Arts	The Impacts of Creative Music Pedagogy on Hong Kong Pre-school Teachers' Self-Efficacy in Teaching Music	P44	-
61	Jack LEE Eddie KWOK Jo WONG	Centre for Learning Enhancement And Research	Introduction of the New eLearning Services Centre – ELITE	P45	-
62	Prof. S.M. KUMTA Dr. Yan JIN Alex YUNG	Office of Medical Education, Faculty of Medicine	Constructing Micro- modules for eLearning	P46	-
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## Abstracts

### 1. Micro-module Courseware Development: Supplementing Non-science Students in Reading Science-related Classics (P1, Tp4)

*Dr. Kai Ming KIANG, Dr. Andy Ka Leung NG, Dr. Vivian Jun WU &  
Dr. Derek Hang Cheong CHEUNG  
Office of University General Education*

“In Dialogue with Nature” is a compulsory course for all students at the Chinese University of Hong Kong, which involves them reading classic science-related texts. The course provides an opportunity for students to become familiar with the nature of science as well as to develop their critical thinking skills. As students are required to have an understanding of some basic scientific facts, those who lack this knowledge can run into difficulties on the course. To help these non-science students, three sets of micro-modules, corresponding to Physics, Biology and Chemistry, have been developed as an online platform. Each set of micro-modules includes a series of lectures recorded in English, Cantonese and Mandarin, with the corresponding lecture notes and interactive online quizzes for students to study these topics when they want and at their own pace. As a result of these micro-modules, non-science students now achieve better grades and fulfil more of the course objectives than they did previously.

### 2. Contextual Survey of Students’ Understanding of the Nature of Science (P2)

*Prof. Kwok Chi LAU<sup>1</sup>, Dr. Kenneth Ming LI<sup>2</sup> & Dr. Shelly Liang LIAO<sup>3</sup>  
<sup>1</sup>Department of Curriculum and Instruction, <sup>2</sup>Office of University General Education,  
<sup>3</sup>Baldwin Research Centre for General Education*

Understanding the nature of science (NOS) is usually surveyed with general description. Studies show, however, that a different understanding of NOS might be obtained under other contextual situations. In this study, a new contextual survey instrument, based on the discovery of the structure of DNA, was designed to assess the students’ understanding of the NOS. The test was first validated through interviews with several students, and then in 2014–2015 it was administered to 134 students in one class of the General Education Foundation (GEF) course ‘In Dialogue with Nature’. The scores were then correlated with the background of each student (i.e., their gender and religion, and whether they had taken science at a senior level in secondary school or not), to test the discriminant validity of the instrument. Using factor analysis, six NOS sub-scales were developed from 16 Likert-scale items: creativity, collaboration, competition, scientific methods, tentativeness, and inference. A MANOVA was then used to compare the test scores between students with different backgrounds. Students having taken science subjects in senior forms at school had a significantly better understanding of the NOS (in particular the implications of science and the scientific method) than those without. When comparing students who were Christian with those without any religion, the Christians’ scores were significantly higher with regards to the scientific method and creativity. Males and females did not differ significantly in the overall test scores and on any of the sub-scales. The contextual survey instrument was found to be valid and reliable and the study provided valuable information to the instructors of the GEF course.





### 3. E-Learning Approach to Peace Education (P3)

*Dr. Wai Yin CHOW*

*Department of Cultural and Religious Studies*

In this project we produced three short multimedia micro-lectures (of around 13 mins each), which were used as part of a flipped classroom in the “Introduction to Peace Studies” course to facilitate students in understanding key concepts before the class. The micro-lectures included discussion sessions based around the following questions: (1) Is religion a major cause of conflict in traditional and contemporary societies? (2) Can religion be a source for peace? and (3) How spiritually-based practices inhibited in traditional religions are creatively used for peace-building in contemporary society?

The effectiveness of the flipped classroom strategies was evaluated by short quizzes set in the micro-modules, as well as by both quantitative and qualitative surveys. Based on the quiz scores shown on the Blackboard Learn system, we found that the participation rate of students was high, and their quiz results were satisfactory. In their feedback, students indicated that they could well understand the concepts presented in the micro-lecture videos. In addition, quantitative data showed that the flipped classroom essentially reversed traditional teaching such that instead of lectures occurring in the classroom and assignments being done at home, learning took place at home, and independent learners were thus created.

However, theme analysis on the qualitative data collected indicated that some of the students did not enjoy the new learning model. For example, when reviewing lecture content at home, students could not get immediate answers to their questions as they would in the traditional classroom setting. In addition, high-quality discussion activities could not be maintained if the students came to the class unprepared.

Based on the student responses collected, we concluded that learner-content interaction, learner-teacher interaction, and learner-learner interaction were all important elements in establishing effective learning with a flipped classroom.

### 4. E-Learning of Cardiopulmonary Resuscitation (Tp5)

*Dr. Wai-tat WONG, Prof. Czarina LEUNG,  
Prof. Charles GOMERSAL & Prof. Gavin JOYNT  
Department of Anaesthesia and Intensive Care*

#### Background:

Management of cardiac arrest is a complex skill that all medical students are expected to master. It involves physical, leadership, teamwork and intellectual skills, which need to be brought together in a situation of extreme urgency. Five web-based micro-modules targeting key areas of acute resuscitation were developed to maximize students' preparedness and competency so that face-to-face teaching could focus on aspects of learning requiring physical practice or the integration of all skills.





### Electronic Learning Strategies:

The defibrillation micro-module includes a short video demonstrating safe defibrillation.

The chest compression micro-module includes an animation demonstrating the correct chest compression technique and highlights common pitfalls. In addition, a smartphone application provides self-assessment of compression frequency and depth.

The airway management micro-module includes an animation demonstrating the correct technique in airway management.

The coordination micro-module includes an animation of in-hospital cardiac arrest scenarios demonstrating all the essential coordinating skills in resuscitation. It includes a videogame, which assesses the students' coordination capabilities.

The teamwork micro-module includes a video of simulated cardiac arrest and demonstrates the importance of teamwork and communication in resuscitation.

### Evaluation:

A web log and student surveys will be used to evaluate the effectiveness of the micro-modules. A prospective study will also be conducted to specifically evaluate the chest compression ability of students who have used the smartphone application for chest compression training.

## **5. On Closing the Gap between the Expectation and the Reality in Learning (Tp1)**

*Prof. Kevin YIP*

*Department of Computer Science and Engineering*

In my teaching, I frequently encounter the situation that what I expect the students to understand is quite different from what they actually understand. The situation is aggravated by the fact that when a student does not understand something, he/she probably also does not know exactly what he/she does not understand. Therefore, simply giving them a chance to ask questions does not usually help. In this talk, I will share my experiences in preventing, or detecting and tackling, this disparity between my expectations and the actual understanding of the students. In particular, I will talk about the use of real-time electronic questioning systems and the development of micro-learning module videos. While the methods I utilize when attempting to close the learning gap are fairly standard, the use of information technology provides some advantages that in my experience make these methods more effective.





## 6. Micro-modules for Students' Self-learning and Teachers' Internal Training in PE Programmes (P4)

*Dr. Elean LEUNG, P.Y. YUEN, Dr. S. K. NG, T.M. TANG & Pedro C. L. LI  
Physical Education Unit*

### Purpose:

To enhance teaching and learning of physical education (PE) skill courses through the innovative use of self-developed on-line micro-module courseware.

### Methods:

A project comprised of 3 parts was launched in 2014. In part 1, video links describing the skills required for different sports were selected and uploaded to the intranet of the PE Unit. Teachers play videos during lessons or post links to videos with descriptions and explanations onto Blackboard Learn for students' self-learning. Part 2 is comprised of videos, provided on the PE Unit webpage, which demonstrate different exam skills. These videos help students identify clearer learning objectives and encourage them to emulate the various good sports skills shown. Part 3 focuses on internal lecturer training and is comprised of videos taken during various staff development workshops and peer teaching observations, which are uploaded and shared among the teachers.

### Results:

The development and production phase of the micro-modules took place in 2014-2015, and 2015-2016 is now a period of application and evaluation. We are currently evaluating if teaching and learning are enhanced with the application of the micro-module courseware by distributing self-evaluation questionnaires, and conducting focus group interviews with the students and teachers.

One micro-module (basketball) was trialled during Term 1 of 2014-2015. Students conducted self-learning and then provided us with some preliminary feedback. Both the teachers and students had positive comments regarding the basketball micro-module and reflected that it facilitated their teaching and learning.

### Discussion and Conclusions:

With the innovative use of on-line micro-module courseware and further promotion of eLearning, the teaching and learning of PE skill courses will be significantly enhanced. By using the Internet, a large population can be reached without the usual constraints on physical space. As Internet access expands and the technical components of this technology improve, eLearning will become increasingly important in teaching and learning.

### Acknowledgements:

This project was funded by the Micro-Module Courseware Development 2014 of the Chinese University of Hong Kong.





### 7. Teaching English through Music (Tp3)

*Dr. Elaine NG & Dr. Jose LAI*  
*English Language Teaching Unit*

In this presentation, we will discuss the rationale and creation of methods to teach English through Music. We utilize a series of micro-modules that are designed to support flipped classroom learning through the use of a blended learning approach, and which complement the Independent Learning Module in various ELTU classes at the CUHK. There are three parts to this presentation. In part one, we will discuss the rationale of teaching English through Music. Overall, this project aims to engage students with different texts in order to develop their listening comprehension skills, to expand their subject-specific vocabulary, and to enhance their phonological awareness. In part two, we will discuss the creation and structure of the micro-modules, each of which has a mini-lecture and a series of online and in-class activities. The final part of the presentation will involve an actual demonstration on the CU eLearning System (Blackboard Learn) to demonstrate how students can learn English through Music both in and out of the classroom.

### 8. Sharing My “Flipped Teaching” Experience (Tp2)

*Dr. Joyce IUN*  
*Department of Management*

In December 2014, a grant was received from MMCD (Micro-Module Courseware Development) to develop an e-learning project titled, “Flipping an Introductory Management Course.” This project aimed to flip a portion of the lecturing materials (in nine modules) onto the CU eLearning system (Blackboard Learn) and promote the e-learning activities of students taking a fundamental Management course.

By March 2015, five modules were completed and pilots were tested by 37 students. Overall, people responded positively to the e-learning materials. In particular, they liked the video links embedded at the end of each module, and they found the modules to be more useful for reviewing than pre-viewing.

By August, 2015, all nine modules were completed satisfactorily. These nine modules contain a combination of: mini-lectures of 5-10 minutes in length; annotated PowerPoint slides; discussion questions; YouTube video links; selected documentary video files, e.g., ‘60 minutes’; and self-produced video cases.

With the help of a Research Assistant to tackle the technological issues, the preparation of the annotated slides and embedded video links was relatively smooth for the nine modules. The more difficult parts remain as ‘course reconstruction’ to ensure the proactive learning of students in addition to their engagement both prior to and during the class hours.





## 9. Teaching Chemical Laboratory Safety Using a “Flipped Classroom” Approach (P5)

*Dr. Yu San CHEUNG & Dr. George Fai WONG  
Department of Chemistry*

A series of ‘Flipped Classroom’ micro-modules will be used in addition to the existing CHEM 2408 and CHEM 2850 laboratory sessions, which are the first courses to be taken by Chemistry-major students. These micro-modules are beneficial to students in these two courses as well as in the courses taken subsequently. Students will watch video clips at home, after which discussions and/or quizzes will be carried out. Micro-modules on the following topics will be used: personal protective equipment; corrosive chemicals; flammable chemicals; toxic chemicals; chemical information; systems under pressure; extreme temperatures; and electrical hazards.

## 10. Flipped Teaching for Excellence in Methodology Training for Teachers of English in Primary and Secondary Schools (P6)

*Prof. Paul SZE<sup>1</sup>, Prof. Morris JONG<sup>1</sup>, Eric LUK<sup>2</sup>, Dr. Tom CHAN<sup>1</sup> & Allen HO<sup>3</sup>  
<sup>1</sup>Department of Curriculum and Instruction,  
<sup>2</sup>Centre for the Advancement of Information Technology in Education,  
<sup>3</sup>English Language Teaching Unit*

The flipped classroom model in teaching and learning has received increasing attention in recent years. The project on which this poster presentation is based, is an attempt to implement the Flipped Classroom model in the delivery of a SCT (Subject Curriculum and Teaching) course as part of the Postgraduate Diploma in Education (Primary) programme. Eight micro-modules were produced, each covering one key topic in the course. For each micro-module, a pre-class video was produced, which presented the fundamental subject matter of the topic in question. A series of classroom activities was also designed, to follow up on each pre-class video. The classroom activities aimed to deepen the students’ understanding of the subject matter, and enable them to apply the knowledge and skills gained in planning for primary school teaching. This poster presentation provides: (a) the rationale for adopting the Flipped Classroom model for the course; (b) the design of the portal, which was created to present the eight micro-modules; (c) extracts from one of the micro-modules; and (d) a summary of the students’ responses from a questionnaire on the Flipped Classroom mode of learning.

## 11. Flipped Classrooms: An Educational Silver Bullet? (Ta1)

*Prof. Lutz-Christian WOLFF & Jenny CHAN  
Faculty of Law*

This presentation introduces the findings of a year-long Teaching Development Grant (TDG) project. Based on a comprehensive literature review, it discusses the pedagogical, technical and financial viability of the Flipped Classroom concept. More importantly, it reports on a case study conducted in Term II of the 2014/15 academic year during which time certain parts of a postgraduate law course were “flipped”. It shows that the development of Flipped Classrooms is surprisingly easy. However, the Flipped Classroom concept is not the “one and only” solution for higher education pedagogy.





## 12. Innovative Teaching: the Flipped Classroom Community at CUHK (P7)

*Prof. Paul LAM, Ivy LU & Nicole YANG  
Centre for Learning Enhancement And Research*

Setting up an “Innovative Teachers’ Community” is a component of a Teaching Development Grant-funded project on the “Community of Practice (CoP)”. This community is comprised of teachers with similar interests in adopting innovative teaching and learning practices at The Chinese University of Hong Kong. The Innovative Teaching website (<http://flipped.mcuhk.com>) features a sub-group of the CUHK community who already focus on using flipped classroom methods, and it serves to disseminate their practices and experiences to the wider CUHK audience as well as to the public. In this poster, we present the objectives, practices, and preliminary findings of the CUHK teachers who use the flipped classroom approach in their teaching.

## 13. Teaching Social Science Subjects in Interdisciplinary Programmes: Some Experiments with Flipped Teaching (P8)

*Dr. Yihong JIANG & Prof. Christoph H. STEINHARDT  
Centre for China Studies*

In this poster presentation, we would like to share with colleagues our on-going experiments in flipped teaching, which we started in 2013. Broadly speaking, there are two shared learning objectives that social science courses aim to achieve: 1) to foster students’ understanding of a particular subject area; and 2) to enhance their capacity in critical and logical thinking, presentation, articulation, academic writing and team work. As many studies have identified, lectures are more effective for achieving the first objective, but less effective for the second. Therefore, we have transformed some of our classes from a lecture-type forum into an interactive learning environment. So far, we have adopted a number of teaching and learning activities, including: class debate, group discussion, presentation, role play, field excursion and guest sharing. The results of the course evaluation demonstrate that these interactive learning activities have not only enhanced the students’ interest in the subject matter, but also helped them to learn and practice the transferrable skills that social science courses aim to achieve. With this encouraging feedback, we plan to expand the flipped component of our teaching in the future.

## 14. An Upgraded Version of A Mobile Aid with New Features to Enhance Understanding of Core Texts (P9)

*Dr. Derek Hang Cheong CHEUNG, Dr. Sandy Wan Heng HOI,  
Dr. Andy Ka Leung NG, Dr. Kam Moon PANG & Dr. Wing Hung WONG  
Office of University General Education*

“UGFN 1000 In Dialogue with Nature” is a compulsory general education foundation course for undergraduates at the CUHK, which requires the students to read selected classic science texts. However, students who have no prior knowledge of even rudimentary science always encounter difficulties in understanding these texts on their own. Therefore, in response to the students’ needs, an interactive mobile app, DiaNable, was launched in 2014. This app consists of text-related questions and serves as a reading companion and self-evaluation tool. It provides instant feedback to students and in this way, guides them in understanding intricate concepts from the science texts. In September 2015,





mini-dictionaries with audio pronunciations of names and terms in their original language were also incorporated into DiaNable (Version: Release 2.0). This new function makes reading more convenient and stimulates the students' interest further. As a whole, DiaNable helps students to understand the ideas in the texts they read, which means that they can express their opinions more confidently and effectively during the in-class discussion. The statistics show a high rate of usage and a significantly improved performance in written assignments. In addition, focus group interviews reflect that with DiaNable, students are more confident in answering questions about the nature of science.

### 15. DAIMON: A Reading-Companion Mobile App for In Dialogue with Humanity (version 2) (P10, Tp14)

*Dr. Wai Ming HO & Dr. Sing Ha FONG  
Office of University General Education*

The core-text course, In Dialogue with Humanity, is a required course under CUHK's General Education Foundation Program, which aims to inspire student reflection on questions concerning personal life and society, as well as to encourage multiple perspectives with regards to such reflection. Students are required to read and discuss one classic text per week in a semester spanning 12-14 weeks. Here, we introduce DAIMON, a mobile app that was developed to help students tackle the weekly reading assignments with confidence. Interactive multiple-choice questions at three levels of difficulty were also designed for each of the course's assigned texts (four are available in this phase). The app can be used as a reading companion, with check-point questions to monitor the students' reading progress, or as a self-assessment exercise to conclude a reading. User statistics and focus group interviews from the trial period show a high user rate and positive feedback on the app's usefulness in enhancing understanding of the assigned texts. In version 2, a mini-dictionary with an audio function is added.

### 16. How a Simple Leap-motion Controller Can Help Students Interact with True Virtual Reality to Understand the Structures of Human Organs (Tp8)

*Dr. Isabel HWANG<sup>1</sup>, Dr. Florence TANG<sup>1</sup>, Prof. Michael TAM<sup>1</sup>, Prof. Xiao Qiang YAO<sup>1</sup>,  
Dr. Yan JIN<sup>2</sup>, Ray LEE<sup>3</sup>*

*<sup>1</sup>School of Biomedical Sciences, <sup>2</sup>Office of Educational Services,  
<sup>3</sup>Information Technology Services Centre*

The virtual lung model is part of an e-learning courseware that was developed with support from the 2013-2014 Courseware Development Grant Scheme. The courseware features a three-dimensional (3D) model of a lung that can be manipulated virtually in space using a simple device called a Leap Motion Controller, which is connected to a personal computer. The Leap Motion Controller can detect finger and hand movements so that with just a few simple gestures (such as a flip of the finger or a wave of the hand), student users become immersed in a remarkable experience that makes them feel as though they are actually holding the 3D model of a lung. Students can also choose to view the model from different angles before they proceed to explore some of the important physiological mechanisms of the lung using the same courseware. The entire courseware will be integrated into the practical teaching section of the Physiology Course in the Chinese Medicine programme. Although our 3D lung model is the first Leap Motion-based system to be introduced into academia, there are certain technological challenges that still need to be overcome for both the developer and the users. However, preliminary data collected from a student group interview showed that the physiological structure of the lung is clearly illustrated by the Leap Motion Controller and the respiratory mechanism is clearly





interpreted by the courseware. Students liked the strong 3D effect of the freely oriented model of the lung provided by the Leap Motion system. Visual information embedded in the courseware also helped students to understand difficult physiological concepts such as the interchange of pressure terms during breathing. All of the students interviewed would like the Leap Motion system to be used in other course(s) in order to support a more independent and personal learning experience.

### 17. Gamification of Classroom Activities – New uReply Module (P11)

*Prof. Paul LAM, Kevin WONG and Cherry TSOI  
Centre for Learning Enhancement And Research*

u Reply version 4 was launched in September 2015 with new ready-made game sequences that turn the already interactive classroom Q&As into even more engaging game-like and competitive activities. Five games are currently up and running: 'Speed Challenge'; 'Level Challenge'; 'Group Challenge'; 'Pick or Random'; and 'Hand-raising'. In the 'Speed Challenge' game, for example, the game sequence repackages each question into a competition for a speedy and correct reply. The students who get the most questions correct in the shortest time win the challenge. In our poster presentation, our goals and means of accomplishing each of these activities will be explained and demonstrated.

### 18. A Pilot Study of a Touchless Screen Control as a Dissection Guide for Anatomy Teaching (Di-Ana Teach) (P12)

*Dr. Florence TANG<sup>1</sup>, Ray LEE<sup>2</sup>, Prof. Yuanan JIANG<sup>3</sup>, Dr. Isabel HWANG<sup>1</sup>, Prof. Kenneth LEE<sup>1</sup> & Olivia NGAN<sup>4</sup>*

*<sup>1</sup>School of Biomedical Sciences, <sup>2</sup>Information Technology Services Centre,  
<sup>3</sup>School of Chinese Medicine, <sup>4</sup>The Jockey Club School of Public Health*

In this project, we have developed an anatomy teaching courseware named Di-Ana Teach. It serves as an electronic dissection guide that can be integrated with 'floating touch' screen technology through which students can control certain actions by hovering their finger up to 20 mm above the display without being required to touch it. With this distinctive feature, students can easily navigate the courseware material through touchless control during dissection practicals, and thus they enhance their learning experience in class.

The teaching content of Di-Ana Teach can be uploaded to The Chinese University of Hong Kong's eLearning System, where students can obtain the learning material easily before and after dissection for learning and revision purposes. It serves as a teaching tool that assists students in solving problems on their own.

Di-Ana Teach facilitates class activities while enhancing the self-learning experience. Touchless screen technology is a novel and essential learning tool for anatomy dissection, providing personalized teaching material that allows students to blend their learning techniques. More importantly, it gives our team the opportunity to explore different teaching media that enhance the teaching and learning experiences of teachers and students alike. In this pilot study, one topic in the dissection of the lower limb has been selected to evaluate the feasibility of expanding our teaching content in Di-Ana Teach.





### 19. A Novel E-learning Courseware in a Mobile App for Studying Histology: Blended Learning in the Faculty of Medicine (Hi-Med App) (P13)

*Dr. Florence TANG<sup>1</sup>, Ray LEE<sup>2</sup>, Prof. Kenneth LEE<sup>1</sup>,*

*Dr. Isabel HWANG<sup>1</sup>, Dr. Yan JIN<sup>3</sup> & Olivia NGAN<sup>4</sup>*

*<sup>1</sup>School of Biomedical Sciences, <sup>2</sup>Information Technology Services Centre,*

*<sup>3</sup>Office of Educational Services, <sup>4</sup>The Jockey Club School of Public Health*

At present, we have developed a novel and popular mobile learning (m-learning) platform, called Histology for Medical Students (i.e., Hi-Med App), as a pilot study to support histology learning, as part of the blended learning activities in the Faculty of Medicine. The Hi-Med App consists of in-house teaching materials, which are comprised of e-content, 2D and 3D animations, clinical significance topics and quizzes. Moreover, the Hi-Med App can be used in either iOS or Android devices and so it is readily accessible to the majority of medical students. The App allows students to access the learning content at any time and in any place. Also, with the integration of animation, students have a visual learning environment that stimulates and enhances their understanding of histology. More importantly, it allows students to self-evaluate their progress so that they can reflect on their understanding of each topic. Student feedback indicates that the Hi-Med App can improve the teaching quality of Histology.

In summary, m-learning can facilitate and stimulate the students' motivation towards studying, which is an intrinsic component of human behaviour.

### 20. eLearning@CUHK (P14)

*Judy LO, Eva CHEUNG & Daisy CHEN*

*Information Technology Services Centre*

Are you interested in learning more about the services, systems and tools, and resources we provide (<http://www.cuhk.edu.hk/eLearning>)? If you are then come and visit us, and give us your opinions and ideas about how we can better support your teaching, as well as help to enhance the student learning experience with you.

### 21. Tips for Assessing Student Learning Using CU eLearning System (P15)

*Eva CHEUNG & Prinpron LAU*

*Information Technology Services Centre*

CU eLearning System (Blackboard Learn) provides tools for tracking student engagement and performance. Records and feedback with student identification can be stored inside course sites and nicely presented; in the end, teachers may make use of the information for evaluating their own teaching, course design, etc. Some of the tools not only benefit teachers, but also students – they can check and self-regulate how they are doing in assessments, as well as the progress in their learning.

The objective of this poster presentation is to demonstrate how CU eLearning System can facilitate learning activities and keep track of student performance. The features introduced are as follows:





- (1) Gather feedback and check student understanding by delivering online surveys;
- (2) Provide grading criteria and comments to students using Rubrics;
- (3) Consolidate grades in Grade Centre to assess student learning outcome of different class activities;
- (4) Discover struggling students through Retention Center and Performance Dashboard in order to help them take immediate actions for improvement.

## 22. Create Courseware for Enhancing Teaching and Learning (P16)

*Prof. Raymond YEUNG<sup>1</sup>, Prof. Wai Yin POON<sup>2</sup>, Carol CHIU<sup>3</sup>, Taylor TANG<sup>3</sup>,  
Daisy CHEN<sup>3</sup> & Judy LO<sup>3</sup>*

*<sup>1</sup>Department of Information Engineering, <sup>2</sup>Department of Statistics,  
<sup>3</sup>Information Technology Services Centre*

The Information Technology Services Centre (ITSC) is helping with a Teaching Development Grant (TDG) project titled, "Development of a practical model to support teachers at CUHK to create courseware for enhancing teaching and learning". The project aims to develop a useful model for guiding teachers at CUHK through the courseware development cycle. It therefore provides teachers with the methodologies, technologies, pedagogies, tools and training required to allow them to quickly and conveniently develop micro-courseware modules for enriching the learning experience of their students. Come and have a look at our poster if you are interested in learning more about the project.

## 23. Micro-module Production: Annotated Videos and Student-made Animation (P17)

*Dr. Rebecca LEE<sup>1</sup>, Daisy CHEN<sup>2</sup> & Bernard Yat Nam NG*

*<sup>1</sup>School of Biomedical Sciences, <sup>2</sup>Information Technology Services Centre*

The use of videos and animations in teaching and learning is a common practice in education nowadays. This form of technology enables students to learn abstract concepts in an interactive way. In this project, two different approaches were used to facilitate students' knowledge integration processes and their understanding of complex concepts. Instead of video-taping the entire lecture, short annotated videos were produced describing some of the more abstract concepts of a subject. The videos were produced using real-time drawings, which were generated using Camtasia and a Wacom tablet. A student helper was invited to work with the teacher in order to integrate the physiological knowledge into a voice-over animation. By collaborating in this way, teachers were able to acquire a better understanding of the difficulties that the students might encounter. Consequently, this helped to facilitate the design of suitable teaching tools that were more specific to the students' needs. Tips for video production and the design of teacher-student team projects will be shared during our poster presentation.





## 24. Developing Video Learning Modules for Teaching Cell Biology (P18)

*Prof. Liwen JIANG, Hazel Wing Sum SIN & Dr. Hoi Ling CHAN  
Centre for Cell and Developmental Biology*

This project aims to develop tools (using various types of technology) to facilitate the teaching of Cell Biology. Collections of real-time images or movies of living cells in various model organisms (e.g., Arabidopsis and mouse), acquired from a range of different research programs, have been edited and organized into self-explanatory teaching materials to clarify the most up-to-date Cell Biology techniques and concepts.

## 25. Teaching and Learning Enhancement with Video Resources (Tp16)

*Dr. David L.K. CHOW & Dr. Fred K.T. KU  
Department of Decision Sciences and Managerial Economics*

In 2012, we started working on an innovative online platform that hosts a set of teaching and learning (T&L) materials co-created by teachers and students. This platform is intended to:

1. Arouse the interest of students with videos produced by their peers,
2. Apply the concepts to real life,
3. Deepen students' understanding through discussion,
4. Provide T&L resources for the next cohort of students.

A focus-group interview was conducted in 2014 to gather feedback on the video-based activities. The student responses were very positive and highlighted the many benefits provided by the videos and other related resources. For instance:

- When students created their own videos, they often taught particular concepts in their own words (usually in an exaggerated style). They were refreshing, and inspired very meaningful discussions.
- The videos helped students find a link between theories and reality. Students said that they gained a more 'comprehensive' understanding of the theories and these could be related to real-world issues.
- A better understanding was achieved through discussion. It was particularly useful when students realized how diverse their views could be.
- A better understanding was also achieved because the videos often involved more topical and/or local examples that were more "lively" to students, when compared with the US-based cases in textbooks.

There are, however, several potential disadvantages for the video and discussion activities. Most notable is that running activities in the class inevitably uses up class time. However, students were not overly concerned about this. As long as the videos and discussions were carefully planned with a focus on an achievement of the learning outcomes, then they didn't believe that it was a problem to use class time for these activities.





## 26. Teaching Surgery Using CCTV– Beyond the Class Size Limit (Tp19)

*Prof. Enders Kwok Wai NG & Prof. Paul Bo San LAI  
Department of Surgery*

### Background:

Small group teaching with ample clinical exposure is a core-value of our medical school. With the increase in the number of medical students in coming years, the Prince of Wales Hospital is reaching its clinical teaching capacity. The conventional practice whereby students observe the different operative procedures will become difficult and ineffective. In addition, the loss of teacher-student interaction and an unguaranteed case mix will reduce the learning of Medicine and Surgery to one that is both disorganised and incomplete.

### Methods:

To tackle these obstacles, a weekly student seminar on elective surgical operations was conducted by transmitting high quality CCTV of live surgery to a seminar room equipped with high-definition 3D monitors. One day prior to the surgery, students were assigned to: 1) clerk-in and examine the patients; 2) review the relevant anatomy and pathology; or 3) conduct a literature study about the details of the disease. Students presented the results of their assignments during the seminar before, as well as during, the live surgery transmission. A discussion (including an illustration of the operative details) was conducted by the modulator without any disturbance to the operating surgeons.

We studied the effectiveness of this teaching method through the following activities:

- 1 Pre- and post-exposure MCQ tests to assess the learning outcome of students.
- 2 Focus group interviews were conducted with the teachers and the surgeons involved.
- 3 Focus group interviews and a series of standardized questionnaires were conducted with the medical students.

### Results:

The high satisfaction scores from the medical student feedback indicated that the teaching program was very well accepted. The use of CCTV during surgical operations also benefited students in the acquisition of knowledge related to the subject (Surgery), and provided them with a better understanding of the principles of a patient's disease and surgical anatomy as well as the perioperative care of patients. The overall satisfaction rate was >92%. The MCQ tests conducted before and after the lesson also confirmed a significant advantage of this teaching method in conveying new clinical concepts; indeed, most students were able to retain the knowledge even in the year-end examination.

### Conclusion:

The use of the latest audio-visual technology combined with enhanced teacher-student interaction has improved the learning experience of the senior medical students. The CCTV transmission and high definition image display overcomes the problem of the ever-increasing size of classes in our medical school, and standardizes the clinical exposure of medical students.





## 27. KEEP- The Powerful Education Cloud Infrastructure (P19, Tp12)

*Prof. Irwin KING, Raymond YUEN & William LEUNG  
Department of Computer Science and Engineering, KEEP Project*

KEEP, the Knowledge and Education Exchange Platform (<https://keep.edu.hk>), is an initiative developed by The CUHK in collaboration with the other UGC-funded institutions in Hong Kong. This partnership helps to facilitate the sharing of educational resources among the higher education institutions in Hong Kong and beyond. KEEP integrates heterogeneous education systems, services and resources by developing common standards and protocols for sharing data and information among all the local higher education institutions. The platform provides a personal education and collaboration portal as a one-stop site for sharing and accessing education resources and services. It also facilitates innovative education applications and new paradigms, with a user-friendly module development toolkit, a large and powerful data mining engine, and a flexible cloud infrastructure for hosting shared materials and services.

Professor Irwin King (the Principal Investigator of KEEP), and the KEEP Project team will give participants a tour through the platform, introducing them to its major features as well as describing how KEEP showcases innovative technologies in education.

Prof. King and the KEEP team will also demonstrate the various KEEP products - the KEEP Catalog, KEEP Course, KEEP Search and KEEP Poll - during the seminar held in the coming Teaching and Learning Innovation Expo 2015. In addition, they will demonstrate the KEEP Poll Apple Watch application, which is used in conjunction with KEEP Poll.

## 28. PlantWalk@CUHK, A Smart Phone-guided Self-learning Walk (P20)

*Dr. David Tai Wai LAU, Dr. Cheung Ming CHOW, Dr. Kwok Cheong CHUNG, Tin Hang WONG, Siu Kwan WONG & Yiu Man CHAN  
School of Life Sciences*

PlantWalk@CUHK is a smart phone-compatible website that aims to engage students from the botanic courses to authenticate and study plants in five selected sites of the CUHK campus. These include learning spots in United College, the Central campus, the Herbal Garden, the Alumni Garden and Chung Chi College. At each spot, plant species of ecological value, medicinal importance, or with horticultural applications are tagged using an interactive interface. Guided by the built-in interactive map, students can then visit these spots and examine and learn about the highlighted plants step by step through answering interactive questions such as whether the plant is a tree or shrub, its overall height, colour of the flowers, and the size and type of the fruit. With this handy tool, students can review basic information about the plants and thus build on the knowledge they learned during the lessons. They can also instantly acquire detailed bioinformation about the plants by accessing the Species Factsheet of Shin-Ying Hu Herbarium, and exploring the applications on authentication, ecology, economic aspects, and medicinal uses. This courseware has been used by students of BIOL4510 and UGEB2350 as an exercise for learning outside the classroom.





## 29. Smart-phone Compatible Blended Learning for Biodiversity (P21)

*Dr. Cheung Ming CHOW, Dr. Tai Wai LAU, Dr. Kwok Cheong CHUNG & Tin Hang WONG  
School of Life Sciences*

Students learn about biodiversity by accumulating knowledge regarding the morphological and adaptive features of specimens that are examined in the laboratory and in the natural habitat. Due to the limited number of hours involved in the classroom, students often find it difficult to recognize the specimens and pinpoint their adaptive features during the lessons and examinations. To overcome these learning obstacles, "Investigating Biodiversity", a study module with 6 learning objectives, has been developed as a smart-phone app to provide students with an *in silico* learning experience for identifying and examining different types of living species and preserved specimens in the simulated laboratory or field setting. These learning objectives include:

- I. Fern identification
- II. The microscopic world of bryophytes
- III. Field investigation tool for freshwater stream organisms
- IV. Field investigation tool for rocky shore organisms
- V. Self-learning of plant species in the CUHK campus
- VI. Theme-based plant species portfolio

Students are expected to use these self-study tools to prepare and revise for their laboratory classes and lectures. This virtual experience will give students more confidence when examining and identifying real samples during their lab sessions/field trips, which should result in a better in-class performance. Students can also use these learning materials for consolidating their knowledge.

In this poster presentation, we will share the courseware design and the up-to-date progress.

## 30. Enhancement of Learning in an Orthopaedic Teaching Program with an Upgraded Student Learning Outcome Mapping Platform (P22, Tp17)

*Prof. Tsz Ping LAM  
Department of Orthopaedics and Traumatology*

The SLO (Student Learning Outcome) Mapping Platform (SMP), is a web-based application to facilitate teaching and learning for medical students in alignment with the University Teaching and Learning Strategy. It has been installed in the orthopaedic program of the medical curriculum since 2010. The platform was constructed in 2 phases. Phase 1 includes multimedia self-learning materials and self-assessment exercises mapped with a clearly defined SLO. Phase 2 is an upgraded version, which includes a performance analyzer (PA), an assessment generator (AG) and a discussion platform (DP). The PA serves to analyze the student's performance as a formative and summative assessment. Detailed attribute-based reports (PA reports, or PARs) with scores for each subtopic / cognitive level and domain are generated automatically. Individual reports are delivered to the students to adjust their study planning accordingly, while reports on the performance of the whole class are presented to the teachers so they can fine-tune their teaching strategy. The AG helps teachers to generate assessment papers in a cost-effective manner according to the attribute distribution pre-determined by the examiners.





The third component is the DP, which acts as a conduit for student-teacher communication with regards to both the academic and program issues.

The successful outcome of Phase 1 has previously been reported in detail. To evaluate Phase 2 in terms of its acceptance to students and teachers, and its impact on the performance of students, a study was carried out on 168 Year 5 medical students who took a mid-module Formative Assessment, which was comprised of 30 A-type MCQs covering ten orthopaedics sub-topics. Scores were adjusted with a “mean equating” approach and students were provided with a confidential PAR in the week that followed. Their performance during the final examination was then compared with that from the previous year when no PAR had been provided. Feedback questionnaires were then administered to both the students and teachers to obtain their views about the use of PARs and the DP.

The results showed that the mean scores on A-type MCQ items in the final examination increased from  $27.04 \pm 3.03$  in 2014 ( $n=167$ , without PAR) to  $28.33 \pm 3.26$  in 2015 ( $n=168$ , with PAR) ( $p < 0.05$ ). For the feedback questionnaire regarding the PAR, the average scores for the various items ranged from 4.01 to 4.36 for students ( $n=147$ ) and from 4.50 to 5.25 for teachers ( $n=14$ ), indicating good results. With regards to the feedback questionnaire for the DP, the average score for teachers ( $n=11$ ) and students ( $n=80$ ) ranged from 4.73 to 5.25 and 4.13 to 4.36, respectively, also indicating good outcomes.

The results of this study showed that the DP and PAR were well accepted by both the students and teachers. The students’ academic performance improved with use of the PAR. The SMP is therefore considered to be an acceptable and effective teaching and learning tool for orthopaedic modules, and it can potentially be applied for use with other teaching programs of the medical curriculum.

Acknowledgement: This project is supported by the Teaching Development Grant (2013-2015)

### 31. Videos and Interactive Questions for Learning Biochemistry: Feedback from a Focus Group (P23, Tp13)

*Prof. Pang Chui SHAW, Prof. Siu Kai KONG, Chi Fai LEUNG & Pui Yin LAU  
School of Life Sciences*

To enhance teaching and learning in biochemistry, we have established a shareable e-learning platform (<http://www.bch.cuhk.edu.hk/learnbiochem/>), consisting of six modules: (1) Protein Biochemistry; (2) DNA Technology; (3) Biochemistry and Life; (4) Laboratory Equipment and Techniques; (5) Data Presentation; and (6) Self-study Skills. These e-learning modules are currently being used for a number of the courses in the Biochemistry Programme.

Recently, several additional videos, with a narrative of the common biochemistry principles and techniques, have been launched. Also included are interactive quizzes for the students to pursue their self-directed learning. Feedback on the effectiveness of these videos, as well as suggestions for improvement, has been solicited through focus group discussions and questionnaires.

A focus group of 13 Biochemistry students, comprised of year two and year four undergraduates, as well as postgraduates, provided constructive feedback along with suggestions for improvement.

Our questionnaires covered three areas:

- (1) The service level of videos and interactive questions.
- (2) The relevance of the videos and interactive questions with regards to the courses being studied.
- (3) Comments for future improvement





The ratings for most of the videos and interactive questions were high, and most of the comments were positive. Students found the questions to be useful for their studies, and some were even inspired to delve deeper for some of the more relevant topics. Suggestions for improvement included adding more explanation regarding the technical terms, and adding more animations and questions to inspire learning further. Our experience may be useful for the construction of similar platforms in other programmes.

Acknowledgements: This project is supported by the Teaching Development Grant (2013-2015) and the UGC Teaching and Learning Related Initiatives Fund (Reference: CUHK5/T&L/12-15).

### 32. Online Learning Platform of University Chinese Grammar in Use (TDG): The New Development (P24)

*Dr. Felix Lip Yan CHAO, Dr. Yin ha CHAN & Dr. Wing Kin LEE*  
Independent Learning Centre

The aim of this Teaching Development Grant (TDG) funded project is to promote independent learning by encouraging the incorporation of self-directed learning activities into the school curriculum. In collaboration with the Department of Chinese Language and Literature, the Independent Learning Centre has created an online platform for students to learn Chinese grammar. The platform contains tailor-made content for students of CHLT 1100 - University Chinese I, including reflective questions, interactive exercises, note-taking functions and recommended resources for learners. The platform has been up and running since the 2014 Fall Semester, and a focus study was conducted at the end of 2014, at which time useful comments and suggestions for improvement were collected. Following the feedback received, the content, examples and exercises were revised, and two new chapters were added. All the changes were made to enhance the function of the platform as a self-learning tool. The new platform is available for use now, during the 2015 Fall Semester, and so far there are 1,022 registered users. Students are allowed to set their own learning goals and study at their own pace. Learner autonomy has been further enhanced by encouraging teachers to monitor the needs of the class and design individual teaching activities within the platform accordingly.

### 33. Development of Online Tools for the Teaching and Learning of Biological Pathways (P25)

*Dr. Hung Kui NGAI*  
School of Life Sciences

Biological pathways refer to a set of sequential reactions among biomolecules that eventually lead to certain changes inside or outside a cell. These pathways may trigger the formation of new biomolecules or transduce biochemical signals, which are important for body functioning. Therefore, the teaching of biological pathways constitutes an essential part of many life science courses, such as Metabolism, Enzymology, Molecular Biology, Endocrinology and Cell Biology. However, conceptualizing the complex relationships both within and between a set of seemingly unrelated biochemical reactions, and making use of this information can be quite daunting to some students. It is also challenging for teachers to present the mechanisms of enzymatic reactions, as well as the regulation and function of a large number of biochemical reactions within a limited timeframe. Here, we will present a set of multi-media tools that have been developed to address these issues, which are currently being used for the teaching and learning of common biological pathways.





### 34. Class Response Application for Undergraduate Laboratory Courses (P26)

*Dr. Kendrew MAK, Dr. Wing Fat CHAN & Dr. Yu San CHEUNG  
Department of Chemistry*

The availability of campus-wide Wi-Fi, a powerful and comprehensive campus E-learning platform, and a classroom response system, in conjunction with the rise in popularity of smartphones and tablet PCs among students, means that there are new opportunities to integrate these new technologies into the undergraduate courses in a creative manner.

In this project, we are going to explore and develop the integration of e-learning platform and classroom response methods into the undergraduate laboratory classes. The application of e-learning technologies in laboratory classes will be explored in the following ways:

1. Setting up a centralized repository to collect the experimental results acquired by students in each laboratory class.
2. Allowing students to view and compare their results with those obtained by others, via this centralized repository.
3. Facilitating the instructors to monitor the performance of the students.
4. Enabling the amalgamation of students' data in order to convert the laboratory session into a bigger investigative project.
5. Providing learning resources for students to improve their practical skills for different laboratory activities.

The applications and resources will be developed via an existing e-learning or class-response platform. Certain prototypes of the class-response platform have already been implemented in undergraduate laboratory courses for our major students. During the laboratory session, students are required to upload their experimental data into the central platform. There is a wide range in the types of results that have already been uploaded by students from different courses such as photographs of reaction products and spectra, and videos of chemical changes that occur during experiments as well as numerical data for analysis. Students can also view and compare their results with those of their peers during the laboratory session.

After implementation in five undergraduate courses, the comments received from students among the trial runs have been positive and encouraging. A large portion of students agree that the e-learning application improves their laboratory performance and motivates them to strive for better performance.

### 35. MOOCs: Design for Learning (Tp20)

*Dr. Paula HODGSON & Mavis CHAN  
Centre for Learning Enhancement And Research*

Mass Open Online Courses (MOOCs) aim to provide opportunities for anyone with an interest in learning but with no prior academic entry qualifications. This type of online learning simulates in-class teaching, in which content is delivered as recorded lectures or with embedded animation in videos. Apart from watching weekly videos with questions for contemplation, learners are set a variety of activities, including reading relevant web resources, doing quizzes, taking part in forum discussions,





participating in synchronous discussions, undertaking short writing tasks and completing essays. The results obtained in the quizzes and essay writing, in addition to meeting the minimum forum participation requirements, are counted in the overall assessment in a MOOC. Some MOOCs are designed for individual learning experiences, with content that disregards the number of learners in these courses. However, some are designed to have dialogic interactions among learners with diverse backgrounds and capabilities. With reference to the Seven Principles for Good Practice in Undergraduate Education, three MOOCs are discussed to illustrate differences in course design, and how learners may have different types of self-directed learning experiences. Learning outcomes are discussed, particularly why the design of effective pedagogy matters for learners with diverse interests, learning and working practices.

### 36. Blended Learning: Using Blackboard to Create a Community of Inquiry (Tp6)

*Prof. Michael LOWER  
Faculty of Law*

This talk describes the experience of designing and implementing the creation of a blended learning environment to support the establishment of a Community of Inquiry linked to an undergraduate law course ('the innovation'). The availability of technology does not alter the essence of the teacher's role. It does, however, offer new tools each with their own affordances. At the moment, it is for individual teachers (drawing on the relevant literature) to design learning environments that seek to exploit these affordances and to share the results of their experience. The aim of this project is to design a blended learning space to support students as they carry out individual mini-research projects falling within a broadly defined common theme. The digital element of this blended learning environment draws on tools available within the Blackboard VLE course. The intention is to encourage the sense of a Community of Inquiry or of Practice where the central purpose of the Community is collective exploration of an important, difficult area of the law that is in a state of flux. This talk explains the design of the innovation (and how it evolved) as well as the theory that underpins it.

### 37. A Joint E-learning / MOOC Platform of Hong Kong's Tertiary Education Sector (P27)

*Prof. Paul LAM & Nelson SIU  
Centre for Learning Enhancement And Research*

In this poster, we present some work being conducted at the CUHK as part of a joint-university collaborative project, where we aim to develop and host a series of massive open online courses (MOOCs) for the local audience. Two courses are currently being prepared: an introductory course on Chinese medicine, and a course on food and drink chemistry. A prototype of some of the course materials will be presented in order to share our experiences as well as to collect initial feedback from practitioners.





### 38. Establishment of New Paradigm with Feasible Models in Teaching and Learning Science for Problem Solving and Future Development (P28)

*Prof. Wai Yin POON<sup>1</sup>, Prof. Thomas Kwok Keung AU<sup>2</sup>, Prof. Ming Chung CHU<sup>3</sup>, Prof. Liwen JIANG<sup>4</sup>,  
Dr. Kendrew Kin Wah MAK<sup>5</sup>, Prof. Pang Chui SHAW<sup>4</sup>, Prof. Teng Fong WONG<sup>6</sup> &  
24 more teachers as Co-supervisors / Co-investigators*

*<sup>1</sup>Department of Statistics, <sup>2</sup>Department of Mathematics, <sup>3</sup>Department of Physics,  
<sup>4</sup>School of Life Sciences, <sup>5</sup>Department of Chemistry, <sup>6</sup>Earth System Science Programme*

The rapid development of technology has changed the way that students acquire knowledge and information, and many teachers have started to use these new tools in their teaching practices. While there are more and more successful cases of “flipped classrooms”, innovative practices are mostly confined to the classroom environment and a teacher’s individual method of delivery. Many academics still do not appreciate the necessity to establish blended learning, nor do they recognise that eLearning is an indispensable component in curriculum design at the programme level, and there is currently a lack of critical mass that can lead to advancement at the system level. With the support of 35 teachers who are at different stages in their career paths, the current project was designed to fill this gap. The project aims to use technology to address the issue of the heterogeneous background of students in the junior year science (including mathematics) courses, which is a prevailing and increasingly severe problem in higher education. Our strategy is to first secure buy-in at the system level by solving problems, and at the same time foster further developments to add value. Specifically, we will develop a host of digital resources; establish practical eLearning and blended learning models; construct models that actively involve students to enhance their learning through teaching/mentoring; and establish a community of practices that will serve as a change agent to promote the new teaching and learning paradigm of adopting eLearning and blended learning at the programme level.

### 39. iGEM: A Success Story of Our Students (P29)

*Prof. King-ming CHAN<sup>1</sup>, Dr. Jacky F.C. LOO<sup>1</sup>, Prof. Ting Fung CHAN<sup>1</sup>, Prof. Siu Kai KONG<sup>1</sup>,  
Prof. Kevin K.Y. YIP<sup>2</sup> & Prof. Pun To YUNG<sup>3</sup>*

*<sup>1</sup>School of Life Sciences, <sup>2</sup>Department of Computer Science and Engineering,  
<sup>3</sup>Department of Biomedical Engineering*

Synthetic biology is a rapidly emerging field that applies abstraction and other important engineering concepts to the biological sciences, and it has taken undergraduate science and engineering education by storm. The annual iGEM (International Genetically Engineered Machine) competition has quickly become the major event that encourages undergraduate students worldwide to be a driving force in synthetic biology research.

Our iGEM teams consist mainly of (but are not limited to) students from the Faculties of Science and Engineering. We work together using synthetic biology concepts to develop so-called “bio-bricks”, the standardized DNA parts that are tailor-made for different specific tasks. We then characterize them systemically and scientifically with real experiments and modelling. We customarily present our projects to other non-science students, but most recently we have also started to publicize them to secondary school pupils and the general public. Since the iGEM competitions are international games, students are able to make contact with their peers from universities overseas via the Internet, in addition to in the virtual competition during the iGEM Jamborees. The games also place a lot of emphasis on the use of oral and poster presentations as well as the use of wiki pages.





Participating in such competitions provides us with an opportunity to be the first to learn about the latest developments in the research field and new techniques outside the classroom. Most importantly, students also learn how to work together and interact with their peers at top universities around the world. Supported by the Faculty of Science and Faculty of Engineering at the CUHK as well as many other sponsors, we have obtained 5 Gold Awards and 1 Silver Award. Since 2010 we have also obtained the Best New Bio-Brick Part (Natural) and Best Bio-Brick Measurement Approach in 2011, and Best New Biobrick Part (Natural) in 2013 Asia Jamboree. Since then, our teams have had a lot of exposure to the general public and the mass media through different channels. We have also published a paper in a peer-reviewed journal describing our work from the 2010 project.

(Funded by the 2012-15 Teaching Development Grants Triennium; Sponsored by the Faculty of Engineering and Biochemistry Program, School of Life Sciences)

#### 40. 潛行校園的書寫力量 (P30, Ta2)\*

陳燕遐博士

*Independent Learning Centre*

「書寫力量」自2012年9月推行以來，舉辦了近50場大小活動，凝聚了近200學生義工，合作的校內、外單位接近30，三年來獲邀出席的校外講座、訪問、廣播及電視節目訪談等不下10個，亦多次獲商業機構邀請合作，面書專頁讚好人數超過8,300，而且持續穩定增加，每天瀏覽人數超過1,600人次（以2015年10月為例），以一個師生自發、無全職或兼職員工、只有非常少量資助的文學組織而言，能持續保持活力，可算是一個罕有的異數。其成功涉及中大校園文化、師生對義務參與的投入，以及大學對活動的支持。本文及海報以深入訪談參與義工為基礎，仔細分析以上各點，並探討未來發展的可能及限制。

\* *The presentation will be conducted in Cantonese.*

#### 41. Experiential Learning: “Umbrella Festival 2015” as a Case Study (Tp18)

Prof. Benny Kok Wai LIM

*Department of Cultural and Religious Studies*

The Umbrella Festival 2015 ran between the 17th and 31st May, 2015 at the Jockey Club Creative Arts Centre. The 14-day arts festival consisted of 28 events, including performing arts, visual arts, film arts, workshops, talks and cultural walks. The festival attracted over 5,000 visitors and was described in over 50 media reports (including both print and broadcast format). Despite the seemingly huge scale of the festival, the entire management was carried out by students who were enrolled in the CULS5321A course on Curating and Managing Cultural Festivals, which was offered in Term 2 (2014/15) by the Master of Arts in Cultural Management programme by the Department of Cultural and Religious Studies. The class of 18 students looked after the programming, marketing and administration of the entire festival.

This 20-min presentation seeks to share the teaching and learning considerations of this course from various perspectives. Firstly, there will be a discussion on how the course was designed, and the process involved in aligning the course to the programme learning outcomes. The rationale behind the course learning outcomes will also be shared. Secondly, I will explain how the students' learning hours were managed, especially having to balance their time between their weekly classes and the eventual





14-day festival - the actual experience. Inevitably, this section will also describe the delivery of the course. Finally, the assessment strategies and processes will be explained, especially how they aligned to the course learning outcomes.

#### 42. Enhancing Student Learning Abroad: A Research-based, Online General Education Course (P31, Ta3)

*Prof. Jane JACKSON  
Department of English*

This presentation centers on a fully online, credit-bearing course designed to enhance the sojourn learning of international exchange students from the CUHK. Drawing on the experiential learning theory (Kolb, 1983) and the Intercultural Development Continuum (Hammer, 2012), the “UGED 2184/ ENGE 2180 Intercultural Communication and Engagement Abroad” course aims to raise awareness of intercultural communication issues while promoting constructive intercultural/L2 interactions in the host environment. As well as digesting readings, PowerPoint presentations, and selected YouTube links, the participants write reflective essays, exchange ideas online, and carry out fieldwork. The weekly Forum encourages students to examine their own (and others’) international/intercultural experience in relation to theories and models of cross-cultural adjustment, intercultural competence, identity reconstruction, and global citizenship. Structured reflection provides a powerful medium through which the students share and reflect on their intercultural interactions and sojourn learning. In the first offering, there were 22 undergraduates from various Faculties who were participating in either a semester or year-long international exchange program. After providing an overview of the course, this presentation will highlight key findings and discuss the challenges and benefits of offering a course of this nature to enrich international exchange programs.

#### 43. Outdoor Learning Opportunities for ALL: A Service Learning Project at CUHK (P32)

*Dr. Yiu Bun CHUNG<sup>1</sup>, Dr. Chiu Woo CHOW<sup>2</sup>, Hiu Hin TSE<sup>3</sup> & Yat Cheong LEUNG<sup>4</sup>  
<sup>1</sup>Centre for Advancement in Inclusive and Special Education, Faculty of Education (HKU),  
<sup>2</sup>Department of Curriculum & Instruction (HKIEd), <sup>3</sup>Institute of Future Cities (CUHK),  
<sup>4</sup>SKH Wing Chun Primary School*

To achieve the goal of whole person development, the life-wide learning<sup>1</sup> curriculum guide states that; “It is important to provide opportunities for all students to develop their potential in different ways.” (CDC, 2000). However, not all students share equal outdoor learning opportunities. Previous local research (Wu, 2007, Chou et al., 2014), showed that poor children generally have fewer opportunities in outdoor learning because of the financial burden that is incurred. With support from a charity fund<sup>2</sup>, a mobile schooling service learning project was launched in 2012. The project recruits university students as voluntary mentors. By adopting an Invitational Approach (Chung et al., in press), the volunteers led 40 economically-disadvantaged Secondary Four students to learn Liberal Studies in various outdoor environments. The core values of the approach were respect, trust, optimism, intentionality and care. Now in its fourth year, the project is expanding the scope of its service and is becoming more inclusive. Nearly 100 secondary school students have been recruited, including ethnic minorities and students with visual impairment.





<sup>1</sup>*Life-wide learning refers to student learning in real contexts and authentic settings, which are most likely the outdoor learning contexts beyond classrooms.*

<sup>2</sup>*The Fortune Pharmacal Lai Yung Kwoon Charity Fund*

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#### **44. Internationalization: How Social Exchanges with Students from Same or Different Backgrounds Influence Well-being (P33, Ta4)**

*Prof. Helene Hoi Lam FUNG & Dr. Fan ZHANG  
Department of Psychology*

Internationalization on campus faces many challenges. These include the problems encountered when trying to attract local students to activities organised for the international students, and the reluctance of students from different backgrounds to interact with one another. In an attempt to understand these issues, the current study explored how social exchanges among three groups of students (local, Mainland and international) were associated with psychological well-being. A total of 300 college students took an online survey, of which 268 valid data were collected (68.7% were from female students). With hierarchical linear regression, we found that positive social exchanges with local students predicted better psychological well-being, particularly in the aspects of personal growth, positive relationships and having a purpose in life; whereas negative exchanges with local students showed the opposite effect. On the other hand, exchanges with Mainland or international students, whether positive or negative, were not associated with psychological well-being. This lack of association could be changed by taking empathy into consideration. Among individuals with a lower level of anxiety in helping others (but not among those with a higher level of anxiety), positive exchanges with Mainland students predicted better well-being. These findings suggest that reducing the self-oriented distress when helping others may be a means to promote the participation and benefits of international activities for college students.





#### **45. The Relationships among Overseas Exchanges /Internships, Workplace Location Choices and Boundaryless Career Orientation (P34)**

*Dr. Almaz Man Kuen CHAK  
Department of Management*

The transformation of the higher education sector through internationalization is prevailing across different regions. Overseas exchanges and overseas internships are now widely adopted to facilitate this transformation. However, studies to determine how these international learning experiences might affect students' career orientations and choices, and hence the labour market landscape, are still limited. To fill this gap, we investigated whether such learning experiences might affect the choice made by students' regarding their prospective workplace location, and explored the effect on the formation of geographically boundaryless career orientation.

Both qualitative and quantitative methods were used in the study. We interviewed 100+ students who had experience of international learning during their undergraduate studies in Hong Kong. Furthermore, we conducted a survey with 900+ undergraduates on the same issue.

The findings suggest that there are positive correlations between the learning experience and the choice of location of the prospective workplace, and also the inclination to work outside one's home country. Also, the students' disciplines and the types of learning experiences that they experienced also significantly affected their workplace location choices.

Such findings might help universities and governments to understand the impact of these international learning experiences, and how they might reshape the talent pool and labour market landscape in our world economy.

#### **46. Understanding CUHK Freshmen: What a Comprehensive Entry Survey Can Tell? (Tp10)**

*Prof. Mei Yee LEUNG  
Office of University General Education*

Since 2012, CLEAR, the Office of University General Education and the Office of Student Affairs have made a concerted effort to launch a comprehensive set of "Entry Surveys" to capture entering students' characteristics, aspirations, values, attitudes, expectations and learning behaviour. The consolidated questionnaire consists of some 60 questions many of which have multiple items. The survey provides invaluable information for administrators and teachers to understand the incoming students' academic self-concept, their habits of mind, and their readiness for university learning. This presentation will briefly introduce the major components of the questionnaire and will provide some findings from a survey conducted in 2014. We will also demonstrate how, by informing us of the students' needs and dispositions, these findings can provide a reference when considering the design of the curriculum, the choice of an appropriate learning approach, and the implementation of co-curricular activities.





#### 47. Changes in Students' Science Anxiety in In Dialogue with Nature (P35)

*Dr. Sandy Wan Heng HOI & Dr. Wing Hung WONG  
Office of University General Education*

It has been reported that “science anxiety” is a hindrance to students’ learning of science knowledge and their application of science skills in life. Gender stereotyping and misconceptions about the scientific method have been identified as being contributing factors to science anxiety. “In Dialogue with Nature” is a compulsory general education course for undergraduates at the CUHK. In this course, students are encouraged to engage in reading science core-texts and contribute to peer discussions about science-related issues, which thereby clarify their misconceptions and increase their confidence in analyzing social issues from a scientific perspective. In this study, we investigate the possible factors that might contribute to a change in the students’ science anxiety after taking this course. A preliminary survey completed by 92 students, indicated that there was a significant reduction in the proportion of students of both genders with science anxiety. Correlations among students’ science anxiety, non-science anxiety, their major programme and academic performance in this course were also evaluated. This study is being continued this semester, and it involves more students from different classes.

#### 48. Students' Responses to Ethical Disagreements and Their Impact on Learning (P36)

*Dr. Kevin Ka Wai IP & Dr. Liang LIAO  
Office of University General Education*

A central question in moral philosophy is the extent to which ethical judgments are objective statements or are simply relative to the person expressing them. Beliefs about the nature of ethical judgements are “meta-ethical”. The psychological literature on moral judgments suggests that having an awareness of cultural differences can affect a person’s view on the objectivity or relativity of ethical statements. In the “UGFH 1000 - In Dialogue with Humanity” course, students are regularly exposed to radically different perspectives with regards to what is considered to be a good life and an ideal society, that are drawn from different cultural traditions. Our research aims to find out whether regular exposure to radically different perspectives on a good life and ideal society – such as Confucius, Aristotle, Plato, Marx and other classics – will have an impact on the students’ meta-ethical views and their learning. We developed an entry-and-exit survey whereby participants were asked to report their views on six ethical statements. Participants were also asked to report their attitude towards those who hold a different ethical belief. Our study focused on the possible changes in the meta-ethical views of students after they engaged in a series of tutorial discussions on ethical issues. In order to better explore their decision-making process regarding these ethical statements, interviews were conducted to facilitate the clarification of the findings from the statistical investigation.





#### 49. Student Voice: Choice as a Way of Differentiated Instruction (P37)

*Dr. Sally Wai Yan WAN, Ylena Yan WONG, Vincent CHEUNG,  
Donix Kwan Ho CHAN, Harold LO & David HO  
Department of Curriculum and Instruction*

In light of the widening participation in higher education, there has been growing concern about catering to learner diversity in these sectors. In the recent higher education reforms, learning-oriented pedagogies and assessments were promoted. Differentiated instruction was strongly encouraged as it has long been regarded as being one of the most effective research-based strategies to address the needs of students. In addition, student choice is regarded as being an essential component in promoting this type of instruction. At the same time, a student's voice is considered to be important to 'portray the experiences' and 'find ways of describing some of the main differences in how students think about learning and carry out their studying' (Entwistle, 2000). Therefore, the objectives of this case study are: (a) to share our ideas of using student choice as part of an assessment in one undergraduate course about school-based curriculum development, and (b) to explore how students perceive and experience choice in the process of assessment. The implications for applying student choice to assessment in higher education will be presented.

#### Reference:

Entwistle, N. (2000). Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts. Paper presented at the TLRP Conference, Leicester, UK. Retrieved on October 21, 2015 from: <http://www.tlrp.org/pub/acadpub/Entwistle2000.pdf>.

#### 50. 《學風》與《尋·思》 (P38)\*

*Carmen LAU, Nicole YANG, Cindi TANG, Flora LEUNG, Ivy LU & Irene LEUNG  
Centre for Learning Enhancement And Research*

《學風》與《尋·思》是兩份雜誌。主要讀者對象是大學教職員。它們分別從不同方面探討大學裡常規教學活動之外，影響學習的因素和同學參與的學習活動。

什麼是學習風氣？香港中文大學的學習風氣是怎樣？《學風》旨在具體認識學習風氣、觀察校園現象、察訪師生觀點、報告研究發現、鼓勵對話和討論，從而深入了解中文大學的學習環境。

《尋·思》旨在探究正規學術課程的框架外，中大學生的心智活動，尤其在他們追求理想和志業的時候，如何著力於思維層面的活動。透過報導不同社群的學生在隱蔽課程中的歷練和成長，加深讀者認識學生更整全的智育發展。

探討學習風氣與學生主導的智識活動可以有許多方法，《學風》與《尋·思》代表其中一種。並且這個嘗試剛剛開始。

\* The presentation will be conducted in Cantonese.





## 51. Misbehaving Students? Strategic Learning Behaviours among Students (P39)

*Dr. Wai Yin NG, Sin Yee TANG, Flora Man Ki LEUNG & Nicole YANG  
Centre for Learning Enhancement And Research*

Are your students misbehaving? For a conscientious teacher, this can be a difficult issue to come to terms with and address. If your students are not coming to class, or not working hard, they may or may not be misbehaving, as it is their choice as to how they invest their time. When a student procrastinates, it may be due to his/her lack of discipline, or they might be a victim of another student's misbehaviour. When free-riding happens in a group project, it might be due to an individual avoiding work, a dysfunctional group, or there may be unintended perverse incentives in the way the coursework is administered.

Our immediate goal is to compile illustrative cases of strategic learning behaviours including free-riding in group work, trumping (“屈機”) and self-plagiarism, all of which are obvious cases of misbehaving. We also pay attention to other instances widely studied in the psychology literature, such as procrastination, defensive pessimism, self-handicapping, disengagement and truancy.

Eventually, we hope to encourage open discussion and debate at the University in order to gain a better mutual understanding among students, teachers and administrators.

\*This project is part of the 2012-2015 Triennium project on “Reinforcing the Importance of Academic Integrity and Ethics in Students through Blended Learning”. This joint-university project is funded by Scheme C of the Focused Innovations Scheme for the approved project of UGC Teaching and Learning Related Initiatives (2012-2015 Triennium), and it is led by Hong Kong Baptist University. Hong Kong Polytechnic University and the Hong Kong Institute of Education are also our working partners.

## 52. E-Learning Imperial Chinese History (Tp11)

*Dr. Brandon KING & Prof. Jan KIELY  
Centre for China Studies*

In this presentation, we will discuss our experience incorporating an e-learning component into our flagship course, “CCSS1001: China's Cultural Past”. In its previous configuration, the course relied heavily on in-class lectures. There were also course tutorials that were aimed at facilitating classroom discussions about the relevant reading assignments for the week. This year, we have attempted to maintain these original pedagogical elements while at the same time accomplishing at least three additional components: 1) providing more variety with regards to the types of media used by the students to obtain information; 2) creating new ways in which students can participate in class; and 3) developing a new pedagogical space in which students can play a more active role in their learning process. Inspired by the tenets of structural cooperative learning, we have attempted to expand our curriculum while also creating a classroom structure that requires a higher and more consistent level of student investment. This structure is meant to not only create a more egalitarian classroom culture in which students frequently collaborate with one another, but it breaks with the more traditional “vertical patterns” of education, and thus creates “student-teachers” or students who teach each other through dialogue and collaborative efforts. We suggest that with this new approach, students who would normally be relatively passive responders of an instructor's dissemination of information are transformed into useful sources of valuable information, ideas, and perspectives. E-learning can thus promote academic enrichment in every student.





### 53. Text-to-Audiovisual Speech Synthesis for Computer-Aided Pronunciation Training (P40)

*Prof. Helen MENG*

*Department of Systems Engineering and Engineering Management*

We have developed and distributed a text-to-audiovisual-speech (TTAVS) synthesizer to support interaction in computer-aided pronunciation training (CAPT) on a mobile platform. The TTAVS serves to generate audiovisual corrective feedback based on detected mispronunciations from the second language learner's speech. Our approach encodes key visemes in SVG format that are compressed by gzip and transmitted to the client, after which the browser can perform real-time morphing to render the visual speech. We have also developed a TTAVS animation player that can play the audio and visual speech synchronously while enabling user controls such as play/pause/resume. Evaluation shows that this newly proposed approach (vis-à-vis our original approach, which involves the generation of an OGG video on the server-side, which is streamed to the client), achieves a significant reduction (i.e. 66%) in the average size of the output files that are transmitted from the server to the client, as well as an 83% reduction in the client waiting time and good preservation of the quality of the images generated.

我們成功開發分散式文字轉可視化語音(text-to-audiovisual-speech,TTAVS)合成技術，用來支持在流動設備上使用電腦輔助發音訓練(Computer-aided pronunciation training, CAPT)系統的互動性。文字轉可視化語音合成技術能夠根據第二語言學習者所犯的發音錯誤提供聽覺和視覺的糾正反饋。我們採用技術的方法是把構成動畫的所 有關鍵視位(key viseme)以可縮放向量圖形(Scalable Vector Graphics, SVG)格式編碼，先以gzip算法壓縮並傳送至客戶端的設備上，客戶端上的瀏覽器把資料解壓縮後，把視位進行實時變形並將動畫渲染出來。同時，我們也開發了一個專為控制可視化語音動畫的播放器，該播放器能夠把音頻頻道和視頻頻道同步，並能夠控制動畫的開始、暫停和繼續播放。我們把該分散式文字轉可視化語音合成技術和傳統在伺服器上生成OGG影片並傳送至客戶端技術進行評估測試，新的方法顯著地把檔案大小縮減了百分之六十六，同時等候伺服器的時間也大幅減小百分之八十三，更值得注意的是新方法 還能夠保持影像的質素。

### 54. "Meridian Illustrator" – The Interactive Acupuncture Textbook (P41)

*Michael Chung<sup>1</sup>, Prof. Yuan An JIANG<sup>1</sup>, Simon HO<sup>2</sup>, Lilian LO<sup>1</sup> & Wendy FAN<sup>1</sup>*

*<sup>1</sup>School of Chinese Medicine, <sup>2</sup>Shaw College*

In the current project, we aim to establish a portable visual aid for the learning of meridians and acupoints, the basic knowledge blocks of acupuncture. Currently, students learn meridians via the use of diagrams or plastic dolls. However, with the former, it is difficult to demonstrate the spatial arrangement of the body, whereas the latter is not convenient to carry around. An alternative, is the augmented reality (AR) technique, which has previously been demonstrated to be helpful in projecting digital graphics. With the AR technique, users can project animations or three dimensional digital graphics that are merged with real pictures, by scanning the printed markers on a paper textbook; the angle of the graphics can then be controlled by tilting the markers. In the current test version, students can view the major head meridian lines using a smartphone.

*The current project is funded by the ITSC Courseware development grant (2013-14).*





## 55. Applying the Competition Model and Cognitive Linguistics to the Instruction of English Prepositions: The English Preposition Tutor (Ta5)

Ivy Man Ho WONG & Prof. Helen Yun ZHAO  
Department of English

We describe our attempt to investigate whether a cognitive linguistic approach might be superior over traditional explicit instruction when teaching English prepositions in a Hong Kong context. To this end, 64 English learners at an intermediate level of proficiency were randomly assigned to one of the four groups: 1) Schema feedback (SF); 2) Rule feedback (RF); 3) Corrective feedback (CF); and 4) Control group (receiving training on English articles). The first three groups received training on three prepositions (in, at, over) through the computer-based online tutor shown in Figure 1. Participants were asked to choose the sentence that matched the given picture and they were provided with immediate feedback. The SF group was given a schematic drawing mapped with the sentence as well as a verbal explanation of the mapping (as shown in Figure 1). The RF group was given a metalinguistic explanation of the preposition usage with three example sentences. The CF group was informed whether their choice was correct or not. The data were collected through a pre-post-test assessment and they demonstrated the superiority of the cognitive linguistic approach, particularly in the translation test.

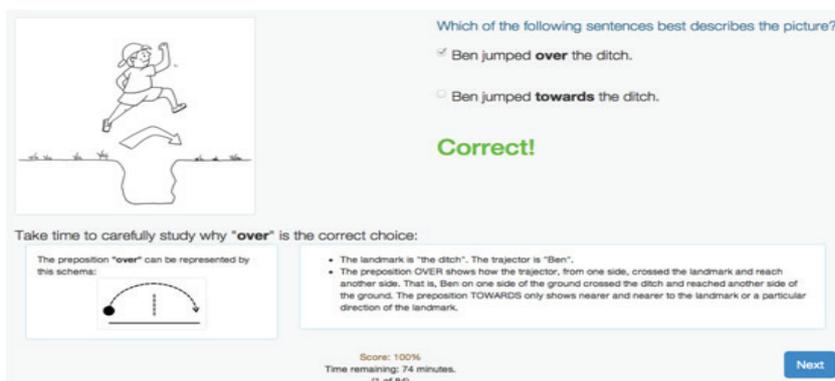


Figure 1. Snapshot of the English preposition tutor (schema feedback)

## 56. Developing and Testing Concept-Based Teaching: The Ultimate Common Core/General Education Learning Experience (P42)

Prof. Leo Ou-fan LEE<sup>1</sup> & Florian VERBEEK<sup>2</sup>  
<sup>1</sup>Faculty of Arts, <sup>2</sup>University of Hong Kong PhD Candidate Applicant

There are many excellent interdisciplinary courses on offer in the context of a common core or general education experience. Curiously, these courses often still follow topical or disciplinary lines in their core. This means that they only indirectly contribute to the educational ideals of common core/general education, and thus do so through mediation. The CUHK has chosen to do this through for example, reading classics, and it is actually unique in its consistency in learning goals and course contents. Achieving these goals is however, as much (or even more) a matter of pedagogy than it is one of content.





All the HK universities share an interest in developing advanced learning and thinking skills, in improving innovative and interdisciplinary capacity, and in contributing to a sense of citizenship and civic virtues: or so it says in their mission statements and learning goals. This presentation will introduce the idea of Concept-based Teaching, a pedagogy that directly addresses all these general educational goals. Instead of focusing on content or familiarization with some discipline or academic research subject, it focuses on personal, professional and intellectual development. It achieves this through the intense interdisciplinary study of generic concepts such as authority, identity, love and sexuality, problems, work, and science, which are offered in the form of six supplementary university courses. It functions on four levels of conceptual engagement: 1) Varied disciplinary course readings; 2) A collection of concept-related themes; 3) Conceptual analysis and application; and 4) Ultimately, an awareness of the role of concepts in knowledge and meaning. The themes assure that conceptual issues become tangible, and connect academia to real-life situations. They also provide accessible introductions to multiple disciplines and demand thorough and potentially confrontational reflection on multiple levels.

The six courses are now in prototype form, and the next step in research is finalizing their development and creating an assessment framework for testing their effectiveness. This presentation is from a research proposal in its second revision, created in cooperation with Gray Lindgren (HKU Common Core Director) and Leo Ou-Fan (CUHK Sin Wai Kin Professor of Chinese Culture).

### **57. Peer Assisted Study Session (PASS) in the General Education Foundation Programme (P43, Tp9)**

*Dr. Wai Man SZETO, Prof. Mei Yee LEUNG & Anthony Hoi Wa CHENG  
Office of University General Education*

Widely adopted in the US with proven effectiveness, and quickly spreading to other parts of the world, Peer Assisted Study Sessions (PASS) consist of weekly one-hour, voluntary study sessions on a particular course, which are led by students who previously excelled in that course. These students (or “PASS Leaders”) do not teach but serve as facilitators for group learning. PASS are particularly effective for introductory first-year courses, technical subjects and in classes where the discrepancy in knowledge among students is large. PASS have been piloted in the General Education Foundation (GEF) Programme as well as in several subjects in the Faculty of Medicine at the CUHK. This presentation will give an overview of PASS, how they have been implemented in the GEF Programme, and how they can help GEF students consolidate their understanding, reinforce key concepts and develop effective study strategies.

### **58. The Peer Mentoring Program: Facilitating Academic Support at College Level (Tp7)**

*Dr. Yvonne LOONG  
Independent Learning Centre*

The “Peer Mentoring Program” or PMP is organised by the Independent Learning Centre (ILC). This program aims to provide selected senior year students (mentors) from both the CW Chu and Morningside Colleges with mentoring and academic support skills; they can then help first-year students (mentees) from their respective colleges to adjust more easily to university life and the CUHK environment. Mentors attend four formal training sessions at the ILC (one of which is supported by





a professional counselor from the Office of Student Affairs), on topics such as learning styles, action planning, reflective thinking, time management and peer counseling skills. The aim of these sessions is to equip the mentors with the knowledge they need to offer the appropriate academic advice both efficiently and effectively to their mentees. Semester 1 of the 2015-2016 academic year is the second time that the PMP program has run, and a total of 10 mentors joined our program this year. The feedback collected from the participants throughout and at the end of the program indicated a positive and supportive learning experience; and many of the comments made are in line with those reported in the literature. This presentation will discuss the unique features of the program, its implementation and the data collected from both the mentors and mentees.

### 59. Roundtable Session on Undergraduate Research (Tp15)\*

*Dr. Brian Christopher THOMPSON<sup>1</sup>, Prof. Peichi CHUNG<sup>2</sup>,  
Prof. Lynne NAKANO<sup>3</sup> & Prof. Sze Wing TANG<sup>4</sup>*

*<sup>1</sup>Department of Music, <sup>2</sup>Department of Cultural and Religious Studies, <sup>3</sup>Department of Japanese Studies,  
<sup>4</sup>Department of Chinese Language and Literature*

This roundtable session will offer participants an opportunity to discuss the challenges of introducing capstone courses, and also to consider more broadly the goals of engaging undergraduates in research. With participants from different disciplines within the Faculty of Arts, the main focus will be on the humanities. Many of the issues, however, will also be relevant to the social sciences, education, business, and other disciplines.

#### Questions/issues

- What impact has the introduction of capstone courses had on the overall undergraduate curriculum with your programme?
- Does placing greater emphasis on research necessitate changes in pedagogical methods or learning activities?
- Have there been financial implications? What impact does undergraduate research have, if any, on your department's budget?
- Is the local secondary curriculum preparing students adequately for our new curriculum?

\*This session will be held in a roundtable format.

#### Biographies of Participants

Prof. Peichi Chung teaches courses of Cultural Policy, Cultural and Creative Industries and Introduction to Culture, Humanity and Society at the undergraduate level in the Department of Cultural and Religious Studies. She is interested in implementing an industry perspective into humanity courses. She is currently the undergraduate program coordinator and undergraduate curriculum committee member in the cultural studies program.

Prof. Lynne Nakano is an anthropologist in the Department of Japanese Studies. She teaches courses on the anthropology of Japan, research methods, and introductory courses on the Japanese society and culture. She has been involved in developing the capstone course for the Department of Japanese Studies and is currently a co-coordinator of this course.

Dr. Brian Thompson teaches courses on Western music history, film music, and music pedagogy.





He has created and taught courses for the Office of University General Education as well as for the Department of Music. He has been a member of his department's undergraduate curriculum committee for the past five years.

Prof. Sze-Wing Tang teaches courses on Chinese linguistics and Cantonese grammar. He is Vice Chairman (Curriculum and Administration) of the Department of Chinese Language and Literature and a member of the committee that oversees the capstone course of the Department.

Dr. Brian Thompson (facilitator) teaches courses on Western music history, film music, and music pedagogy. He has created and taught courses for the Office of University General Education as well as for the Department of Music. He has been a member of his department's undergraduate curriculum committee for the past five years.

### **60. The Impacts of Creative Music Pedagogy on Hong Kong Pre-school Teachers' Self-Efficacy in Teaching Music (P44)**

*Fanny CHUNG  
Faculty of Arts*

In this study, the self-efficacy of local in-service early childhood teachers in teaching music was examined when a mixed method approach was adopted. This project aimed to examine this research question: "What is the impact of a music pedagogy course on in-service teachers' self-efficacy in teaching music to young children?" Currently, there are only a limited number of studies on this subject. The findings of this new study suggest that a one-semester course can significantly boost teachers' self-efficacy in teaching music. These results therefore demonstrate the importance of providing the appropriate in-service education in music for early childhood teachers. The findings of this study have implications for music teacher educators, universities, and policymakers in the planning of future education in music for early childhood teachers both locally in Hong Kong and worldwide. In doing so, they will provide a platform for future research in music and arts education.

### **61. Introduction of the New eLearning Services Centre – ELITE (P45)**

*Jack LEE, Eddie KWOK & Jo WONG  
Centre for Learning Enhancement And Research*

As stated in the Academic Development Proposal (ADP) for 2016-2019, one of the major directions for development at the CUHK is the advancement of eLearning; and the construction of micro-modules to support flipped classroom teaching is now being widely promoted. To support these long-term commitments, The Centre for eLearning Innovation and Technology (ELITE) has recently been established to provide support for different eLearning projects such as micro-module courseware development (MMCD), and other University initiatives such as the creation of Massive Open Online Courses (MOOCs).

ELITE has two sound-proof recording studios and one multi-purpose teacher-booth (with two editing workstations). The studios are equipped with high-quality microphones and have improved room acoustics, which provide a quiet and echo-free space for audio recording. They are thus ideal for





producing computer-based presentations or for high-quality filming, according to the requirements of the project. Our studios are designed for creating videos for online courses and tutorials, as well as for developing multimedia content for on-campus teaching. The editing workstations in the teacher-booth provide services for post-editing video content. They can also be used for consultation and for software training sessions. The studios and teacher-booth are managed by our Media Production Specialists, who provide support and training to teachers upon request.

The studios and editing workstations will officially open in January 2016.

## 62. Constructing Micro-modules for eLearning (P46)

*Prof. S.M. KUMTA, Dr Yan JIN & Alex YUNG  
Office of Medical Education, Faculty of Medicine*

Micro-module in medical teaching is a format of short presentation on elaborating one topic under a teaching course. It contains enriched topic information blended with multi-media to assist effective eLearning.

Micro-module has been introduced to assist flipped classroom teaching model. Education Resources, Office of Medical Education (OME) first applied micro-module concept on constructing eLearning courseware from Year 2014 within Faculty of Medicine and promoted it among departments. Faculty members have also adopted this concept to transform didactic teaching into an eLearning model.

A guideline of constructing a micro-module courseware as an effective eLearning model has been summarized by Education Resources. Five components are indispensable for a micro-module courseware.

A course with clear learning objectives and teaching goals; the pre-engagement that leads students into the beginning of the topic; the engagement of core knowledge; the post-assessment with instant feedback; and the evaluation with student feedback are integrated as a complete package for a micro-module courseware.

Education Resources has assisted teacher from School of Biomedical Sciences, CUHK on constructing 10 micro-modules for Foundation Courseware for Health Sciences. Year One students from different disciplines, like Nursing school, Public Health; Pharmacy; Chinese Medicine, have studied these 10 micro-modules in Year 2015.

## 63. Flipped Classroom with Micro-Modules for Macroeconomics in Business (P47)

*Dr. Fred K.T. KU, Dr. David Lap Kei CHOW & Dr. Andrew Chi Lok YUEN  
Department of Decision Sciences and Managerial Economics, Business School*

Flipped classroom is an instructional strategy and a type of blended learning that reverses the traditional educational arrangement. For instance, Abeysekera & Dawson (2015) define it as “a set of pedagogical approaches that: (1) move most information-transmission teaching out of class (2) use class time for learning activities that are active and social and (3) require students to complete pre-





and/or post-class activities to fully benefit from in-class work”

The micro-modules are designed to support flipped classroom. There are 6 micro module videos which cover an important topic in macroeconomics – the Aggregate Demand – Aggregate Supply Model, which help us to understand short run economic fluctuations. These short videos focus on explaining the core macroeconomic concepts with diagrams, motion graphics and real life examples, and highlight related concepts in the topic, including business cycles, aggregate demand (AD), aggregate supply (AS), and macroeconomic equilibrium.

Students are expected to watch the videos before class. During the class, there will be in-depth discussion and other class activities around the topic. Through the videos and in-class discussion, students are expected to understand: i) what the core concepts in AD-AS model; and ii) apply the knowledge to analyze real world macroeconomic problems.

#### 64. Pilot Testing: Flipped Learning in the Cloud using MS Office 365 + MS SharePoint (P48)

*Dr. Jacqueline Wai-ting WONG*  
*Department of Decision Sciences and Managerial Economics*

1. Objective: Construct a cloud-based multiple-sessions collaborative platform to (1) facilitate the learning of all students within groups and across groups; and (2) support interactive learning between teachers and students.
2. Provide a platform for sharing knowledge among students with team members, other teams in the same class, and other teams in different sessions of the same course.
3. Provide a close-ended secured platform using cloud-computing technologies to simplify administration costs and efforts while maintain high degree of privacy.
4. Support a communication platform that can be used without limitation of location and time.
5. Allow open discussion, document sharing, instant messaging, and content collaboration.
6. Support multimedia data, including video clips.
7. Operate in time-derived manner that include calendar and tasks assignment for Project Management.
8. Support multileveled collaboration
  - a. Users (Teachers, Teaching Assistant, Students, Admin. Staff of the program, etc.)
  - b. Course (e.g. DSME 2051) → Class/ Session (e.g. DSME 2051 A, DSME 2051 B, ... DSME 2051 n) → groups under Class/Session (e.g. group 1, group 2, group 3... group n)
9. Support online survey
  - a. Before class start: understand students ICT background and proficiency for fine-tuning the topics and contents covered.
  - b. During the term: Peer Evaluation and Lecture based questions.
  - c. At the end of term: Course End feedback

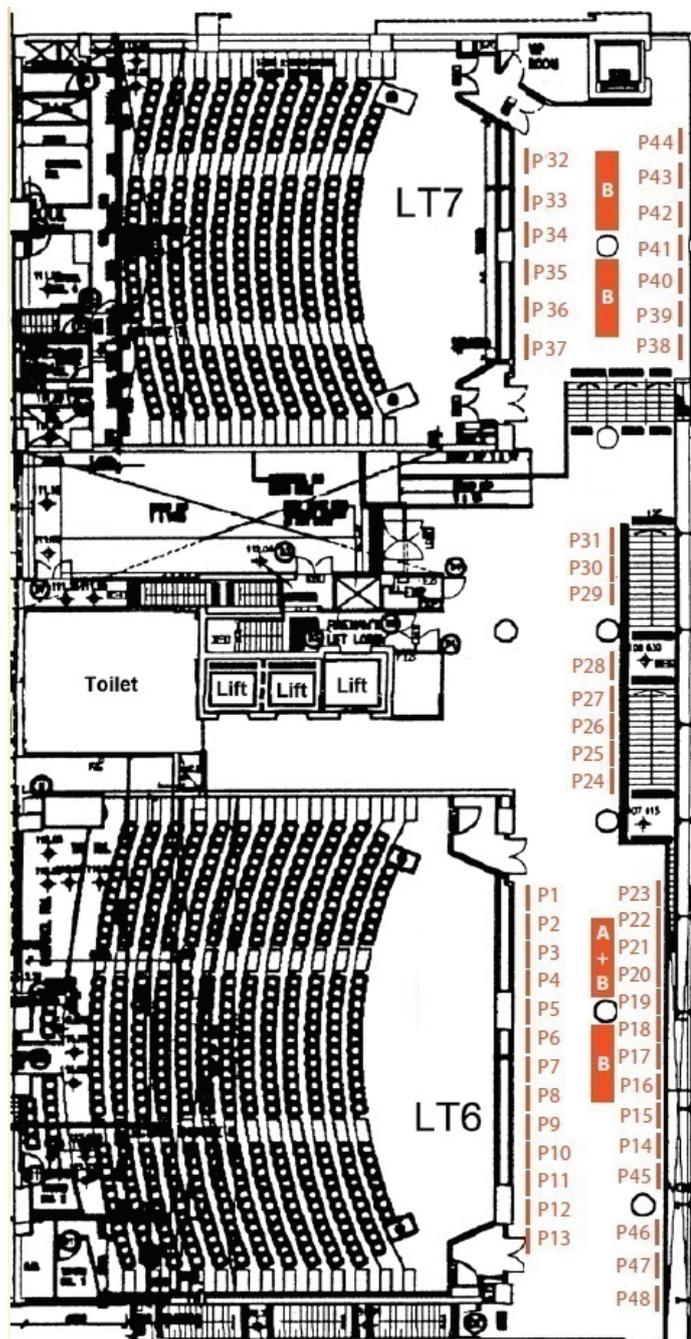
(Funded by: The Teaching Development Grants for 2015-16 Roll-over Year)







Floor Plans of Conference Venue

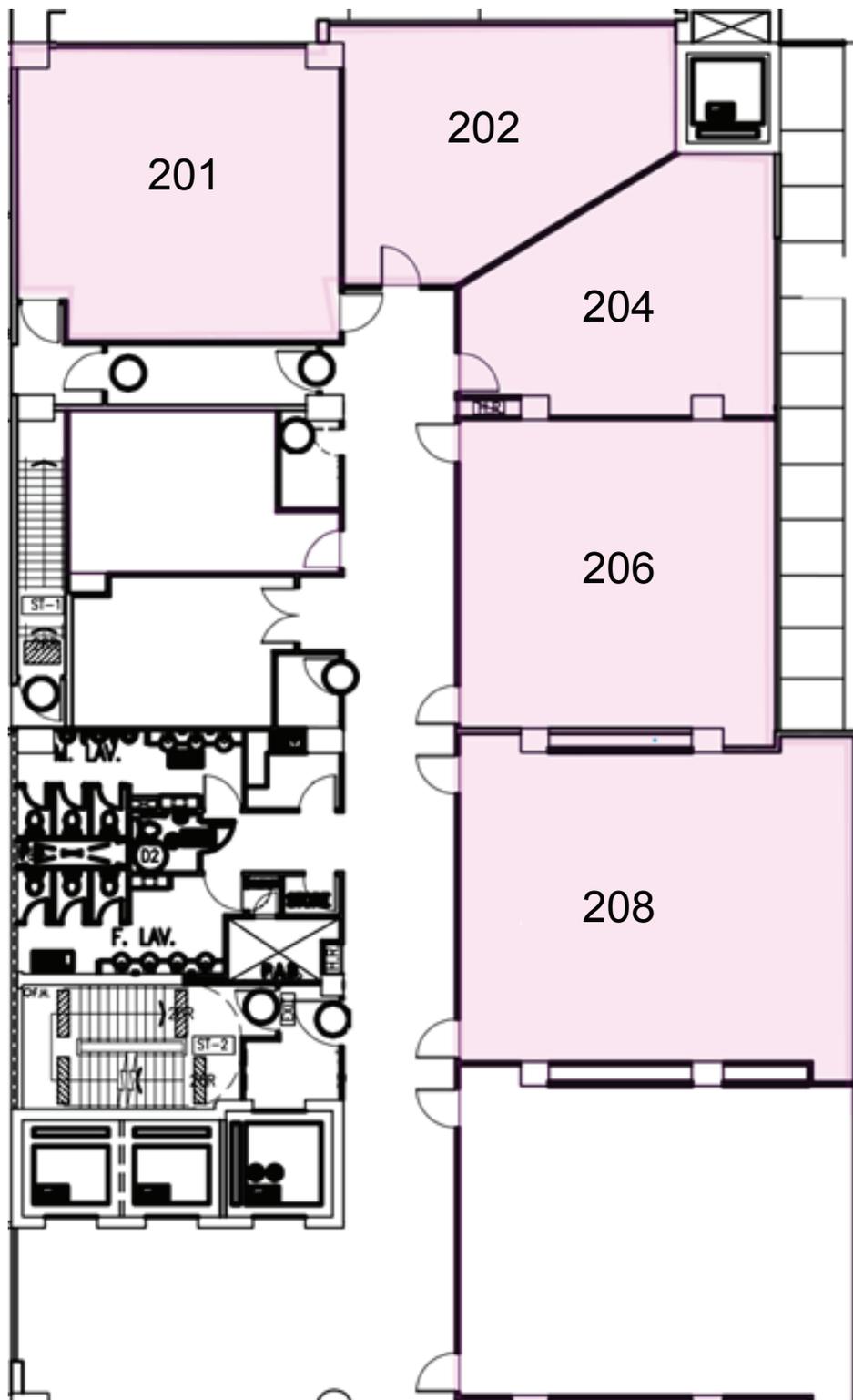


A: Registration  
 B: Refreshment





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