

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Scheme 1: Basic Scheme

Final Report (2015-16)

Report due 31 December 2016

Please return by email to The Ad hoc Committee on Planning of eLearning Infrastructure
mmcd@cuhk.edu.hk

PART I

Project title: Enhancing learning Economics with Games and Apps

Principal supervisor: Dr. Lau Ka, William

Department / Unit: Department of Decision Science and Managerial Economics

Project duration: From January 2016 to December 2016

Date report submitted: 31 December 2016

1. Project objectives (Supplier)

This project aims at enhancing students learning efficiency in Economics in 2-way approach. First, we boost the intrinsic motivation of students in learning Economics, when they realize how close Economics is with their daily life and how interesting it can be. Second, we reinforce the theories in Economics they have learnt in class into a long-term memory. In contrast to the revision before exam that usually results in short-term memory of students, the game can deliver a deeper impression of Economics theories in their mind. The project is on track to meet its objectives.

2. Process, outcomes or deliverables (Supplier)

The syllabus of DSME 1030 Micro Economics is integrated into the modules and the modules are divided into 2 modules, i.e. the elementary module (Game 1) and the advanced module (Game 2). Each module will be transformed into both real Room Escape (with the aid of apps) and virtual Room Escape game (in the form of computer game) series. 4 game modules are completed and shown as follows:

Items	Completion Date
Game 1 – Game Design (Chi & Eng)	Late February, 2016
Game 1 – Apps development (Chi & Eng)	Early April, 2016
Game 1 – Computer game development (Chi & Eng)	Early May, 2016
Game 2 – Game Design (Chi & Eng)	Mid May, 2016

Game 2 – Apps development (Chi & Eng)	Early June, 2016
Game 2 – Computer game development (Chi & Eng)	Early July, 2016

Fine adjustments of the modules are taken place after pilot testing were carried out on 31st August 2016, as scheduled in the project proposal. The time for completion for the project's evaluation is on the timeline. The project is satisfactory.

3. Evaluation Plan (Supplier)

We conducted survey right after Game 1 to find out the interest of students to take the room escape game, and the feasibility of the game to replace traditional teaching materials. Similar evaluation was done after game 2 was carried out. In general, over 87% and 82% of participants agree that the game can 1) arouse the interest in learning Economics and 2) help better learning in Economics respectively, out of 111 participants in Game 1. In Game 2, over 95% of participants agree 1) and 2), out of 51 participants. It indicates the objectives were achieved.

4. Dissemination, diffusion and impact (Supplier)

The games could be easily expanded to other courses or other faculties. As the framework of the game is well established in this project, expansion to other courses would only require the substitution of different course materials into the game.

PART II

Financial data (Supplier)

Funds available:

Funds awarded from MMCDG	\$ 99,600	<hr/>
Funds secured from other sources (please specify _____)	\$	<hr/>
Total:	\$ 99,600	<hr/>

Expenditure:

Item	Budget as per application	Expenditure	Balance
Game Design	\$16,000	\$16,000	\$0
Modules Development	\$60,000	\$60,000	\$0
CUHK Classroom Charge	\$0	\$600	-\$600
Remuneration of helpers	\$8,800	\$16,035	-\$8,035
Remuneration of participants for game trials	\$8,800	\$4,180	\$4,620

Awards to game winners	\$4,000	\$2,200	\$1,800
Miscellaneous Cost	\$2,000	\$562.3	\$1,437.7
Total:	\$99,600	\$99,577.3	\$22.7

PART III

Lessons learnt from the project (Lecturer)

Please describe your *way forward*.

Please describe any of the following item(s) accordingly:

- *Key success factors: Communicate with students to get instant feedback to improve the modules.*
- *Difficulties encountered and remedial actions taken: My TA said it took them over 200 hours to coordinate the students to join the games in different time slots.*
- *Suggestions to CUHK, if any*
 - *Provide supports to teachers who involve in this kind of projects, e.g. course load reduction, full-time TA support (instead of having PGS students as TA), etc.*

PART IV

Information for public access (Supplier)

Summary information and brief write-ups of individual projects will be uploaded to a publicly accessible CUHK MMCDG website. Please extract from Part I the relevant information to facilitate the compilation of the publicly accessible website and reports.

1. Keywords

Please provide five keywords (in the order of most relevant to your project to least relevant) to describe your micro-modules/pedagogies adopted. (Supplier)

- (Most relevant) Keyword 1: Interactive
- Keyword 2: Dynamic
- Keyword 3: Enhancement
- Keyword 4: Innovative
- (Least relevant) Keyword 5: Learning Motivation

2. Summary

Please provide information, if any, in the following tables, and provide the details in Part I.

Table 1: Publicly accessible online resources (if any)

(a) Project website:
(b) Webpage(s):
(c) Tools / Services: <i>Games Design</i> <i>Game Apps Development</i> <i>Computer Games Development</i> <i>Game events conduction</i>
(d) Pedagogical Use
(c) Others (please specify):

Table 2: Resources accessible to a target group of students (if any)

If resources (e.g. software) have been developed for a target group of students (e.g. in a course, in a department) to gain access through specific platforms (e.g. Blackboard, facebook), please specify.

<u>Course Code/ Target Students</u>	<u>Term & Year of offering</u>	<u>Approximate No. of students</u>	<u>Platform</u>
<i>DSME1030</i>	<i>1st term 2016/2017</i>	<i>150</i>	<i>Blackboard</i> <i>Google Drive</i>

Table 3: Presentation (if any)

Please classify each of the (oral/poster) presentations into one and only one of the following categories

	Number
(a) In workshop/retreat within your unit (e.g. department, faculty)	<i>1</i>
(b) In workshop/retreat organized for CUHK teachers (e.g. CLEAR workshop, workshop organized by other CUHK units)	<i>/</i>
(c) In CUHK ExPo jointly organized by CLEAR and ITSC	<i>/</i>
(d) In any other event held in HK (e.g. UGC symposium, talks delivered to units of other institutions)	<i>/</i>
(e) In international conference	<i>/</i>
(f) Others (please specify)	<i>/</i>

Table 4: Publication (if any)

Please classify each piece of publication into one and only one of the following categories

	Number
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(a) Project CD/DVD	/
(b) Project leaflet	/
(c) Project booklet	/
(d) A section/chapter in a booklet/ book distributed to a limited group of audience	/
(e) Conference proceeding	/
(f) A chapter in a book accessible internationally	/
(g) A paper in a referred journal	/
(h) Others (please specify)	/

3. Video

<https://drive.google.com/file/d/0B0I5xP9W-iisbThKYVFXUldpQ3c/view?usp=sharing>