

# Quality Enhancement Grant Scheme

<b>Progress Report</b>	<b>Project No. :</b>
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Reporting Period : From November 2012 (month/year) to April 2013 (month/year)

## Part A

Project Title : Development of Mobile Learning Platform, Production of Mobile Learning Content and Integration with Learning Management System

Name of Grantee : The Chinese University of Hong Kong – Tung Wah Group of Hospitals Community College

Project Period : From November 2011 (month/year) to October 2013 (month/year)

## Part B

Please use separate A4-size sheets to report the progress with regard to the following aspects:

1. Types and brief descriptions of Project activities held/completed during the reporting period (*the information may be presented in the form of a table*).
2. The dates, time, venues and number of participants / beneficiaries of Project activities held, and resources (e.g. equipment, manpower) used for the implementation of Project activities.
3. Project milestone(s) and deliverables attained at the end of the reporting period and evidence showing the attainment of milestones and deliverables.
4. The percentage, in terms of key tasks, of the Project completed at the end of each reporting period.
5. Project variation\*, if any, during the reporting period, together with details and justifications

Signature: 

Organisation Chop: 

Name of Authorised Person: Prof. Thomas Wong Kwok Shing

Name of Grantee: The Chinese University of Hong Kong - Tung Wah Group of Hospitals Community College  
Organisation: Wah Group of Hospitals Community College

Position of Authorised Person: Acting President

Date: 29 May 2013

\* A separate written application should be submitted to the Grantor for prior written approval.

## Part B

### Brief description of the project

This project aims to setup a technical infrastructure to enable the production of (and access to) mobile learning contents for students. It includes the provision of a LMS (learning management system) for the students to interact with the teachers outside the classroom.

### Milestones

#### 1. Installation of Software and Hardware

- Completeness: 100%
- Installation date (software and hardware) – started from 19 Feb 2013, completed on 22 Feb 2013.
- Installed items
  - EchoSystem 5.1
  - 3 numbers of EchoSystem SafeCapture HD appliance
- System's architecture
  - Infrastructure of the Virtual Classroom system (EchoSystem): see Appendix1 Installation
  - Server-side architecture (Appendix1 Installation)
- Capture appliances' locations and details
  - Lecture Theater 2, King's Park Campus, 31 Wylie Road, Homantin, Kowloon
  - Rm502, Tower A, Mongkok Campus, 90A Shantung Street, Mongkok, Kowloon
  - Rm801, Tower B, Mongkok Campus, 98 Shantung Street, Mongkok, Kowloon
  - Photos and connection diagrams: Appendix1 Installation
- System Administration Training (provided by the hardware vendor)
  - Date: 1 March 2013
  - Time: 2:30pm – 5:30pm
  - Venue: Rm502, Tower A, Mongkok Campus, 90A Shantung Street, Mongkok, Kowloon

- Trainer: Tommy Yeung
- Photos (Appendix1 Installation)
- System support
  - <http://echo360.com/customer-portal>
  - echo.support@bee-net.com

## **2. System testing, tuning and configuration**

- Completeness: 100%

### **2.1 System Testing**

#### **Capture appliance 1 test**

- Date: 29 Apr 2013
- Time: 9:00am – 12:45pm
- Venue: Lecture Theatre 2, King's Park Campus
- Purpose: to test capture (visual and audio) by using the installed capture appliance and the existing AV equipments (microphones, video camera, computer, visual presenter and projection control panel).
- Result: capture succeeded by utilization the above equipments.
- Images: Appendix2 System Test

#### **Capture appliance 2 test**

- Date: 29 Apr 2013
- Time: 2:30am – 5:00pm
- Venue: Rm502, Tower A, Mongkok Campus
- Purpose:
  - To test capture (visual and audio) by using the installed capture appliance and the existing AV equipments (microphones, video camera, computer and document camera).
  - To test the Live Webcasting function

- **Result:** both the capture and Live Webcasting successfully tested with the above equipments.
- **Images:** Appendix2 System Test

### **Capture appliance 3 test**

- **Date:** 25 Apr 2013
- **Time:** 3:30pm – 4:30pm
- **Venue:** Rm801, Tower B, Mongkok Campus
- **Purpose:** to test capture (visual and audio) by using the installed capture appliance and the existing AV equipments (microphones, video camera and desktop computer).
- **Result:** capture successfully tested with the above equipments.
- **Images:** Appendix2 System Test

## **2.2 System Tuning and Configuration**

### **2.2.1 Configuration of the Capturing Appliance**

<b>Device Type</b>	SoftCapture HD
<b>Audio Input Connector</b>	RCA
<b>Primary Display Input Connector</b>	DVI
<b>Primary Video Input Connector</b>	Composite
<b>Primary Video Standard</b>	PAL
<b>Secondary Display Input Connector</b>	DVI
<b>Local Storage</b>	120,000MB

Remark: detailed configuration (Appendix3 System Configuration)

### **2.2.2 Configuration of the Product Groups**

- Product Groups in Echo360 system are the different ready-made “bundles” of output products and output qualities.
- For example, Display/Video is one of the product groups which outputs mobile and EchoPlayer formats including display (e.g. the source of PC) and video capture. This product group is designed for low bandwidth and low quality capture needs.
- **Example:**

Product group name: Display/Video

Detailed configuration:

Products	Configuration	Quality	Suggested use
<b>EchoPlayer Display and Video</b>	■ flv-audio-video: 32kbps; 22050Hz; mono; w:320px; 180kbps; half frame-rate; ~95 MB/hr maximum	Low	Simple PowerPoint & instructor Talking Head
	■ m4v-audio-vga: 32kbps; 32000Hz; mono; w:640px; 250kbps; 4.0fps; ~127 MB/hr maximum		
	■ flv-audio: 32kbps; 22050Hz; mono; ~14 MB/hr maximum		
	■ swf-chunked-video: w:1024px; 667kbps; 4.0fps; ~300 MB/hr maximum		
<b>Screen Podcast</b>	■ m4v-audio-vga: 32kbps; 22050Hz; mono; w:640px; 250kbps; 10.0fps; ~127 MB/hr maximum	Medium	Detailed Powerpoint on Smartphones
<b>Podcast Audio</b>	■ mp3-audio: 64kbps; 44100Hz; mono; ~29 MB/hr maximum	Medium	Group Discussions
<b>Live Display and Video (optional)</b>	■ sdp-audio-video: 128kbps; 44100Hz; stereo; h:480px; 365kbps; half frame-rate sdp-video: h:720px; 475kbps; 15.0fps	Mobile capable	Distance learning with off campus viewers

- Total 14 product groups have been configured in the EchoSystem (Appendix3 System Configuration)

### 2.2.3 Configuration of Publishing Method

There are currently 2 methods that have been added for publishing the captured lessons:

- Blackboard Learning System - the learning management system currently used in the college (Appendix3 System Configuration)
- EchoCenter – a web site where students view the captured lessons (Appendix3 System Configuration)

### 2.2.4 Configuration of HDMI video capture

Equipment	Configuration
Video camera	<ul style="list-style-type: none"><li>• HDMI Resolution: Auto</li><li>• TV Type: 4:3</li></ul>
EchoSystem Device Setting (capture appliance 1)	Video input configuration: <ul style="list-style-type: none"><li>• Aspect ratio: 4:3</li><li>• Input: DVI</li></ul>
EDID 101D (video signal emulator)	<ul style="list-style-type: none"><li>• Digital</li><li>• 60Hz</li><li>• Rotator point to "0" (meaning that it will accept the camera resolution and pass the resolution correctly to Echo appliance)</li></ul>

### 2.3 Steps of capturing lesson

1. Teacher's request
2. Create capturing task on EchoSystem:
3. schedule capture in weekly base or
4. Ad Hoc capture
5. choose product group
6. Preparation of equipment, e.g. video camera
7. Capturing, video processing and packaging of captured material (automatic)
8. Lesson viewing URL generated in EchoSystem ready for distribution to students
9. Students viewing lessons on EchoCenter or in Blackboard

### 2.4 Pilot System Launch

- Lesson: Game Theory and Applications
- Venue: Rm801, Tower B, Mongkok Campus, 98 Shantung Street, Mongkok
- Time: 3:30pm – 6:30pm
- Total number of captured lesson: 6
- Purpose:

- The captured lessons were provided for the students who had been out of class to do practical works in companies
- Tested and fixed system issues found in real situation
- Screenshots (Appendix2 System Test)

### **3. Provision of staff and students training**

- Completeness: 100%

#### **3.1 Staff training**

- iBooks Author workshop 1 (co-organized with TWC Information Technology Service Office)
  - 5 Feb 2013
  - Time: 12pm – 1pm
  - Venue: iCampus, King's Park Campus, 31 Wylie Road, Homantin, Kowloon
  - Contents:
    - iBooks textbook features highlights
    - iBooks Author tutorial
  - Number of attendees: 10
  - Handouts: Workshop Handout 5Feb2013.pdf
  - Photos: Appendix4 Workshop Training
  - Feedbacks from the attendees: Appendix4 Workshop Training
- iBooks Author workshop 2
  - 28 Mar
  - Time: 3:15pm – 5:45pm
  - Venue: Rm2301, Tower A, Mongkok Campus, 90A Shantung Street, Mongkok
  - Number of attendees: 3
  - Handouts: iBooks Author Tutorial.pdf (Appendix)
  - Student's feedback evaluation: Appendix4 Workshop Training
  - Photos: Appendix4 Workshop Training
  - Discussion highlights: Appendix4 Workshop Training

## **3.2 Student Training**

### **3.2.1 Training 1**

- **Background:**

Starting from November 2012, the development team has made e-books for the course of Developing English Language Skills (details are shown in section 5 below). After the e-books were distributed to the students, the teachers indicated that some students have encountered problems on accessing the e-book on their devices. Therefore, the team went to the classes to explain and demonstrate the practice of accessing the e-books on different devices.
- **Purpose:**
  - To show students how to find the e-books on Blackboard
  - To show them which applications are needed to open the e-books on mobile devices
  - To show them some tips on downloading the e-books
  - To ask for participation on future online survey about mobile device (Appendix4 Workshop Training)
- **Date and time:**
  - 21 Jan 2013
  - 3 sessions in English Language lessons: 1:40pm, 5:40pm and 8:10pm
- **Material presented:**
  - eBook Introduction.pdf (Appendix)

### **3.2.2 Training 2**

- **Background:**

Besides the e-book made for the course of English Language, the team has also made e-books for the course of Statistics for Social Sciences starting from January 2013. Teacher of the course commented that the e-book reader application in mobile phone was not easy to operate. It was decided that the team would come to the class to demonstrate the operation of the application.
- **Purpose:**
  - To show students how to find the e-books in Blackboard
  - To show them which applications are needed to open the e-books on mobile



- devices
  - To show the user-interface and introduce the functions of an e-book app, Astri-Bee, for Android smartphones.
- Date and time:
  - 15 Mar 2013; 6:45pm to 7:10pm
  - Lesson: Statistics for Social Sciences
- Material presented: eBook Apps User Guide.pdf (Appendix)

\*Remark: photos of the 2 training are included in Appendix4 Workshop Training

#### **4. Promotion of e-Learning in Teaching and Learning**

- Completeness: 100%

##### **4.1 Presentation in the college's staff forum**

- Date: 15 Nov 2012
- Time: 11:50am – 12:30pm
- Venue: Lecture Theater 2, King's Park Campus, 31 Wylie Road, Homantin
- Presentation PowerPoint: Staff Forum Presentation PPT.pdf (Appendix)
- Photos: Appendix5 Promotion e-Learning
- Discussion during the Q and A session: Appendix5 Promotion e-Learning

##### **4.2 On-line Promotion**

- The team has developed the following website to promote mobile learning in the college: <http://mytwc.twc.edu.hk/mlearning/show/home.html>
- Website's contents:
  - Products – highlights the learning material developed for the mobile learning project, e.g. e-books, video, mobile quizzes and PDFs.
  - Method – suggests some co-operation methods between the teachers and development team
  - Training – shows the training and workshop we have organized to train the teachers and students

- Downloads – provides samples of mobile learning material for colleagues to try
  - Contacts – provides contact information for the colleagues to make enquiry
- Screenshots: Appendix5 Promotion e-Learning

## **5. Other key tasks done within the period**

The team has worked on the mobile learning material for the following 3 courses:

### **Quantitative Methods**

- Since last year, we have started to create the iBooks for Quantitative Methods. Within the period stated in this report, more iBooks were completed.
- Screenshots of the iBooks: Appendix6 Learning material

### **Developing English Language Skills**

- The team has made e-Books for 3 modules in the course: APA, Essay Writing and Individual Presentation (Screenshots: Appendix6 Learning Material)
- The team has also made the contents in BlackBoard Learn mobile application (Screenshots: Appendix6 Learning Material)
- The team has produced some videos for the teachers to demonstrate in the lesson of individual presentation (Screenshots: Appendix6 Learning Material)

### **Statistics for Social Sciences**

- The team has made e-Books for the following lessons:
  - Introduction, Sampling and measurement
  - Descriptive Statistics
  - Probability Distributions (1 & 2)
  - Statistical Inference: Estimation
  - Statistical Inference: Significance Tests
  - Statistical Inference: Comparison of Two Groups
  - Comparing Groups: ANOVA Methods
  - Linear Regression and Correlation
- Screenshots: Appendix6 Learning Material

## 6. Financial position (1 Nov 2011 - 30 Apr 2013)

Expenditure items	Approved budget (a)	Committed or actual expenditure (b)	Balance [(a)-(b)]
a. Manpower	960,000	742,462.01	217,537.99
b. Equipment / facilities	508,000	40,402.78	467,597.22
c. Services			
d. General expenses			
e. Others: Project Audit Fee	15,000	0	15,000
<b>Total</b>	<b>1,483,000</b>	<b>782,864.79</b>	<b>700,135.21</b>
<i>Project Income (if any)</i>			
<i>Total Balance</i>			<b>700,135.21</b>

Expenditures within period (November 2012 – April 2013) include the following items:

**Item a)** Remuneration of the project's team:

- 2 Content Developers
- 1 Project Manager

**Item b)** Equipment and facilities:

- iPad's HDMI connection cable
- External Harddisk
- Tender's postage fee