

Quality Enhancement Grant Scheme

Final Progress Report

Project No. : 19/QEGS/2011

Reporting Period : From Sep 2011 (month/year) to Feb 2014 (month/year)

Part A

Project Title : **Development of a Knowledge Management Platform for Resource Sharing in Teaching and Learning**

Name of Grantee : **School of Professional and Continuing Education, The University of Hong Kong (HKU SPACE)**

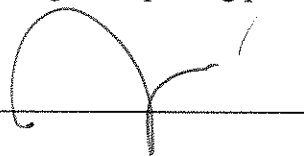
Project Period : From Sep 2011 (month/year) to Feb 2014 (month/year)

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: Lam Yuet Ching Jeanne

Name of Grantee **HKU SPACE**

Organisation: _____

Position of Authorised Person: **Associate Head, Centre for Cyber Learning**

Date: 20-May-2014

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

Quality Enhancement Grant Scheme

The University of Hong Kong
School of Professional and Continuing Education

Development of a Knowledge Management Platform for
Resource Sharing in Teaching and Learning
建立教學資源分享的知識管理平台

Final Progress Report (Sep 2011 – Feb 2014)

1 Project Summary

This project was intended to design and develop an online knowledge management platform to accommodate all existing teaching and learning resources at the HKU SPACE Community College. These resources could be shared, re-used, adapted or adopted, re-built by teachers and students anytime, anywhere. The knowledge building environment consists of four components: (a) storage (b) access (c) distribution, and (d) encourage collaboration. The forms of the teaching and learning resources include digital or non-digital resources, audio-visual materials, and text resources. The ultimate goal was to develop a community of practice at the Community College for staff and students to share, reuse, invent, extend, and co-build teaching and learning resources. This final evaluation report provided a brief summary of all activities and the developed KM platform.

The deliverables of this project were included:

- A systematically-organized knowledge-asset system at HKU SPACE Community College;
- Classification and conversion of all teaching and learning resources into a digital format;
- An uploading and sharing mechanism, which allows all staff to share their knowledge-assets ;
- An open platform for all staff and students to access, retrieve, and share resources and information;
- A search engine to cater for specific staff and student needs;
- A search function and instant feedback and answers;
- Workshops on using the knowledge management platform for staff and students;
- Use of focus group discussions to receive user's feedback for improvement ;
- Shared project outcomes with other educational institutions.

2 Project Development for the 5th Six Months

2.1 Project Meetings

There were three project meetings held on 12 Sep 2013, 6 Dec 2013 and 27 Feb 2014.

**See Appendix I – 9th, 10th and 11th Meeting Minutes.*

2.2 Conducted 2nd System Pre-test

The second pre-test on the system was held during 6 - 8 January 2014 based on the

updated KM platform. Four student helpers tested 35 scenarios of the KM platform, including display style and formatting, system bugs and new features available to the platform. The focus group discussions had been conducted after the students completed the system test.

**See Appendix II – 2nd Student Focus Group Discussion Summary*

2.3 System evaluation through focus group discussions and data analysis

The second round focus group discussions with students and teachers were held on 8 Jan 2014 and 20 Jan 2014 respectively.

**See Appendix III – 2nd Teacher Focus Group Discussion Summary*

2.4 Definition of refinement for the system

Based on the feedback and comments from system pre-test and focus group discussions, there were 35 cases prioritized into three levels of importance for system refinement. All of the modifications had been completed in February 2014.

2.5 Provision of training workshop for staff and students

The system was launched on 4 Sep 2013. Two student and five teacher and staff training workshops were arranged in September 2013 to January 2014.

3 Project Summary for the past two and half years

3.1 Developed and implemented a Knowledge Management (KM) Platform

During the post-production stage, the project team had defined the requirements and scope of the knowledge management platform and conducted feasibility study. The team had developed a system framework to facilitate a rich media KM platform. Twelve different platforms had been studied and three of the platforms had been selected for detail pilot platform test. In the end, the team adopted ViMP as the backbone of the platform development as it had the most flexible, customizable and sustainable system architecture. Furthermore, investigations on platform loading and server requirements were also conducted for IT resources planning. The team had arranged a workshop presentation in the CITE 2012 Seminar on 16 June 2012 to share the findings from the pilot study.

**See Appendix IV – The final KM Platform*

3.2 Design and developed classification and conversion to Learning Objects (LOs)

In order to facilitate the users to store or retrieve the required learning materials, learning materials were divided into small pieces of information and uploaded to the KM platform as LOs. A classification method was developed based on courses and subjects provided by the School and divided into 25 categories. Towards the end of the project, there were in total 692 LOs uploaded to the platform (see table 1 for summary).

Table 1 – Summary of updated LOs into 25 categories

Categories		Number of LOs	Categories		Number of LOs
1.	Arts and Humanities	25	14.	Japanese	13
2.	Aviation	21	15.	Law	29
3.	Business	75	16.	Logistics & Transport	25
4.	Chinese	45	17.	Mathematics	20
5.	Chinese Medicine	29	18.	Music	20
6.	Communication Studies	42	19.	Philosophy	19
7.	Culture and Media	25	20.	Real Estate	25
8.	Design	30	21.	Science and Technology	24
9.	Education	27	22.	Social Sciences	20
10.	Engineering	24	23.	Staff Development	1
11.	English	43	24.	Tourism & Hospitality	40
12.	Health & Recreation	30	25.	Others	5
13.	Information Technology	35			
Subtotal: 692					

3.3 Developed uploading and sharing mechanism

There were three user roles defined for the KM platform. The roles and privileges are as follows:

Functions	Roles		
	Teacher	Student	Guest
Upload materials	Yes	N/A	N/A
Create forum thread	Yes	N/A	N/A
Manage Group	Yes	N/A	N/A
Create Collection	Yes	N/A	N/A
Post in forum	Yes	Yes	N/A
Post comments	Yes	Yes	N/A
View materials	Yes	Yes	Yes (restricted to public materials only)

In conclusion, teacher and staff can manipulate most of the operations in the platform including uploading and sharing materials. Also, group, collection and forum thread creation operations are available. Students would be able to search and retrieve resources based on their input keyword and reply forum thread created by teachers. Guest users are allowed accessing to limited number of public materials.

3.4 Developed an extended search function

An extended search function had been developed for users to retrieve relevant LO(s) for selection. The function provides searching by keyword, description, tag, specific or multiple categories, media type, LOs owned by specific user or specific Groups. It helps users to identify relevant resources based on their interest immediately. Figure 1 illustrated the extended search function screen.

**See Appendix V – Screen Capture of the Extended Search Function.*

3.5 Training workshops and platform introduction to CC staff members

In total 10 training workshop sessions and presentations had been conducted. Three rounds of training workshops in seven sessions were organized for both teachers and students. The training workshops demonstrated the use of the platform and pedagogical use of KM materials for teaching and learning. Besides the training workshops, the KM platform also provides online user guides and video tutorials for self-learning.

Furthermore, there were three staff meeting presentations conducted during the project period for platform promotion to all teachers. Project leaflets and memo pads with project platform's QR code were dispatched to all staff for promotion during the staff meeting.

**See Appendix VI – Project Activities Summary*

3.6 System pre-test and evaluation to collect user's feedback

System evaluation had been conducted through focus group discussions and system pre-test for platform evaluation and enhancement. Details were summarized as follow:

- ✧ Two rounds of system pre-test were conducted on 27 July – 2 Aug 2013 and 6-8 Jan 2014.
- ✧ Three rounds of focus group discussions with teachers and students in total 7 sessions were arranged.
- ✧ Telephone support to teachers and individual consultation meetings with teachers were provided.

3.7 Platform debug, revision and enhancement completed based on user's feedback

Based on the system evaluation there were total of 123 scenarios tested and high priority cases were bug fixed. Enhancements had been made to the system for user friendliness included implementation of School's Centralized Authentication System (CAS) to providing single sign-on service to users; Group creation by importing student data through excel spread sheet; platform integration by providing embeds function to School LMS – SOUL 2.0.

3.8 Shared project outcomes with other educational institutions

The project team had presented a workshop entitled 'Video Sharing Platform in eLearning' at the CITE Research Symposium 2012 held on 16 June 2012.

A half day QEGS KM Seminar and workshop have been arranged in ICT 2013 held on 10 July 2013 with one keynote and three workshop sessions to share the project outcomes and promote the KM practice. One of the articles entitled 'Initiate a Knowledge Management Practice for Sustainable Continuing Education' was published in a volume under the Communications in Computer and Information Science (CCIS) series (Springer).

4 Impact or benefits of the Project

4.1 An open environment for resources sharing

Teachers thought the KM platform would be helpful for them to manage and organize teaching and learning materials. The platform provides flexibility to share resources not limited to a specific class of students or tutor group. The platform also enables students to view materials across different subject domains.

Students thought that the platform could let them explore resources from other subject areas for all-rounded development. Students also desire to have more resources related to non-JAPUS application, further study and materials from good reputation Universities.

4.2 Sustainable development of the platform

Upon the completion of the project, the project team has applied for the School's development fund to continuing the support services for the KM platform and extend the users not limited to CC staff members and students, but also HKU SPACE staff members and students to access the platform. The School had approved the request on March 2014 for sustainable development. Currently, the KM platform formally becomes one of the eLearning support services provided by CCL of the School to all teachers and students.

5 Project Variation

Descriptions of variations (eg. Change of the project scope or duration deferral of completion date, relocation of an amount exceeding 10% between items of expenditure in the budget)	Date of approval sought from QEGS Secretariat
1. Budget conversion from "Manpower-System Developer" to "Services" subtotal HKD \$195,000 for vendors to provide content editing and technical development services.	25 Nov 2013
2. Budget relocation HKD \$3,000 from "Contingency" to "Others - Auditor fee".	27 Mar 2014

6 Overall Project Milestones, Outcomes and Deliverables

Period	Project activities, milestones achieved and highlights	Status
Sep 2011 – Feb 2012	<ul style="list-style-type: none"> ➤ Definition of scope and scale of the knowledge management system ➤ Design of system framework ➤ Conduct of feasibility and requirement studies of online system 	100 % Completed
Mar 2012 – Aug 2012	<ul style="list-style-type: none"> ➤ Development of the online system ➤ Integration of the system framework into the online platform ➤ Implementation of the 1st batch of learning materials in the system 	100 % Completed
Sep 2012 – Feb 2013	<ul style="list-style-type: none"> ➤ Finalization of the approved system framework ➤ Integration of the system framework into the online 	100 % Completed

	<ul style="list-style-type: none"> platform ➤ Implementation of the 2nd batch of learning materials in the system 	
Mar 2013 – Aug 2013	<ul style="list-style-type: none"> ➤ Conduct of system pre-test ➤ Provision of training workshops for staff and students ➤ Launch of the knowledge management system ➤ System evaluation through focus group discussion and data analysis 	100 % Completed
Sep 2013 – Feb 2014	<ul style="list-style-type: none"> ➤ Conduct of system pre-test ➤ System evaluation through focus group discussion and data analysis ➤ Definition of refinement for the system 	100 % Completed
Overall Project		100%

5. Financial position as at the end date of the reporting period

Expenditure items	Approved budget (a)	Committed or actual expenditure (b)	Balance [(a)-(b)]
a. Manpower	\$990,600	\$838,227	\$152,373
b. Equipment / facilities	\$134,000	\$114,984	\$19,016
c. Services	\$294,000	\$269,527	\$24,473
d. Others	\$65,000	\$30,703	\$34,297
f. Contingency	\$43,400	-	\$43,400
Total	\$1,542,000	\$1,253,441	\$273,559
<i>Project Income (if any)</i>			-
<i>Total Balance</i>			\$273,559