

# Quality Enhancement Grant Scheme

Progress Report

Project No.: 09/QEGS/A-08-09

Reporting Period: From May 2009 (month/year) to October 2009 (month/year)

## Part A

Project Title: Adoption of open source course management system (CMS) in post-secondary institutions – A pilot study

Name of Grantee: The Community College at Lingnan University

Project Period: From May 2009 (month/year) to Dec 2010 (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 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 reporting period.
5. Project variation\*, if any, during the reporting period, together with details and justifications.

Signature: Edward Fung Organization Chop: \_\_\_\_\_



Name of Authorized

Person: Dr. Edward Fung

Name of Grantee The Community College at

Organization: Lingnan University

Position of Authorized Dean of the Community

Person: College and Further Education

Date: 19 January 2010

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

# Adoption of Open Source Course Management System (CMS) in Post-Secondary Institutions – A Pilot Study

## QEGS Progress Report (1) May – Oct. 2009

<30 November 2009>

<v1.0>

### Report Status

Division:	QEGS Project Team at CC
Category:	[Category: Report]
Template number:	<b>Progress Report (1)</b>
Date Reviewed:	Nov. 2009
Version:	1.0

# Contents

Introduction.....	3
A. Project Activities and Milestones.....	4
B. Project Milestones Completed and Deliverables Attained.....	6
C. Percentage of the Project Completed .....	7
Appendix I – Advisory Committee.....	8
Appendix II – Feasibility Report.....	9
Appendix III – Technical Progress Report.....	10
Appendix IV – Functional Requirement Report .....	11
Appendix V – Financial Statement (Unaudited) .....	12

May – Oct. 2009

&lt;30 November 2009&gt;

&lt;v1.0&gt;

Adoption of Open Source Course Management System (CMS) in Post-Secondary Institutions – A Pilot Study

&lt;Revised&gt;

## Introduction

A CMS is an essential component in today's post-secondary education in Hong Kong. However, the commercial CMS (e.g. WebCT or BlackBoard) currently adopted by most local educational institutions often lacks the flexibility to suit the special needs of Hong Kong teachers and students. The cost to support this kind of commercial system was reported relatively high, which implies a heavy financial burden on the maintenance and enhancement of the system. Furthermore, the system is highly dependent on the supports of networking infrastructure and security. Finally, the access to commercial CMS might be limited only to a certain group of students, due to an institution's internal policies, available funding or technical difficulties. For example, the access to the WebCT system at our Community College is limited only to full-time students of the Pre-Associate Degree (Pre-AD), Associate Degree (AD), Higher Diploma (HD) and Diploma (Dip) programmes; while students from Project Yi Jin (PYJ), are not supported by the existing system.

Open source CMS is an alternative system from commercial proprietary system. It is available and accessible over the Internet. Open source software is license free to use and users have more control over how that software works. Development cost is relatively low when adopting one of the open source CMS systems, which also allows institutions to modify the system and add new functionalities according to the needs of end users. In addition, an open source CMS attracts contribution from people all over the world. New plug-ins and software modules are readily available free of charge, and anyone is free to modify any part of the system to suit their own purpose.

An open source CMS is therefore a flexible system to adopt with and it provides a convenient framework for us to design a tailor-made CMS system for CC and our local post-secondary institutions. Additionally, our pilot study on adoption of an open source CMS is believed to solve most of the limitations that the WebCT encountered at the CC. Sakai is an open source CMS system and it was selected for implementation of this project.

The project consists of the development, test, and evaluation of an open source course management system (CMS) tailor-made for Hong Kong post-secondary students, and the investigation of critical success factors of a CMS in the Hong Kong post-secondary educational sector.

A project team was formed for this project in the Community College (CC) at Lingnan University (LU). All the research, development and test have been carried out within the CC, however the research findings shall be beneficial not only to CC itself, but also to the other local post-secondary institutions in Hong Kong.

Based on our proposed project schedule to the Grantor, we now compile a 6-month progress report to outline the milestones with regard to the following items:

- A. Project activities completed during the reporting period, i.e. from May to October 2009 for this report.
- B. Project milestones and deliverables attained at the end of the reporting period and evidence showing the attainment of milestones and deliverables.
- C. The finished portions of the Project at the end of reporting period.

May – Oct. 2009

&lt;30 November 2009&gt;

&lt;v1.0&gt;

Adoption of Open Source Course Management System (CMS) in Post-Secondary Institutions – A Pilot Study

&lt;Revised&gt;

## A. Project Activities and Milestones

The duration of the project is from May 2009 to December 2010. It is divided into three major phases covering the work of project feasibility, system design, implementation and deployment. The first 2 phases last for six months respectively while the final phase lasts for eight months.

The project activities and major milestones for phase 1, covering from May to October 2009, are summarized in the following table

Date	Milestone	Completed Activities
May 2009	Formation of project team	<ul style="list-style-type: none"> <li>Two research assistants (RAs) are the core members of the project team. Three other team members are from the CC teaching staff. They act as Project Leader and Coordinators. When new hire of RAs are on board, the three members have become the observers in the advisory committee. They help coordinate and monitor the progress of the project.</li> </ul>
May 2009	Initial establishment of the project advisory committee	<ul style="list-style-type: none"> <li>29 May 2009 – An advisory committee was initially formed.</li> <li>An advisory committee was officially formed in July 2009, when one of the RA staff started to work. The committee serves to advise and make recommendations to the project team internally at CC. Selected representatives at CC form the Committee, which includes the teachers from different programmes, i.e. Higher Diploma, Diploma, Associate Degree or Pre-Associate Degree. One of the main benefits is that the committee members can help the project team coordinate or facilitate the activities when it is necessary. For example, they can help disseminate survey sheets to teaching staff or students directly.</li> <li>Regular committee meetings are held every three months. The committee members give recommendations and review the project's progress during the meeting. The first committee meeting was held on 19<sup>th</sup> October 2009. For the updated committee member list and the terms of reference, please refer to <b>Appendix I</b> for reference.</li> </ul>
June 2009	Recruitment of two RA positions	<ul style="list-style-type: none"> <li>25 June 2009 - An interview panel (Chairman: Ms. Daisy Chow, Members: Mr. Justin Lam, Mr. Winn Chow) was setup and 10 candidates were called in for interview. Two best candidates were finally selected.</li> </ul>

May – Oct. 2009

&lt;30 November 2009&gt;

&lt;v1.0&gt;

Adoption of Open Source Course Management System (CMS) in Post-Secondary Institutions – A Pilot Study

&lt;Revised&gt;

Date	Milestone	Completed Activities
June 2009	Setting up a demo server, and 3 PCs for research staff	<ul style="list-style-type: none"> <li>A staff room in NAB323B/5 was set up with 3 PCs and one demo server.</li> </ul>
July – Aug. 2009	Initial development project plan	<ul style="list-style-type: none"> <li>July 2009 – The first research staff was on-board</li> <li>August 2009 - An initial development project plan was drafted.</li> </ul>
Aug. 2009	Setting up a Bugzilla bug tracking system [for system test monitoring]	<ul style="list-style-type: none"> <li>The second research staff was on-board</li> <li>A Bugzilla bug tracking system was set up.</li> </ul>
Aug. – Oct. 2009	Project feasibility report	<ul style="list-style-type: none"> <li>August 2009 – An initial feasibility report was drafted.</li> <li>October 2009 – A revised feasibility report was released. The report is attached in <b>Appendix II</b>.</li> </ul>
Aug. – Oct. 2009	Technical progress report	<ul style="list-style-type: none"> <li>An initial technical progress report was compiled. It served as the preparation work for setting up a pilot system and described the required system components from a technical perspective view. The report is attached in <b>Appendix III</b>.</li> </ul>
Sept. 2009	Setting up a pilot system	<ul style="list-style-type: none"> <li>A CMS system was set up for development and demo purpose.</li> </ul>
Sept. – Oct. 2009	Survey of user experiences on WebCT and Interviews with teachers for collecting user requirements	<ul style="list-style-type: none"> <li>Conducted surveys on user experiences for current WebCT users including students, teachers, and administrative staff at Community College.</li> <li>Incorporated a summarized survey finding into the functional requirement report.</li> </ul>
Oct. 2009	Functional requirement report	<ul style="list-style-type: none"> <li>A functional user requirement report v1.0 was drafted and distributed to the committee members for a preview.</li> <li>The purpose of this document is to capture the user requirements of various tools for the new CMS system. User requirements were collected through the survey mentioned above. Further face-to-face interviews with teachers were conducted for collecting detailed feedback</li> <li>26 October 2009 – The functional requirements report v1.0 was issued after review. (See <b>Appendix IV</b>.)</li> </ul>
Oct. 2009	Financial statement (unaudited)	<ul style="list-style-type: none"> <li>An unaudited financial statement for this period is attached in <b>Appendix V</b> for reference. It shows the transactions and the current budgetary balance of the project.</li> </ul>

May – Oct. 2009

&lt;30 November 2009&gt;

&lt;v1.0&gt;

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&lt;Revised&gt;

## B. Project Milestones Completed and Deliverables Attained

Project feasibility was being studied in order to evaluate what the potential risks and difficulties will be when implementing the project. Corresponding resolutions or alternatives are needed to be considered in this report. Finally we need to determine if the project is recommended for continuation or not. Recap that a feasibility report is attached in **Appendix II** for reference.

The key points covered in the feasibility report are as follows:

- Resource elements,
- Preliminary project schedule,
- Project objectives & system overview,
- Potential risk management, and
- Recommendation

Recommendation outlined in the report was summarized in the following. Sakai CMS was selected for this project. It is an open source, web-based and centralized system such that students are able to access it through the Internet. Teachers and students are able to access course sites with similar operations or system tools like those in other commercial CMS; time for learning how to use a new system is therefore minimized. The migration of student data from university to community college is expected to be feasible when importing data into Sakai CMS.

Furthermore, users' functional requirements will be customized in the new CMS system. Also, under a smaller student size that the Community College is running, the Sakai CMS is easier to be implemented and maintained at a lower maintenance cost. It is highly possible to complete this project with success, therefore it is recommended to carry on the project.

