

II Project Information

Project Title (in English)

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

Project Title (in Chinese)

A. Project Summary

please provide an executive summary of the project proposal in no more than 500 words).

A course management system (CMS) is an essential component in today's post-secondary education in Hong Kong. However, the commercial CMS (e.g. WebCT) currently adopted by most local institutions often lacks the flexibility to suit the special needs of Hong Kong students. Their high cost also implies a heavy financial burden on the maintenance and enhancement of the system. It is highly reliable on the network security policies and is not able to cater those students who are not accessible to the network. For example, at our College, the WebCT system is limited to full time students of the Pre-Associate degree, Associate Degree, Higher Diploma and Diploma programmes who study at the university campus. It does not cater teaching staff and majority of our full time students e.g. Project Yi Jin students who are studying at town education centres where are not at university network. Students who take full time or part time top up degree programme and other courses are not facilitated, too.

Open source CMS is an alternative system which is available on the Internet. Development cost for this system is relatively low and it allows the institutions to modify the system and add new functionality to suit their own needs. More specifically, an open source CMS attracts contribution from people all over the world. Plug-ins and modules are readily available free of charge, and anyone is free to modify any part of the system to suit their own purpose. It is therefore a very flexible system to adopt. It provides a convenient framework for us to design a CMS tailor-made for the local post-secondary education.

Our preliminary study shows that the Hong Kong University of Science and Technology is the only local post-secondary institution that has adopted an open source CMS. Owing to our small size at our College (about 2,000 full time students), we find it feasible and valuable, in both academic and practical aspects, to conduct a pilot study on the adoption of open source CMS in the post-secondary teaching and learning environment. Having assumed the system is to be easily and widely adopted by the students and teaching staff, the study is aimed at examining the possibility of developing a set of on-line assessment tools for students for multi-purpose study e.g. self study assessments, personal growth, capabilities evaluation, etc. The database generated by the tools will serve as the benchmarking indicators for students' performance both in academic and personal perspectives that will facilitate the College to evaluate the programme quality in terms of outcome-based learning, teaching resources and other student services in terms of the effectiveness of promoting whole person development.

The project consists of the development, test and evaluation of an open source 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. The CMS and the research findings should be beneficial to the other local post-secondary institutions in Hong Kong.

B. Project Objectives

(please identify the needs of the target recipients and explain how the project aims to address the needs).

- 1) To study the feasibility of Hong Kong-wide adoption of open source CMS as a replacement of commercial CMS such as WebCT.
- 2) To improve the flexibility, effectiveness, and efficiency of:
 - a) delivery of course materials online;
 - b) online, real-time response and assessment;
 - c) communication and discussion;
 - d) submission of homework assignments, project reports, etc.;
 - e) marking and grading by teachers.
- 3) To enhance the learning experience of Hong Kong students by studying and developing a tailor-made online learning model.
- 4) To study and identify the critical success factors for a CMS in Hong Kong's post-secondary education.
- 5) To achieve a significant reduction of IT cost on commercial CMS.

C. Outcomes and Deliverables of Project

(please include the expected number of target beneficiaries and explain how they will benefit from the project).

The outcome of the project will be significant to the College to promote teaching effectiveness via establishment of a well facilitated system and enhance the quality assurance for all programmes. It will improve overall learning experience of students and strengthen individualized student support. The results of the project will be presented in the following ways:-

- 1) Design of an open source CMS that is more flexible, effective, and efficient than commercial CMS;
- 2) Development of on-line multi-purpose assessment tools via the open source CMS for students at different levels
- 3) Application of the open source CMS at the College;
- 4) Sharing of research findings on the critical success factors of CMS in Hong Kong.

About 2,500 full time and part time students, administrative and teaching staff of the College is expected to be benefited from the Project since they will access the system day to day for teaching, learning and information sharing purposes.

D. Implementation Details	
Phase 1 (6 months)	
Month 1-2	Recruit 2 full time research assistant and one administrative assistant
Month 3-5	Formation of research group to conduct surveys and focus group studies for the following objectives:- To investigate the expectations and requirements of teachers and students on CMS at College level and other institutions; To investigate the existing open source CMS and study their suitability to be adopted in local post-secondary institutions.
Month 6	Generate a draft list of required functionality.
Phase 2 (6 months)	
Month 1	Plan the required improvements on the existing open source CMS.
Month 2-4	Develop a pilot system based on an existing system and add the tailor-made functionality.
Month 5-6	Conduct internal tests by a small selected group of teachers and students. Receive testers' feedbacks and make improvements on functionality and stability.
Phase 3 (8 months)	
Month 1-2	Compile user guides and conduct workshops to teach the use of the system to other teachers
Month 3-4	Conduct a test of larger scale by teachers and students of our College. Receive testers' feedbacks and make improvements on functionality and stability.
Month 5-6	Evaluate the cost and benefits of the project and identify the critical success factors of CMS in Hong Kong.
Month 7-8	Adoption of the CMS at the College Generalize and promote the system to other institutions and secondary schools if appropriate.

E. Implementation Schedule <i>(Please extend this table if necessary.)</i>		
Estimated start date of project:		_____ May 2009 _____
Action <i>(please indicate key milestones)</i>	Timeframe	Cashflow Requirement
<ul style="list-style-type: none"> ● Feasibility studies on the requirements and applications 	May 2009-October 2009	HK\$258,500
<ul style="list-style-type: none"> ● Development of the Pilot System and Commencement of Trial Exercises 	November 2009-April 2010	HK\$239,500
<ul style="list-style-type: none"> ● Final trial of the system and analysis of study ● Adoption of the system ● Promotion of the system 	May 2010-December 2010	HK\$415,000

Estimated completion date of project: _____ December 2010 _____

F. Project Budget						
Projected Expenditure <i>(Please provide detailed breakdown under each item)</i>	Amount in HK\$					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
a. Manpower						
1 Full Time RA HK\$15,000/m	180,000	135,000				
1 Full Time RA HK\$15,000/m	180,000	135,000				
1 Full Time Clerk HK\$8,000/m	96,000	72,000				<u>798,000</u>
c. Equipment / Facilities						10,000
Laptops (2) HK\$5,000@	10,000					
d. Services						
Fees for Focus Group Studies (20 persons x HK\$300@)	6,000					<u>6,000</u>
e. General Expenses						
Books and references	3,000	3,000				
Photocopying	5,000	5,000				
Miscellaneous	1,000	1,000				<u>18,000</u>
f. Others (e.g. auditor's fee)						
Costs of organizing workshop		50,000				<u>81,000</u>
Contingency (3.5%)	17,000	14,000				
Total Expenditure :	498,000	415,000				913,000
Projected Income	Amount in HK\$					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
a. (e.g. fees received)						
b.						
c.						

Total Income :						
Sources of Funding						
a.	Amount of grant sought under this application: _____913,000_____					
b.	Other sources of funding (<i>this may include donations, contributions from the applicant/its parent organization, etc. Please give the name(s) of the sponsor(s), the amount of funding, and indicate whether the funding has been secured.</i>):					
	(i) _____					
	(ii) _____					
	(iii) _____					
	...					
G. Monitoring and Self-evaluation Mechanism						
Academic Affairs and Quality Assurance division and ICT Project Unit in the Community College will assume the role of monitoring and evaluating the progress and quality of the project.						
H. Management Support and Key Personnel Involved						
Management support will be provided by the Academic Affairs and Quality Assurance division of the College						
The key personnel involved in this project include:						
Dr Edward Fung, Dean of the Community College and Further Education						
Ms Daisy Chow, Assistant Director, Academic Affairs and Quality Assurance						
Ms Olivia Kwok, Assistant Information Officer						
Dr John Chiang, Coordinator of the ICT Project Unit						
Mr Ho-Yin Cheung, ICT Project Unit and Programme Tutor of IT and Maths						
I. Special Justifications if the Grant Sought Exceeds \$2 million						

III Other information

1 Project Sustainability *(If applicable, please describe how the recurrent expenditure involved will be met after completion of the proposed project)*

2 Preparatory work done *(If any)*

3 Past experience in organizing projects of similar or relevant nature and achievements *(If any)*