II Project Information

Project Title (in English)	Project Title (in Chinese)
e-Assessment System for English and Putonghua Learning	

A.   Project Summary

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

The idea of developing a self-regulating and diagnostic e-Assessment learning system stems from our interaction with sub-degree students. We have noticed that severe problems in students' self-learning abilities in the mastery of both English and Putonghua after school. It is apparent that they have difficulty in locating and choosing the appropriate learning materials of a level they are comfortable with through a self-pace environment. They are always weak in the identification of their own English/Putonghua levels, not to mention they are not knowledgeable and confident enough to design an indivdualized study plan to meet their diverse learning needs and learning pace. What is even worse is that most of the self-access learning resources in English and Putonghua on the market are not well-classified according to the language abilities of the learners and the difficulty levels of the questions.   All the abovementioned can be seen as one of the main barriers for students nowadays to learn English or Putonghua independently outside the classrooms or to consolidate any effective work done inside the classrooms.

To address these issues, we would like to develop an online assessment learning system to enhance sub-degree students' self-learning abilities in the acquisition of English and Putonghua. The project aims to help individual students diversify and customize the various approaches to learning "how to learn" languages through self-directed, self-controlled and, to some extent, individually packaged "assessment" opportunities.   The purpose of doing so is to reshape their ideas concerning "assessment".   Assessment in whatever format has long been unwelcomed by students at all levels.   There is a misconception that they always regard assessment as a means to make judgments about student performance and allocate grades.   It has little, if anything, to do with learning.   In view of these considerations, we have felt for some time the urgent need for a self-improvement assessment system on the web that can be used to enhance student learning but not to produce grades for teachers.

Based on our previous teaching experience, the proposed e-Assessment system will be tailor-made for sub-degree students. It is conceived as a self-regulating assessment system capable of adapting to students' learning needs and learning pace. Users will receive questions in accordance with their ability levels in English and Putonghua. The item selected next fully depends on their performance on the previous question. If a user gets a correct answer with a given item, the next question generated will be slightly more difficult and/or subtly different from the existing one. If s/he gets the item wrong, the next item received will be slightly easier in linguistic and conceptual structure. By using the e-Assessment system, therefore, students can follow their own pace in learning English writing skills and Putonghua pronunciation with just-right step by step, almost natural challenges.

In addition, the system will be able to generate feedback on students' overall performance for both language teachers and individual students. Such information would also be useful in gauging individual students' language abilities, strengths and weakness, and therefore providing teachers a basis to re-visit topics in the face-to-face classrooms and develop follow-up prescriptive instruction accordingly. To provide further learning support to the users, immediate feedback such as detailed study guides with full explanations and illustrative examples, follow-up exercises for self-improvement purposes, and email addresses of English/Putonghua teachers for individual tutorial advice will also be available in the system.

This system does not intend to replace any of the existing formal, semester type assessments but to provide a supplementary aid to enhancing the teaching and learning of both English and Putonghua.

B. Project Objectives

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

The objectives of such an e-Assessment project include the following:

1. to produce a self-regulating online assessment system which can improve students self-learning abilities in the mastery of English and Putonghua;

2. to help students identify their strengths and weaknesses in English and Putonghua so that they can subsequently work out a personalized study plan for self-improvement;

3. to provide language teachers with a record of each student performance/progress on the on-line tests so that follow-up prescriptive work can be designed to reinforce day-to-day classroom learning;

4. to promote the beauty of "assessment for learning" and demonstrate how well-planned web-based multiple choice questions can be used to support the teaching and learning of English and Putonghua.

C. Outcomes and Deliverables of Project

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

We are confident that the e-Assessment system will be of immense value in the improvement of both English writing skills and Putonghua pronunciation among all sub-degree students in Hong Kong. In addition, any Cantonese learner of English / Putonghua can potentially benefit from the use of the system as well. **When completed, the software package will be delivered to the EDB so that it can be used by any members of the public, other educational bodies or libraries.**

Deliverables of the project will include but are not limited to the following:

1. A database of multiple choice test items along with accompanying explanatory text and follow-up exercises for English Academic Writing. It will be a repository of commonly made lexico-grammatical errors of sub-degree students in their academic essays. All the test items will be classified according to their lexico-grammatical types and ranked in difficulty.

2. A database of multiple choice tests items along with accompanying explanatory text and follow-up exercises for Putonghua Pinyin and pronunciation. It will be designed in accordance with the typical mistakes made by Cantonese-speaking sub-degree students. Putonghua sound files will be added to the individual test items to help users choose the best answer. All the test items will be calibrated with difficulty level based on the type of phonetic skills required.

D.　　　Implementation Details

The project will take 24 months to complete as shown in the schedule below:

Item	Name	Duration	2010				2011			
			Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qt2	Qtr3	Qtr4
1	Acquisition of hardware and software for the project	6 months								
2	Preparation of materials for test item bank	6 months								
3	Design and development of the database	6 months								
4	Additional entries to be incorporated into the item bank	6 months								
5	Development of the web interface	6 months								
6	Performing overall testing and modification	3 months								
7	Provision of training sessions for teachers and students	1 month								
8	Implementation of the e-Assessment system	9 months								
9	Evaluation of the e-Assessment system	6 months								

The project will be implemented in 24 months, with the first 18 months spent on system development and testing and the last 6 months on evaluation.

E.	**Implementation Schedule** *(Please extend this table if necessary.)*

Estimated start date of project:	_____January 1, 2010_____

Action *(please indicate key milestones)*	**Timeframe**	**Cashflow Requirement**
1. Acquisition of hardware and software for the project At the end of sixth month, the web server should be up and running while the testing of the software can get started.	January to June 2010	586,500
2. Preparation of materials for test item bank A total of 200 entries will be produced by each language professional concerned by the end of March 2010. Each entry in the item bank, including a question with a correct answer and two distracters, provision of accompanying explanatory notes and follow-up exercises. Validity testing using students as subjects will be carried out to generate early feedback.		
3. Design and development of the database Information to be added to the database will include the following records: test item, the item frequency, the student background, the student response, student ability, knowledge domain record and skill domain record. The beta version will be ready at the end of this stage.		
4. Additional entries to be incorporated into the item bank At the end of this phase, the number of test items along with accompanying explanatory texts and follow-up exercises should be increased from 200 to 800 entries in the item bank.	July to December 2010	472,500
5. Development of the web interface At the end of this stage, the prototype of the system ought to be ready for program testing.		

	January to June 2011	Cost will be borne by the College
6. *Performing overall testing and modification* A total of 30 students will be selected from each college for testing. Modification of the test items and revision of database will be made if deemed necessary. This will help to confirm and further test the entries as shown in box 2 above.		
7. *Provision of training sessions for teachers and students* Training workshops will be conducted to help the selected teaching staff and all students of the two colleges to become familiar and confident with the features of the e-Assessment system.		
8. *Implementation of the e-Assessment system* The e-Assessment system will be ready for a full scale launch at this stage.		
9. *Evaluation of the e-Assessment system* Apart from internal check-ups, a research paper on system evaluation and effectiveness will be made and presented at the international conference	July to December 2011	20,000

Estimated completion date of project: December 31, 2011

F.	Project Budget

Projected Expenditure *(Please provide detailed breakdown under each item)*	**Amount in HK$**					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
a. Manpower	945,000	255,000				1,200,000 (Amount to be borne by the College: $255,000)
b. Equipment	277,000	-				277,000 (Amount to be borne by the College: $164,000)
c. General Expenses	30,000	60,000				90,000 (Amount to be borne by the College: $89,000)
d. Others (e.g. conference activities)	-	30,000				30,000 (Amount to be borne by the College: $10,000)
Total Expenditure :						**1,597,000** (Amount to be borne by the College: $518,000)

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: $1,079,000

b.   Other sources of funding *(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) The two colleges will furnish the recurring cost of $360,000, i.e. $144,000 for expanded bandwidth and $216,000 of the Programmer's salary starting from Year 2.   In addition, the cost on training, general expenses and the registration fee of international conference (i.e. $158,000) will also be supported by the two colleges.

(ii)

(iii)

G. Monitoring and Self-evaluation Mechanism

Regular project check-ups and acceptance tests will be arranged from the beginning to the completion of the project. The senior management of the two colleges will play a vital role in the technical check-up while surveys and interviews will be conducted among the learners and language instructors in order to evaluate the pedagogic effectiveness of the e-Assessment system.

H. Management Support and Key Personnel Involved

The key personnel includes:

(a) the President of the two colleges;

(b) the two Deans of the two colleges;

(c) Head of Language Departments of the two colleges;

(d) Coordinator of Language centre;

(e) Head of the IT unit.

I. Special Justifications if the Grant Sought Exceeds $2 million

N/A

III	**Other information**

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

The two colleges will furnish $200,000 for this project.   The recurrent expenditure such as the purchase of servers and software (i.e. $193,000) will by absorbed by both colleges.   In addition, part of the manpower cost, for example, salary of the workshop trainer (i.e. $25,200) will be from the funding of the college as well.

2   Preparatory work done *(If any)*

The prototype of such an e-Assessment system has been developed by Prof. Kwan and his research team a few years ago.   A presentation on the study of the prototype was made at the First International Conference on Hybrid Learning at City University of Hong Kong in August, 2008 (A full paper has been enclosed in Appendix).   Though originally developed in the context of Mathematics mastery, we are confident that an e-Assessment system of this nature could also be used to support and reinforce the teaching and learning of other disciplines like English and Putonghua in this proposal.

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

The person in charge, Professor Philip Tsang, and the President of the two colleges, Professor Reggie Kwan, have extensive experience in leading e-learning projects in the universities they served before joining Caritas. They have published over scores of papers and many books in this area and they will be more than happy to furnish their CVs if needed. Ms Kat Leung joined their research team in the early part of 2008 and she has been creating self-paced learning materials published in SingTao Daily since early 2008.