Title of Project - Learning 2.0: an Online Platform and a Teacher Support Network for Curriculum and Assessment Innovation in Liberal Studies for the NSS Curriculum (Phase II)
學習 2.0：為支援新高中學制通識科課程及評估而建的網上學習及教師支援網絡 (第二期)

Submitted by Centre for Information Technology in Education, Faculty of Education, the University of Hong Kong

PART C PROJECT DETAILS

Background

During the period from Sept, 2008 to Aug, 2010, the Centre for Information Technology in Education (CITE) at the University of Hong Kong was funded by Quality Education Fund (QEF) to conduct a project namely "Learning 2.0: an Online Platform and a Teacher Support Network for Curriculum and Assessment Innovation in Liberal Studies for the NSS Curriculum" (hereinafter referred to as phase I project). The aim of the project is: (1) to design, implement, and evaluate a technical system for supporting enquiry learning in Liberal Studies (LS); and (2) to set up a teacher professional network for curriculum and assessment innovation. There are currently four participating schools in this project. These schools play a crucial role in the development of the interactive learning and assessment platform (iLAP) which is designed to support the learning and assessment process throughout the three years of LS studies in the NSS, including the IES component. During the first year (08-09), the basic functions and features of the platform have been developed and were tried out in the four project schools at S2, S3 and S6 levels. Teachers reflected that the iLAP is an appropriate teaching, learning, and assessment tool in LS as it includes the required functions for learning, management, communication and collaborative support. Sharing sessions and seminars were also conducted in June to introduce the iLAP to other teachers in the four schools and such a learning platform was well-received by them. Apart from this, two presentations on this project were made on March and June 2009 (at CITE Research Symposium and the 8th Online learning and teaching conference) and attracted much interest and attention from the teachers attending the conference, and some have made enquiries about participating in the project.

The first cohort of NSS students will be taking the LS from Sept 2009 to May 2012, and most of the schools will implement the independent enquiry study (IES) project in the year of 2011. As one of the key aims of the phase I project is to develop an interactive learning and assessment platform to help teachers in conducting LS lessons as well as inducting, facilitating and assessing students in their IES projects, and to help students throughout their process of conceptualizing, formulating, conducting and reporting on their IES projects, the phase I proposal was made on the understanding that it should be a 4 year project divided into two phases. That is, a proposal should be made to QEF for funding for the third and fourth year of the project if phase I is found to be successful. During the regular meetings and the interviews in school visits, seconded teachers reflected that the implementation of this project help them in managing and facilitating learning and teaching in the liberal studies. Both seconded teachers and principals support the project team to apply findings for the continuation of this project (phase II). In addition, at the Steering Committee meeting of the project on 29 June, the continuation and the scalability of the project has been discussed and it was agreed that the project team should apply for funding to extend the project to two more years and scale up to 10 participating schools (Details please referred to Appendix 1). The Steering Committee members were from various sectors of the education community which includes Principals from the participating schools, seconded teachers

representative, teachers from liberal studies association and government officials from the Curriculum Development Institute and the technology education section. Details please refer to Appendix 2.

In addition, teachers involved in the phase I project also indicated that it is difficult for them to collect evidence systematically on students' learning processes throughout the three years for each student. It is of value that the iLAP can be designed to support the collection and management of evidence on these aspects as well as providing some objective measuring tools for evaluating the quality of student performance in these areas. As Forster & Masters (1996) mentioned, "The more relevant the evidence, the more useful it is for inferring a student's level of achievement in a learning area." (p.2). Thus, the project team intends to implement a portfolio component in the phase II project. According to Arter and Spandel (1992):

> *"a portfolio... a purposeful collection of student work that tells the story of the students' efforts, progress or achievement in (a) given area(s). This collection must include student participation in selection of portfolio content; the guidelines for selection; the criteria for judging merit; and evidence of student self-reflection" (p.36)*

Apart from collecting evidence on students' learning processes, another challenge is to evaluate students' performance so as to provide objective criteria and standards that informs students' learning. The project team also intends to develop sets of rubrics that help teachers and students evaluate the generic skills as identified in the LS curriculum. As defined by Moskal (2000), rubric is:

> *...A set of scoring guidelines for evaluating students' work. Rubrics answer the following questions: by what criteria should performance be judged? Where should we look and what should we look for to judge performance success? What does the range in the quality of performance look like? How do we determine validity, reliability and fairly what score should be given and what that score means? How should the different levels of quality be described and distinguished from one another? (p. 154)*

In other words, the key components of a rubric usually include the rating criteria and the standards of attainment for those criteria (Arter & McTighe, 2001). Exemplars of students' work that illustrate these will also be selected and collated into a resource that supports the "Assessment for Learning" philosophy underpinning the present NSS curriculum.

Besides, in order that the practices of using the iLAP platform can be scaled up and a larger teacher- network which can support the curriculum and assessment innovations in NSS liberal studies can be developed, it is expected that the scope of phase II will include six more schools. In other words, a total of ten participating schools will form a strong teacher support network to share and disseminate good practices in LS emerging from this project.

1. Goals and Objectives

- To further develop the iLAP platform and to design and implement e-portfolio and assessment components as integral components in iLAP to support learning and teaching in LS as well as school-based assessment (SBA)
- To develop resources tools such as scaffolding tools and thinking tools to support enquiry learning in LS
- To identify key areas of generic skills that embedded in the LS and to design and implement assessment rubrics in these areas

- To set up repositories of pedagogies and assessment innovations that facilitate enquiry learning in LS
- To build up a teacher network that facilitates collaborations among schools and to develop a set of curriculum and assessment resources for the disseminations of good practices in using the iLAP.

2. Needs Assessment and Applicant's Capability

Needs Assessment

Phase II will address several important needs as identified by the seconded teachers and principals participated in Phase I as well as our observations. We highlight the four areas of needs that include the integration of portfolio in the iLAP, catering for students' individual differences, and pedagogical support.

Integration of Portfolio in the iLAP

Seconded teachers in the Phase I project pointed out that iLAP is a very powerful system which enables them to administrate and manage students' learning and achievement results in LS. However, a learning environment that enables students to build up their own learning portfolio like collating their own work and reflections is still lacking. It is of value that the iLAP can integrate the portfolio element in it so that each student can have their own portfolio that contains the artifacts and reflections in the learning processes. Teachers also indicated that this mode of portfolio can also be transferred and used in the Senior Secondary Student Learning Profile to record other learning experiences of students.

Catering for students' individual differences

The use of iLAP in learning and teaching LS will require certain levels of proficiency in information literacy. Thus, it is necessary for the schools and the project team to collect information related to students' and teachers' information literacy skills, as such a crucial indicator is essential for designing the learning activities from the pedagogical aspects.

Pedagogical support

Developing and assessing the generic skills

It is agreed that in Phase II, The project team need to work collaboratively with seconded teachers to identify some of the generic skills that embedded in the LS Curriculum and the linkage between the curriculum and at different stages of the IES project. Furthermore, we also need to develop rubrics in assessing students' performance that would help with the assessment of IES project.

Develop useful curriculum materials and encourage sharing and collaboration among seconded teachers

LS is a new subject in the NSS. Teachers partnering with us indicated that knowing how to use the iLAP to design learning and teaching activities and curriculum materials that can enhance the quality of learning and facilitate sharing and collaboration among teachers and students are important. It is expected that in phase II, at least six sets of learning and teaching materials can be developed and published on the web for LS teachers in Hong Kong to access.

Develop research tools for the enquiry learning in LS

All the seconded teachers involved in phase I agreed that IES and LS curriculum should not be treated as two separated components. Research tools that help students to learn in the LS curriculum and the IES project are essential. Research tools such as repositories, useful links, checklists and scaffolding tools on interviewing

skills, presentation skills, and different survey methods are helpful. Teachers also pointed out that a platform which includes such tools can provide them flexibilities in teaching different modules in LS, as different modules may have different focus and the needs of using different enquiry tools.

Professional development

Teacher professional development is also an important element in this project. Seconded teachers who have participated at the Phase I study reflected that they can get the most practical experiences from the sharing of frontline teachers. Besides, the professional development workshops provided [redacted] did broaden their views and perspectives in teaching liberal studies. In phase II, it is also anticipated these types of professional development will also be conducted so that teachers can updated their knowledge and skills in teaching Liberal Studies. In addition, the creation of the iLAP and curriculum materials and resources is anticipated to open to the public. Teachers can adopt and modify these resources that fit for their schools. Thus, the culture of information sharing and information exchange is highly encouraged. Apart from this, professional development workshops on using the iLAP to facilitate enquiry learning, using assessment rubric for assessing students generic skills in the context of six modules in LS as well as some vivid exemplars in enhancing learning and teaching LS via iLAP will also be conducted. In addition, via the lesson videos, other teachers can also review and discuss how technology can be integrated in the learning and teaching processes as well as the learning design for the LS lessons which is a significant kind of professional development for education community.

Applicant's Capability

Building on the related project and expertise in the centre

A team of colleagues and steering committee members participated in the Phase I project including officers from CDI liberal studies section and officers from ITE section, school principals, teachers from various liberal studies subject organizations as well as the [redacted] are willing to provide their knowledge and expertise in supporting the development of phase II in this project.

Building on the related project and expertise in the Faculty of Education, HKU

We will also consult a team of colleagues who will teach the bachelor degree in LS courses from the Faculty of Education, University of Hong Kong.

Besides, a team of colleagues from the Faculty of Education, University of Hong Kong led by [redacted] is currently commissioned by the EDB to develop an integrated framework for teaching and learning in LS. We will also seek feasibilities to incorporate the findings and results of this project.

Project Team

The project team is extremely well prepared for this project. First, CITE has an excellent track record in collaborating with the community to develop new educational technologies for assessing students' level of performance in emerging skills as well as new educational technologies for innovative teaching that promoting high order thinking skills.

For example, CITE was commissioned by the EMB to conduct a *Phase (II) Study on Evaluating the Effectiveness of the 'Empowering Learning and Teaching with Information Technology' Strategy (2004/2007)* on February, 2006. In this project, we have developed a set of rubrics in assessing students' information literacy in

three KLAs including mathematics, Chinese language and Science. In 2007, CITE was also commissioned by Microsoft as an evaluation partner for the Microsoft *Innovative Schools Program (ISP)* in Hong Kong. This project was to evaluate students' 21st century skills as well as innovation in learning and teaching.

Another example for the use of technology in promoting high order thinking is the development of an *Interactive Learning Network* (ILN), which is an award-winning learning management system. The team also has a decade of experience in conducting research and working with teachers to develop and disseminate good practices in knowledge building, reflection, and higher-order thinking. An on-going EDB-funded project, the Knowledge Building Teacher Network (KBTN for short), which builds on an earlier QEF-funded project (*Establishing a Scalable Network of Knowledge Building Schools*, project code 2003/0410), now in its second year, has been well received by the community and much appreciated by EDB colleagues. The KBTN project focuses on developing effective curriculum designs as well as scaffolding and facilitation strategies to support student-directed inquiry and has already yielded a diverse arsenal of teaching and assessment strategies, tested curriculum ideas and resources for supporting knowledge building. The teachers participating in this project has demonstrated through their practice that knowledge building is an approach that can be implemented in Hong Kong classrooms to support student inquiry and, at the same time, it can help students achieve better examination results. Requests from new teachers to join the network exceed substantially what we could have anticipated when the project proposal was submitted to the EDB just over a year ago. Finally, there is a considerable potential for generating spin-off projects and even dissertations that further put expertise on enquiry in schools, via the M.Sc. Programs in IT in Education and Library and Information Management and the M.Ed. in LS program in the Faculty of Education.

Another important strength in CITE is the expertise it has gained in knowledge management in education and in data-mining of computer-supported collaborative learning data, which is hard to find in combination with the strong pedagogical and learning technology expertise that CITE is known for. These are very valuable in helping to design and develop a system that can effectively support the archiving, management, pedagogical and assessment functions in an integrated system.

3. Targets and expected number of beneficiaries

It is expected that there will be two levels of the beneficiaries. Level 1 is the direct beneficiaries. The project will benefit all the seconded teachers, and teachers who are teaching LS under the NSS curriculum in those ten participating schools (4 schools are the phase I participants and act as mentor schools and the other 6 schools are newly joined schools). For students, at least one class of S4 students will benefit from this project (the actual no. of classes will depend on the participating school themselves, however at least one class of S4 is the requirement).

Level 2 is the indirect beneficiaries. This project will benefit those teachers and schools who will attend the workshops and sharing sessions organized by this project. Potentially, all Hong Kong schools can benefit from the project outputs as both the iLAP platform together with the various tools and curriculum resources developed in the course of the project will be available for use by all LS teachers in Hong Kong.

Conceptual framework

The whole project is based on an action research approach. It requires participating teachers to actively engage in a cyclical process that includes planning, practicing, observing and reflecting (Elliott, 1991; Lewin, 1946) on the development of curriculum materials as well as the development and implementation of iLAP in supporting the enquiry process in LS. Action research process began to find in practice that needs to be addressed and that, in the actual teaching and learning environment to make inquiry. In this project, teachers act as practitioners as well as researchers who engage in solving the problems encountered in their teaching activities in LS in NSS. Figure 1 presents the conceptual framework of the present study. In this framework, each participating school may have different implementation challenges due to the school's specific context. They will all go through the 4-step process as mentioned above. However, via the use of iLAP and the regular exchanges and sharing in this project, there are interactions among schools which facilitate knowledge exchange and sharing through the teachers' network as established in this project.

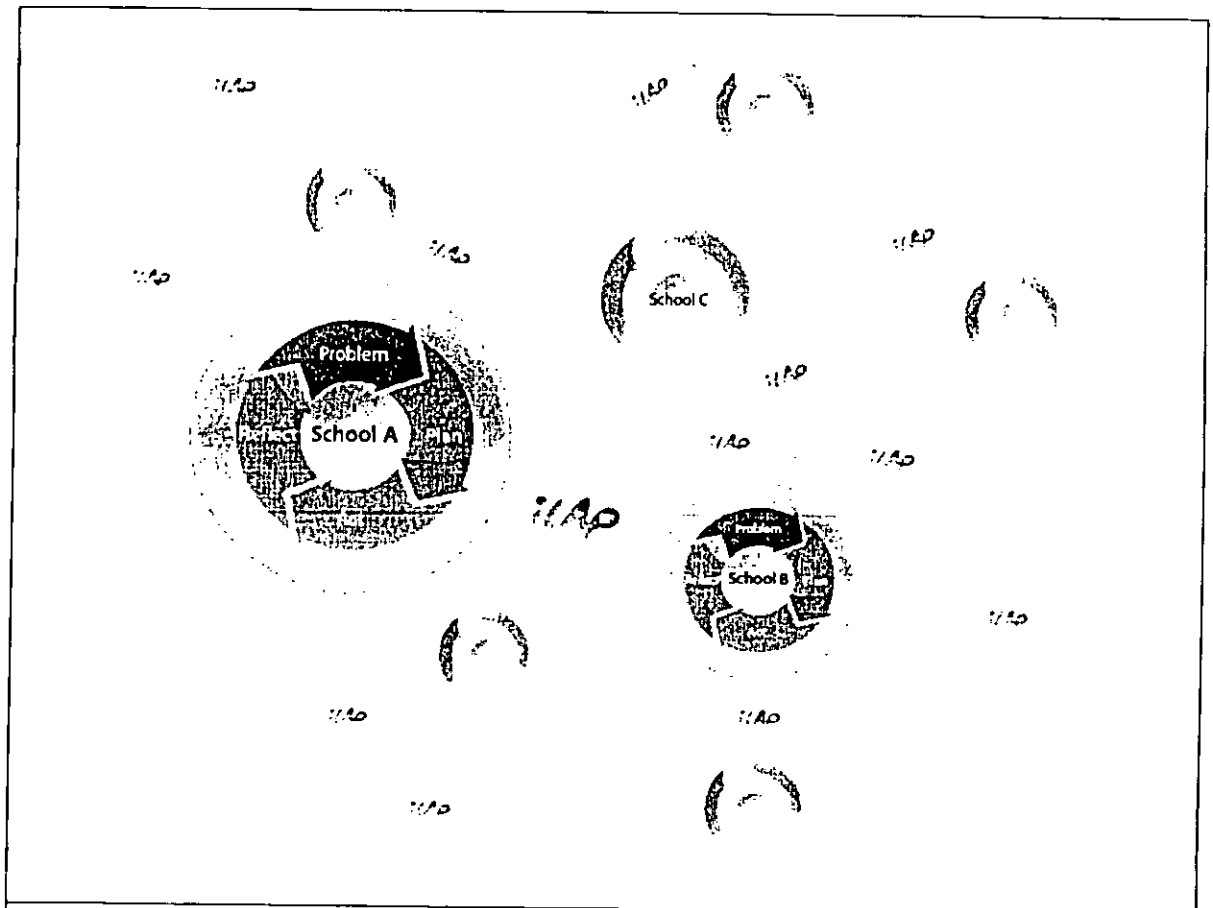

Figure 1 Conceptual framework of present study

Innovation

This project is innovative from four perspectives. Building on the strength of phase I, the first innovation is the development of learning technologies that involves teachers as a collaborative developer in an iterative process. This approach is quite different from prevailing software development processes in which the specification of a software is tightly defined through identifying user requirements at the start and then developed in-house and tested by potential users. Such a "rational" approach is only suitable when the user knows exactly what is needed and that the requirements are unlikely to change, which is certainly not the case here when teachers are still exploring how best to teach and assess in this subject. The advantage of the approach used in this project is 3-fold: (i) a much more user-friendly system, (ii) a system that will be amenable to further extensions by users,

and most importantly, (iii) the technology platform as well as the teacher network will be a valuable "blended" (or integrated) infrastructure for the dissemination and scaling up of the innovation. In addition, teachers in phase I also can take up the role as mentors in guiding those newly joined teachers in phase II.

The second innovation is in the area of assessment. The project is designed to support the emphasis on assessment for learning, and not just for selections and grading purposes. Hence, the assessment process should support student learning and help students to understand their own strengths and weaknesses as well as what their next steps should be, and how to take them. In line with this goal, the assessment method in NSS Liberal Studies Curriculum is quite different from the traditional one. It is not only for evaluating the end products of students' learning, but also the learning processes as well as using explicit criteria (rubrics) in assessing students' learning. Thus, another important innovation in this project is how to capture the learning processes and to use them as evidence for learning progress through the use of technology – the e-portfolios. The use of e-portfolios document the processes of students' learning, including earlier drafts, reflections on the process and barriers to learning throughout the course and at the same time it involves students in decisions making about the choice of inclusions and quality of work completed. This also emphasizes what the curriculum reform has been advocating – that students have a role to play in assessment, which is inline with the notions of assessment for learning and student-centered learning. In addition, the e-portfolio component of the iLAP can also be used in other subject areas such as for keeping students' track records for "Other Learning Experiences" (OLE) in NSS curriculum.

The third innovation is in the way the project is designed to support pedagogical and technological innovation as an intertwined process. As we all know, LS adopts an enquiry approach for teaching and learning and the content is structured around a range of important contemporary issues. Students are also involved in different ways of conducting their assignments such as shooting videos, doing presentation, engaging in discussion and collaborative work. Thus, the third innovation of this project is that via the teacher network, teachers can share and discuss the pedagogical issues that they have encountered and collectively to design learning and teaching activities that embed the enquiry learning elements in the respective learning context. Through collaborative design and development, sets of learning and teaching materials will be developed and tried out. It is expected that these materials will be available to all schools in Hong Kong (the details will be worked out through consultation with QEF, CDI and HKEdCity). Besides, lesson videos will be compiled to serve as valuable tools for dissemination and teacher professional development as well as for to stimulating further pedagogical design activities.

Lastly, the use of web2.0 technology in designing the platform is also a design innovation in education. Web2.0 technology emphasizes the interaction and collaboration among the users that in turn promote social participation and the creation of social networks. Apart from what we have mentioned in the previous paragraph that the use of web 2.0 platform can facilitate social networking between teachers, it also facilitate the social networking between students working on similar or different IES projects within and across schools.

4. Extent of Teachers' and Principals' involvement in the project

The project will use iterative cycles of design, implementation and evaluation to develop the systems, instructional materials, and practices. In this, teachers are much more than cooperating as implementation partners. Their role as collaborators is *essential* to the project, especially in contributing to the design,

implement and evaluation in each cycle. For example, collaborating teachers are expected to suggest specific functions in the technology, and give feedback on the usability, design, implementation and reflection on the lesson activities via the use of iLAP.

Principals are also important persons in this project as their decisions on school support and policy will affect the implementation of the project. Therefore, they will be invited to be one of the steering committee members in the project to monitor and evaluate the progress of the project implementation.

5. Implementation Plan with Time-line (Phase II)

Timeline of project implementation

Project period	Description	Project activities
Sept 2010 to Dec 2010	• Professional development • iLAP refinements • students' levels of performance in information literacy	• Professional development workshops on the use of iLAP will be conducted for the six new schools as well as for teachers from the 4 mentor schools new to the teaching of LS. • Design and implement further functions and resources in the iLAP to support LS teaching and learning and SBA assessment, particularly in the context of IES. • Conduct information literacy performance assessment with students
Jan 2011 to June 2011	• Develop curriculum materials • Implementation of at least one LS curriculum modules in S5 and IES via the iLAP	• Facilitate collaborative curriculum planning, development and assessment resources design of the seconded teachers for LS teaching and learning in general, and in particular for guiding IES projects • Organize inter-schools lesson observations as a professional development program
July 2011 to Aug 2011	• Revise curriculum materials	• Revision of all the materials, professional development workshops and dissemination seminars • Provide continuous support to seconded teachers for school-based professional development and evaluation and improvement in the quality of learning and teaching via the iLAP.
Sept 2011 to May 2012	• Develop curriculum materials • Implementation of at least one LS curriculum module in S6 and IES via the iLAP	• Facilitate seconded teachers to develop the curriculum and relevant online resources for LS and IES project • Organize inter-schools lesson observations as a professional development program
June 2012 to Aug 2012	• Preparation of the territory-wide dissemination of iLAP system • Project evaluation • Technical transfer	• Professional development workshops and dissemination seminars to present showcase of good practices in collaboration with LS team in CDI • Conduct project evaluation and prepare the deliverables • Organization workshops for school technicians and person in charge for the data and technical knowledge transfer to school

6. Expected Deliverables and Outcomes

There are three categories of deliverables:

Technology:

1. iLAP: An integrated learning and assessment platform which uses Web 2.0 technologies and contains custom designed learning tasks, curriculum resources and metacognitive scaffolds to provide archiving, management, pedagogical and assessment support for the entire NSS curriculum.
2. A teacher's guide for iLAP
3. A tutorial to demonstrate the main features of the iLPA with screen cast
4. An iLAP server guide for technical support staff

Curriculum materials/ achievement outcomes

5. Results of students' information literacy levels in the ten participating schools will be collected and each school would have their own school profile for their school improvement policy plan.
6. Rubrics for assessing those generic skills in LS will be developed.
7. Twenty proven and well documented learning and teaching resources and the suggested strategies/pedagogies and implementation in schools within the learning community in this project will be produced.
8. Resources tools for enquiry learning such as scaffolding tools, research tools will be developed.
9. Packages of resources such as developing critical reading skills, information searching skills as well as information management skills will be compiled.

Professional development

10. Professional development workshops for the LS teachers in the ten participating schools, focusing on the technical aspects of iLAP
11. Professional development workshops for the teachers in the ten schools, focusing on the pedagogical perspective of using iLAP to enhance the quality of learning and teaching in LS and other subjects
12. Two sharing events for all the teachers and principals in the secondary schools in Hong Kong in 2011 and 2012.
13. One large-scale dissemination event at the end of the project to disseminate the project outcomes to all Hong Kong schools

Apart from the above, experiences gain during the implementation of the NSS curriculum in Liberal studies in all the ten schools such as the requirement of school infrastructure, prerequisites of students' ICT capability as well as those pedagogical arrangements will also be documented. It is hoped that all the above deliverables can provide rich resources on the curriculum perspectives as well as provide detailed information on school levels for different schools and education community for the implementation of liberal studies for the NSS curriculum.

7. Budget for Phase II

		1 Sept 2010 - 31 Aug 2011 Year 1 (12 months)	1 Sept 2011 - 31 Aug 2012 Year 2 (12 months)	Total
1.	**Staff cost (Remark #1)**			
a.	Project Manager (1 Research Officer in Year 1 & Year 2) HK$34,553.00 per month (MPF inclusive)	$414,636	$414,636	$829,272
b.	Programmer (1 IT Officer in Year 1 & Year 2) HK$20,490.00 per month (MPF inclusive)	$245,880	$245,880	$491,760
c.	1 Research Assistant (1 Research Assistant I in Year 1 & Year 2) HK$16,905.00 per month (MPF inclusive)	$202,860	$202,860	$405,720
d.	Part Time Research Assistant I (Part Time Research Assistant I in Year 1 & Year 2) HK$50.00 per hour (MPF inclusive) (max. 500 Hours per year)	$25,000	$25,000	$50,000
e.	Media Designer (0.8 IT Officer in Year 1 & Year 2) HK$17,955.00 per month (MPF inclusive)	$215,460	$215,460	$430,920
f.	Senior IT Manager (0.25 Senior IT Manager in Year 1 & Year 2) HK$11,110.00 per month (MPF inclusive)	$133,320	$133,320	$266,640
	Sub-total	***$1,237,156***	***$1,237,156***	***$2,474,312***
2.	**Equipment & software licenses**			
a.	Notebook computer (1 Laptop)	$8,500		$8,500
b.	Printer (Remark #2)	$10,000		$10,000
c.	Backup & storage NAS (3~4TB)		$8,000	$8,000
d.	Software licenses (e.g. SPSS, Windows & etc.) (Remark #3)	$2,200	$2,200	$4,400
e.	AV equipments (e.g. Video & Audio recorders)	$8,000		$8,000
	Sub-total	***$28,700***	***$10,200***	***$38,900***
3.	**General Expenses**			
a.	5 Professional Development workshops (3 hours & 30 teachers each workshop) in each year	$44,000	$44,000	$88,000
b.	1 Dissemination seminar for each year (3 hours & 200 teachers each dissemination)	$40,000	$40,000	$80,000
c.	Travelling expenses & miscellaneous costs etc.	$35,000	$35,008	$70,008
	Sub-total	***$119,000***	***$119,008***	***$238,008***

		1 Sept 2010 - 31 Aug 2011 Year 1 (12 months)	1 Sept 2011 - 31 Aug 2012 Year 2 (12 months)	Total
4.	**Services**			
a.	Consultancy fee ((Remark #4) 6 consultants @$500 per hour in Year 1 (120 hrs in year 1) 6 consultants @$500 per hour in Year 2 (120 hrs in year 2)	$60,000	$60,000	$120,000
	Seconded teachers			
b.	Seconded teachers participating in the project (total 4 schools) 0.5 ST in Year 1 for each school at $11,992.50 per month, total 2 STs in Year 1 0.25 ST in Year 2 for each school at $5,996.25 per month, total 1 ST in Year 2	$575,640	$287,820	$863,460
c.	Compensation for 6 partnering schools to allow teachers to participate in meetings, visit other schools or participating in project work Each school can receive subsidy of - 40 teacher-days in Year 1 compensating the time that teachers have participated in the project ($1213 per teacher day) (Remark #5) - 20 teacher-days in Year 2 compensating the time that teachers have participated in the project ($1213 per teacher day) (Remark #5)	$291,120	$145,560	$436,680
d.	External auditor's report on expenses upon completion of project	$0	$35,000	$35,000
e.	Administration service charges provided by HKU (Remark #6)	$60,620	$60,620	$121,240
	Sub-total	***$987,380***	***$589,000***	***$1,576,380***
5	**Contingency**			
	~3%	$27,800	$27,800	$55,600
	Sub-total	***$27,800***	***$27,800***	***$55,600***
	Total per year	**$2,400,036**	**$1,983,164**	**$4,383,200**

Remarks

(1) & (4) Pay Scale of HKU for Non-clinical Academic Staff Scale is used here. The project team members will receive a fixed salary throughout the entire project period. The project team plans to deploy the existing Professional Staff (including project manager, programmer, one research assistant, media designer and senior IT manager) and consultants to take up the project roles.

(2) This price has exceeded the pricing standard of QEF. Although there are some low-end laser-jet printer for personal market. However, the memory installed and printing speed may not be able to meet with our office need to print large PDF files quickly. Moreover, this kind of personal printer may have a lower selling price but the toner cartridge cost will be higher on the other end. As a result, we still want to put an ordinary black and white business laser-jet in our budget. Our printing requirement is a 40ppm (page per minute) printer with both network duplex printing capability. Therefore, we would prefer keeping the printer budget as $10,000 to open up more printer options on the proposal.

(3) The fee for software licenses include the annual renewal of the Microsoft Windows license and SPSS software license for the project staff as according to the campus agreement.

(5) According to MPS for Aided/Got. School, the maximum points scale of a supply teacher is $1213 per day.

(6) This includes bookkeeping and management reporting, staff recruitment and retention, processing of applications and appointments, tendering and purchasing of equipment and supplies conducted by various administrative departments of the University. It also includes the cost for the use of library services, medical and dental benefits, email and computing services as well as the use of sports facilities for project staff.

Staff costs

This is a large project which will: (1) develop and refine a cutting-edge technological environment for supporting enquiry, collaboration, assessment; (2) develop user adaptable and extensible learning curriculum packages, and supporting resource tools; and (3) provide extensive professional development and establish a teacher innovation network for sustaining and scaling up the innovative practices and the use of technology platform to the wider school community. It requires high levels of expertise in several areas. As the overall system design and project management (technical) loads have been partly completed in phase I, the budgets for the technical requirement is comparatively smaller. Therefore, we require one full time programmer for further refinements and developments of the Platform and we propose to purchase technical support services to schools on regular basis for the management of the data based and the user-customization of the interface.

A full-time programmer is required throughout for developing the iLAP. This person must be an experienced developer of web-based software applications, including Web 2.0-based applications and open-source system. Both the technical and professional development aspects of the project require high levels of academic and professional input for the targeted goals to be accomplished.

A full-time project manager is needed throughout the project for liaising with the project team, including seconded teachers and their schools to ensure that the ideas and recommendations from the consultants are appropriately implemented. The project manager will also be responsible for overseeing the preparation of workshops and dissemination seminars, editing content and research tasks such as formative evaluations of the technical usability of iLAP, questionnaire design and analysis and interviewing. This person must have strong managerial skills, excellent communication skills in Cantonese as well as English, strong knowledge of curriculum reform in Hong Kong, and ability to conduct small research tasks independently. For this reason, a research officer is required.

We understand that an easy-to-use and user-customizable interface will be very important to ensure a highly satisfying user-experience. It is anticipated that 0.8 media designer is needed throughout the project. The media designer is needed for graphic design, website design and user interface design for the iLAP at the beginning of the project as well as modifying and adjusting the design according to teachers' suggestions during or after the project implementation. Besides, the media designer would also help in video editing as well as for multimedia production. He/she will work closely with the programmer to ensure the system design, user interface and functionalities meet the user requirements of the partnership schools.

A part-time (25%) Senior IT Manager is needed throughout the project and this person is responsible for supervising and managing the design and implementation of the iLAP platform and its components. He will oversee the design of the entire provision of technical services. The Senior IT Manager will work closely with the project team and the partnership schools in order to keep track of the project.

Additionally, in Phase II, more concern will be put on the pedagogical perspective, particularly in how to use the platform to enhance the quality of learning and teaching in LS. Therefore, more emphasis will be focused on the classroom practices throughout the Phase II study. Apart from this, the scale of the project is larger. It involved the participation of ten schools. Thus, two research assistants and one part-time research assistant will also be needed to assist the project team with the field evaluation of the platform and learning tasks/resources

as well as various research and curriculum development activities. The research assistants will also help provide timely support and feedback to schools.

It is essential that the project can support a talented team that is stable throughout the project. Because the economy is very strong and talented people have many opportunities in the private sector, we hope to create a project that will provide an exciting environment for the staff, with challenging tasks and excellent opportunities for professional growth. To retain people with good quality to work in this project, the salary must be competitive to the market price. This also helps the smooth implementation of the project if the turnover rate of project staff is reduced to the minimum throughout the whole project period. The grades of appointment we seek are necessary for all these reasons. The salaries are standard rates based on university salary scales for comparable appointments, including a 6% COLA and a modest salary increment which is normally given when staff have completed a performance review exercise according to the University regulations after each year of service.

Equipment

Though the setting up of a server for ILAP that can serve all the project schools and the development of the online platform and digital learning tasks and resources are core to the project, we have kept the hardware and software costs very low by using as far as possible open-source tools. The budget also includes basic equipments for conducting the project and modest costs for workshops for teachers and dissemination seminars, traveling and miscellaneous expenses.

Services

6 teaching members of staff in the Faculty of Education, including full and associate professors have agreed to provide consultancy and support to this project. The consultancy fee budgeted is minimal, to provide funds to consultants for buying-out of their teaching time, hiring of teaching assistantship and other forms of staffing support for them in their daily work at the University. The 6 teacher members have also provided consultancy service in Phase I project and they are very experienced researchers and have the needed knowledge and skills in guiding and providing stimulus and supports to the schools.

The project is carried out in collaboration with several secondary schools that have contributed significantly to the conceptualization of this project. Deep engagement of experienced LS teachers in the entire project process including the design of iLAP functions, the development of curriculum resources and activities as well as the evaluation of the online activities and resources through trial use with students is critical to the success of the project. Hence the secondment of experienced LS teachers to work in this project is extremely important. We have already obtained support from the principals of participating schools that they will arrange for their teachers to contribute in the project. Secondment arrangements may vary from year to year in the 4 mentor schools but the collaborating schools will work as a team so that together, 2 fte secondment will be shared among the mentor schools in years 1 and 2 of the project to allow for teachers participating in the project intensively during occasional periods of time. The seconded teachers will meet regularly with the project team to contribute to the design of the platform, give feedback to its functions, and assist in organizing professional development workshops and dissemination seminars. The salary rate for these follows the pricing standard of QEF. Regarding the remaining 6 partnering schools, in order to allow the involved teachers to participate in meetings, visit other schools for experience sharing or participate in project work, each school will receive

subsidy of 40 teacher-days per year in compensating the time that teachers have participated in the project.

8. Evaluation Parameters and Method

Evaluation of the project will focus on the quality of the deliverables. We will conduct formative evaluations throughout the project to assess quality. For example

- A steering committee including officers from LS team in CDI, principals, teachers and consultants to monitor and evaluate the progress of the project
- Questionnaires and interview will be used to evaluate the usability of iLAP
- We will demonstrate iLAP at seminars and conferences to gain feedback and seek an external peer review of iLAP and its associated materials (e.g., teacher's guide, content)
- We will try out the teacher's guide and the tutorials for the use of iLAP before actual launching to schools
- Both cognitive outcomes (what students learn) and the extent to which students reflect on their learning and use formative assessment results to improve learning will be examined as one of the students' learning outcomes in this project
- Questionnaires, interviews, and similar methods will be used to evaluate developing practices with iLAP among teachers to support and assess enquiry learning in the six LS curriculum modules.

9. Sustainability of the Outcomes of the Project

We expect the project outcomes to be sustainable and scalable. All the technical staff in those partnership schools have been trained therefore schools can manage those technical aspects by themselves and be able to scale up the usages of the platform in different levels as well as in different subject areas. A teacher guide and technical manual that clearly indicated the steps and procedures on the use of iLAP will also be available for each partnership schools.

The instructional materials developed in this project can be modified and extended by teachers as these materials will be uploaded for public to access.

In addition, iLAP and associated assessment materials will be flexible enough to be useful in other contexts than LS as well, such as School Based Assessment (SBA) in a variety of subjects and enquiry in science and mathematics teaching. The students' e-portfolios can also be used in other subject areas such as the OLE. The teacher network established for this project will also be a very important human resource infrastructure to ensure the scalability and sustainability of the project outcomes.

10. Dissemination / Promotion

The results of the project will be widely disseminated. We will have annual dissemination seminars at the end of Year 2. We will work in close collaboration with the LS team in CDI to plan such dissemination activities to ensure that appropriate follow-up actions and support could be given to teachers outside of the project schools who are interested in using iLAP in their own classes. We hope that the system can be available for being used by LS teachers in all secondary schools in Hong Kong and we will again work closely with EDB colleagues to work out the best way to achieve this. Obviously, arrangements need to be made with regard to the maintenance and support for the iLAP system after the project ends. CITE will conduct workshops for technical staffs in the ten schools to ensure that there is a knowledge transfer for the hand-over of the system as per instruction received from QEF at project completion.

References:

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Asset Usage Plan

Category (in alphabetical order)	Item / Description	No. of Units	Total Cost	Proposed Plan for Deployment (*Note*)
audio and video equipment	Video & 2 Audio recorders	1	$8000	*Will be used by the projects conducted by CITE, HKU*
book & VCD				
computer hardware	Notebook computer	1	$8500	*Will be used by the projects conducted by CITE, HKU*
	printer	1	$10,000	*Will be used by the projects conducted by CITE, HKU*
computer software	Software licenses (e.g. SPSS, Windows & etc.)	4	$4400	These are the campus licenses and it will only available within the project period that is 2010 to 2012
musical instrument				
office equipment				
office furniture				
sports equipment				
Others				

Note: for use by school / organization / in other projects (please provide details of the department / centre to which the asset will be deployed and the planned usage of the asset in activities upon project completion).

Report Submission Schedule

遞交報告時間表

I / My school / My organization commit(s) to submit proper reports in strict accordance with the following schedule:

本人/本校/本機構承諾準時按以下日期遞交合規格的報告：

Project Management 計劃管理		**Financial Management** 財政管理	
Type of Report and covering period 報告類別及涵蓋時間	**Report due day** 報告到期日	**Type of Report and covering period** 報告類別及涵蓋時間	**Report due day** 報告到期日
Progress Report 計劃進度報告 1/9/2010 - 28/2/2011	31/3/2011	Interim Financial Report 中期財政報告 1/9/2010 - 28/2/2011	31/3/2011
Progress Report 計劃進度報告 1/3/2011 - 31/8/2011	30/9/2011	Interim Financial Report 中期財政報告 1/3/2011 - 31/8/2011	30/9/2011
Progress Report 計劃進度報告 1/9/2011 - 29/2/2012	31/3/2012	Interim Financial Report 中期財政報告 1/9/2011 - 29/2/2012	31/3/2012
Final Report 計劃總結報告 1/9/2010 - 31/8/2012	30/11/2012	Final Financial Report 財政總結報告 1/3/2012 - 31/8/2012	30/11/2012