

Part C Project Details**(a) Background**

Curriculum reform in Hong Kong addresses a renewed perspective of the aims of school education. As the new millennium unfolds, educators all over the world are contemplating how best to prepare our younger generations for productive and fulfilling lives in the 21st century. In view of the knowledge and skill deficit for promoting a thinking curriculum (ASCD, 1988; Swartz, 2002), there is a demand on providing support and professional development for the teaching and learning of higher-order thinking skills in schools.

The new curriculum reform launched by the Education Bureau (EDB) in Hong Kong at the start of the century (CDC, 2001) is geared towards better preparation of our students to new era. It calls for a holistic child-centered curriculum focusing on the cultivation of the natural learning habits and capacities of the child (Kennedy, 2005). It is becoming more imperative that individuals are capable of thinking independently, divergently and creatively so that they are able to be productive citizens and workers for the collective goodness of their society. To accomplish all these goals, higher-order thinking (HOT) is needed and higher-order thinking skills (HOTS) of students must be developed. HOTS include creativity, problem solving and critical thinking, etc. These skills are reflected in the '9 generic skills' of the school curriculum reform (CDC, 2001, p.22).

With the implementation of the new curriculum framework which promotes the cultivation of higher-order thinking, many schools are not adapted to putting the innovative ideas into practice or not well equipped to preparing their students to become independent, creative and critical thinkers. The "quantitative tradition" and therefore over-emphasis on transmission of "book knowledge", examination skills consistently turns to become a hindrance to successful paradigm shift of curriculum models as well as teaching and learning of children in Hong Kong (Biggs, 1996). Many local teachers are still espousing and practicing quite narrow, restricted definition and conceptions of curriculum and teaching (Adamson & et al., 2000).

Our school therefore wishes to embark a school-based project to foster HOT in General Studies classrooms. It is believed that with the project, our school teachers' professional competency in teaching HOT and General Studies would be enhanced. The curriculum and teaching of General Studies in our school would be activated and improved.

(b) Project goals and objectives

- To develop students' higher order thinking skills through curriculum development in General Studies;

- To develop/enhance teachers' pedagogy and assessment strategies for infusing higher order thinking skills in teaching General Studies,
- To establish evidence-based packages to help teachers plan, create and deliver higher order thinking curriculum; as well,
- To explore assessment strategies that would help catering for learners' difference in HOT classrooms;
- As one school-based endeavor, helps changing the culture of school to become a community of learners; thus
- To extend the above-said professional capability to teaching of all other subjects in primary curriculum;

(c) Project Description

A school-based approach will be adopted. In details, this proposed project will contain two phases, namely Phase 1: the pilot term and Phase 2: the implementation stage and Phase 3: the time for dissemination and publication. The pilot term begins from 2nd term of the school year 2010-2011; phase 2 and 3 lasts from August 2011 to Dec 2012. During the first phase, school-based teacher training program would be undertaken to develop teachers' knowledge and competency in teaching HOT in General Studies. A university professor would be invited to conduct a series of teacher development seminars with regard to HOT and its teaching, assessment for General Studies classrooms. After that, the team of teachers would collaboratively develop a curriculum plan for pilot try-out on one to two units in General Studies in P.1 to P.6. The curriculum package should consist curriculum plan, teaching design and assessment strategies with assessment tools and performance indicators on selected HOT; these curriculum materials would then be implemented in G.S. classrooms; the team of teachers would concurrently conduct peer observation of the HOT lessons, with peer observation records kept for reference. Concurrently, teachers would keep students' learning evidences such as samples of work for future reference; and, each team teacher keeps building own professional portfolio with the specific focus: "HOT in G.S. teaching" (writing professional journals, collection of artifacts, dropping peer observation records in the portfolio, etc.). By the end of the first phase, internal and external evaluation would be conducted to review the effectiveness of this pilot experimentation. Teacher sharing seminars would be held to share the outcomes of the pilot endeavor.

Having accumulated experiences from the first phase, the team of teacher would put HOT in actual implementation to G.S. classroom in the second phase. This stage is actually an accelerated phase of implementation, for the team of teacher would enrich the project plan to become really school-based and to be more capable to cater for individual differences in classrooms. In the first place, a situational analysis would be taken to analyze the needs of both teachers and students. Such needs analysis is important for the team of teachers to understand how students are different in their

interest, prior knowledge and also cognitive ability in thinking skills. The information got from the analysis is useful for teachers to design curriculum to cater for diversity in learning. When all curriculum materials are designed, actual implementation takes place in the school year of 2011-2012. Simultaneously, teaching and learning evidences would be collected; on-going peer observation, post-lesson formative evaluations would be taken. By the end of the second phase, summative evaluation would be carried out—this includes evaluation of students' learning outcomes, team's evaluation meeting, plus external review by a university professor.

The third phase is the stage to consolidate the project outcomes. Teachers would work in collaboration to prepare and publish evidence-based teaching packages on HOT teaching in G.S. The project team would also disseminate the project output with school teachers internally and externally to the school.

(d) Implementation Plan

Project period: April 2011 to Dec 2012

The project will be consisted of three phases, the first phase will take one school term while the second and third phase will take one year.

Action plan with time-line

Phase One: Teacher training, Preparation, Piloting and Reflection

April 2011– end of May 2011	<p>Invite university professor to conduct teacher development workshops for school teachers; the workshops would include themes as the following:</p> <ul style="list-style-type: none"> • Basic theory and concepts of HOT • Selected HOT strategies and their implementation in teaching and learning • Assessment for learning: strategies to assess HOT of students <p>Literature review and preparation:</p> <ul style="list-style-type: none"> • Curriculum development on HOT, select one to two topics from General Studies syllabus and put theory of HOT in design; • Designing instructional plans, teaching materials, activities and resources for teaching HOT; • Designing assessment strategies and criteria to assess students' outcome of HOT learning.
May 2011– June 2011	<p>Pilot implementation, peer observation and formative evaluation of the implementation:</p> <ul style="list-style-type: none"> • Implementation of the HOT teaching plans in classrooms; • the team of teachers would concurrently conduct peer observation of the HOT lessons, with peer observation records kept for reference; • collection of students' learning evidences such as samples of

	<p>work for future reference;</p> <ul style="list-style-type: none"> • at the same time, each team teacher keeps building own professional portfolio with the specific focus: “HOT in G.S. teaching” (writing professional journals, collection of artifacts, dropping peer observation records in the portfolio, etc.): • The team of teachers would hold team meetings to evaluate the effectiveness of such implementation, instantly and constantly after each HOT lessons.
June – July 2011	<p>Summative evaluation and teacher sharing seminar:</p> <ul style="list-style-type: none"> • The team of teachers would summarize the effect and impact of this pilot endeavor, then share the outcomes with other school teachers and collect their views/suggestions; • Would invite a consultant from local universities to execute external evaluation of this pilot experience; • Team leader coordinates the views and perspectives of the team for preparing a brief interim evaluation report for the project; • The team of teachers would then work collaboratively to draft plans for improvement in the next phase.

Phase Two: Implementation, acceleration and evaluation

End of August to early Sept 2011	<p>Situational analysis and preparation</p> <ul style="list-style-type: none"> • Situational analysis, such as the competency and readiness of teachers to teach HOT; students’ prior knowledge and cognitive ability in thinking skills; students’ interest and motivation of learning General Studies, more important, to identify the individual differences among students; • Development of HOT curriculum packages for teaching selected HOTs in selected units in General Studies for P.1- P.6. The curriculum package would include instructional plans, teaching guides, activity worksheets and other resources; as well as assessment plan, resources and rubrics • Acceleration: the curriculum design at this stage would also focus on adopting strategies to cater for individual differences in classroom
Sept 2011 to end of May 2012	<p>Implementation and collection of teaching and learning evidences</p> <ul style="list-style-type: none"> • Enactment of the curriculum design, • peer observation of HOT teaching; • constant post-lessons formative evaluation, • collection of exemplars and samples students’ work; • constant records of students’ learning progress; • and continuous construction of professional portfolios (similar practice with the first phase).

June 2012- July 2012	<p>Summative Evaluation and Report writing</p> <ul style="list-style-type: none"> • Evaluation of students' learning by the end of the project – to evaluate if there is advancement or change of motivation, interest and academic achievement on General Studies; also, if there is any progression of HOT of the students after experiencing HOT teaching. • Internal evaluation meeting will be held, as a summative evaluation of the project outcome, a brief written report will be prepared by the team; • External evaluation report would be prepared by an external reviewer (the university consultant) invited by the school
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Phase three: Dissemination and publication

Aug – Dec 2012	<p>Dissemination, publication and research</p> <ul style="list-style-type: none"> • Dissemination of the project outcome, internally with school teachers and externally with other primary schools in Hong Kong • Preparation for publication: of evidence-based teaching packages, CD-Rom ,etc. • A survey of the perception of the school teachers toward the project, HOT in teaching G.S., etc.
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(e) Select topics from General Studies syllabus and put theory of HOT in design:

Level	Topics
Pr.1	我們的五官
	安排每天的生活
	家居安全
Pr.2	編排餘暇活動
	齊賀新春
	和諧社區
Pr.3	精明的消費者
	綠化社區
Pr.4	口腔健康
	香港早期歷史
Pr.5	預防物質濫用
	認清傳媒
	中國古代大事

Pr.6	處理情緒和壓力
	世界人口問題

(f) Expected number of beneficiaries

Expected direct beneficiaries:

- All teaching General Studies teachers of the school will benefit from attending professional seminars provided by an Institute consultant on Higher Order Thinking skills and its teaching strategies.
- The team of teachers (about 13 persons) who join the project will benefit from working in a collaborative culture; they will share ideas and work together with colleagues in designing and implementing the HOT curriculum and teaching.
- In estimation, about 700 Students (Pr.1-6) will directly benefit from this project – i.e. development of higher-order thinking skills.

Expected indirect beneficiaries

- All primary teachers and students in Hong Kong can benefit from the dissemination activities and publication derived from this project.

(g) Expected products

- Production of teaching packages and a CD Rom on Higher Order Thinking curriculum in General Studies; they will include collection of HOT teaching and assessment strategies in G.S.;
- Production of assessment materials on HOT (G.S.), which could cater for individual differences in learning;
- Dissemination of the project outcome with teachers of other primary (e.g. Canossa's school community, etc.), or in local/regional conferences (e.g. conference hosted by Hong Kong Education City);
- Student portfolios comprising of their learning outcomes from the project;
- Professional portfolios embracing teachers' reflection, students' exemplary learning evidences, peer observation notes, significant photos and other pertinent records and findings of this project;
- By the end, a survey report on the knowledge and perception of the school teachers toward the project and HOT in G.S.

(h) Budget

1.

Items for Expenditure			Quantity	Budget
1.	Staff Cost Salary (\$385,800)	Supply teacher (Non-graduate): To lessen the teaching loads of the three responsible teachers and let them engage in the project	1	$19945 \times 12 \times 1.05$ (MPF) = \$251307
2.		Teaching Assistant: Technical support of the project , e.g. preparing handouts ,video shooting & editing ,and assist preparing of deliverables for the project	1	$\$8000 \times 16 \times 1.05$ (MPF) = \$134400
3.	General Expenses (\$27,500)	Reference books		\$1500
		Producing of deliverables ,e.g. CD Rom and teaching packages of the sharing session	1000 CD Rom	\$4000
			1000 teaching packages	\$20000
4.		Sharing sessions to disseminate the results (ALL Primary School)		\$ 2000
5.	Equipments (\$4,500)	Digital Video Camcorder(800MPG)	1	\$4500
Total				\$417,707
Grand Total				\$417,800
(Round up to the nearest hundred dollars)				

2. Asset Usage Plan

Category (in alphabetical order)	Item Description /	No. of Units	Total Cost	Proposed Plan for Deployment (Note)
audio and video equipment	Digital Video Camcorder(800MPG)	1	\$4500	The equipment would be used for future program development of General Studies and other subjects in the school. It is also a useful equipment of the school to conduct learning studies /action research.

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).

(i) Report Submission Schedule

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

Project Management		Financial Management	
Type of Report and covering period	Report due day	Type of Report and covering period	Report due day
Progress Report 1/4/2011 - 30/9/2011	31/10/2011	Interim Financial Report 1/4/2011 - 30/9/2011	31/10/2011
Progress Report 1/10/2011 - 31/3/2012	30/4/2012	Interim Financial Report 1/10/2011 - 31/3/2012	30/4/2012
Progress Report 1/4/2012 - 30/9/2012	31/10/2012	Interim Financial Report 1/4/2012 - 30/9/2012	31/10/2012
Final Report 1/4/2011 - 31/12/2012	31/3/2013	Final Financial Report 1/10/2012 - 31/12/2012	31/3/2013

(j) Assessment of the project outcomes and Evaluation parameters

To evaluate the effectiveness and impact of the project, the following assessment methods would be used:

1. To evaluate the development of HOT of students, we would implement both *formative* and *summative assessment*. To achieve this purpose, we would make reference to scholars' recommendation such as Bloom's taxonomy of educational objectives (Anderson & Krathwohl, 2001) and Costa & Kallick's (2000) habits of mind theory to develop a set of assessment tools and rubrics.

- (a) Formative assessment: the evaluation process would involve students' self and peer assessment, together with teacher assessments. The focus of evaluation would include formative assessment of students' learning

evidences with HOT, such as samples of worksheets, activity/discussion records, mini-projects, presentation and their lesson participation/performance.

- (b) Summative assessment: evaluation of students' summative learning outcomes by the end of the project. We would conduct simple thinking test to evaluate students' performance in higher-order thinking skills.

Evaluation parameter: we aims at helping at least 70% of students will show significant positive change in their higher order thinking ability.

2. To evaluate if students have shown advancement of motivation, interest and academic achievement in General Studies because of this HOT project, we would construct a simple questionnaire and summative test on General Studies. On top of these, we would employ student interviews (focused group interviews) to collect opinions/views of students.

Evaluation parameter: we hope to see that 70% of students will show improvement in all these aspects by the end of the project. We also wish to understand how students perceive and how they could benefit from HOT teaching.

3. External review by an invited, university expert in HOT curriculum and pedagogy
A university lecturer whose specialism is in HOT and curriculum development/evaluation would be invited to as act the external evaluator of the project;

- The external assessor would visit our project team's classroom from time to time so as to scrutinize teachers' development of HOT pedagogy plus the implementation of assessment strategies. However the lecturer may have tight schedule with her teaching and other workload in the university, we would provide her with video records of all such HOT classroom teaching to facilitate his/her evaluation;
- This external assessor would also be invited to review the quality of our HOT curriculum packages, publications (CD-Rom, etc.), students' samples of work, teachers' professional portfolios, our meeting and internal evaluative reports;
- She would also prepare a final external evaluation report on our project.
- *Evaluation parameter:* we expect good to outstanding comments from the external assessor and will be eager to receive suggestions for further improvement.

(k) How the HOT teaching in General Studies can be sustained beyond completion of the project

The outcomes of the project will illustrate the professional development of the staff. Naturally, the teachers will continue adopting the HOT pedagogy and assessment

strategies in their classroom practices. Workshops on HOT will be conducted for new teachers in our school. On the whole, experiences and pedagogical knowledge accumulated from the project experience would continuously empower the professional and community in the school.

(l) Dissemination/publicity methods

Dissemination of the project outcome, internally with school teachers and externally with other primary schools in Hong Kong. Teacher packages will be distributed to the participating schools.

(m) To provide a brief introduction of the applicant school and the University Consultant

School Description

The School is a subsidized Catholic girls' school. It was founded in 1900 by the Institute of the Canossian Daughters of Charity, a Catholic Religious Institute whose Foundress is St. Magdalene of Canossa. There are 24 classes and we have a population of around 750 students from Primary 1 to 6. We have become a whole day school since 2003. The School permitted to implement the "through train" mode as from 2011–2012. Primary 6 students are promoted to St. Mary's Canossian College.

School Mission

Canossian Education aims at developing students' integrity and gospel values through a balanced programme which recognizes the need for growth in attitude, knowledge and skills through moral, intellectual, social, physical, spiritual and aesthetic development.

The development of General Studies in St. Mary's Canossian School

Our school has started to implement collaborative lesson planning in General Studies since 2006. Now this practice has been well established at all levels (from primary 1 to primary 6). The team of G.S. teachers is now fully competent to infuse inquiry approach in teaching General Studies; they are also effective to enhance various generic skills when teaching the subject content. Besides these, the subject has also adopted the innovation of 'learning portfolio' since 2006-2007. By guiding students to construct their personal learning portfolios on G.S., both teachers and students have got a successful experience from the implementation of this new trend of assessment. During 2008-2009, a team of p.3 G.S. teachers worked in partnership with a research team from the Department of Curriculum and Instruction, Hong Kong Institute of Education, in a collaborative project about instilling higher-order thinking (HOT) in teaching of General Studies. This is in part an action research project. Teachers got fruitful professional outcomes from joining

this project. They have deliberated effective ways to put into practice the theory and concepts of HOT to teach General Studies. In order to integrate HOT teaching to the entire G.S. curriculum (a vertical curriculum development of General Studies from p.1 to p.6), our school intends to devote further efforts in the coming two years to investigate into the value and plausibility of this capacity. In this new phase, we aim to develop a school-based, subject-specific framework in teaching and assessing HOT in General Studies.

The University Consultant

is currently an Assistant Professor of the Department of Curriculum and Instruction, Hong Kong Institute of Education. As a teacher educator for fifteen years, she contributes her best to local education. Dr s major academic interests include curriculum change and implementation, curriculum integration, teacher thinking and school-based curriculum development. She keeps working closely with schools as collaborative partners by taking active roles as curriculum consultants, external school reviewers (ESR) and guest speakers for teacher development. She has been involved in a number of school-based research projects and training programmes related to action research on implementation of activity approach in regular classrooms, inquiry-based curriculum development, quality homework, etc. Her more recent academic pursuits include studying the implementation of higher-order thinking curriculum in small class teaching settings. Besides, Dr. constantly presents papers in local and international conferences, and writes newspaper articles on local curriculum issues. She also succeeds in publishing articles on international journals.