

## 優質教育基金研究計劃推廣研討會

“透過 Web 2.0 推動高小程度探究式專題研習的協作教學模式”

### QEF Project Dissemination Symposia

“Applying a collaborative teaching approach to inquiry project-based learning with Web 2.0 at upper primary levels”

日期 Date	2011 年 6 月 30 日 (星期四) 30 June 2011 (Thursday)
時間 Time	上午 9 時至下午 12 時 45 分 9:00 am – 12:45 pm
地點 Venue	香港薄扶林道香港大學邵仁枚樓 205 室 Room 205, Runme Shaw Building, The University of Hong Kong
語言 Language	廣東話及少量英語 Cantonese and some English
費用 Admission Fee	免費 Free of charge
報名方法 Registration	網上登記: <a href="http://qefpbl.eventbrite.com/">http://qefpbl.eventbrite.com/</a> Online registration: <a href="http://qefpbl.eventbrite.com/">http://qefpbl.eventbrite.com/</a>
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## 簡介 Introduction

這項由優質教育基金（QEF）撥款的計劃，由常識科、圖書科、中文科和電腦科四科老師共同協作，帶領高小學生完成探究式專題研習，並在推行上有不錯的效果。

本計劃旨在透過嶄新的教學模式，由跨學科老師協作教學，並利用 Web 2.0 工具，以推動同學進行探究式專題研習，從而促進學生整合從各學科學到的知識和技能。計劃目標包括：一、在四所本地小學推行協作式專題研習；二、為教師提供專業培訓及相關支援，協助他們推行新的教學方法；三、通過網上學習，提高學生的資訊素養及媒體素養；四、通過計劃，學生可望提高以下八方面的技能：閱讀理解、寫作能力、資訊素養、資訊科技知識、學科知識、待人接物與溝通能力、表達能力及研究技巧。

在本學年，參與學校的小五學生利用 Google 協作平台進行常識科的專題研習及英文科的協同寫作。在是次研討會中，研究小組成員和來自四間參與學校的老師將會分享他們在實踐這套嶄新教學模式時的第一身經驗。

In this Quality Education Fund (QEF) funded program, teachers of four subjects: the General Studies, Teacher librarians, Chinese Language and IT worked together to scaffold upper primary students in their inquiry project-based learning. The implementation of the new teaching mode had led to satisfactory results.

The project aims to promote the integration of students' knowledge and skills across discipline areas through a new mode of teaching and learning, where teachers work collaboratively as a team and students take part in inquiry project based learning (PBL), enhanced with Web 2.0 tools. The objectives include (1) implementing the collaborative inquiry PBL approach in four local schools; (2) conducting suitable training programs for the teachers and providing adequate scaffolding support to equip them with the skills to implement this new teaching and learning method; (3) heightening students' information and media literacy skills through an online learning environment; and (4) strengthening students' abilities in the following eight dimensions: reading comprehension, writing, information literacy, IT, subject knowledge, communication, presentation, and research.

In this academic year, P.5 students from the participating schools make use of Google Sites in General Studies Inquiry project-based learning and English collaborative writing. During the symposia, the Principal Investigator, Co-Investigators and teachers from the four participating schools will share their experience in putting this new teaching mode in practice.

## 目標觀眾 Who Should Attend

校長、教師、圖書館主任、教育工作者及家長

School principals, teachers, librarians, educators, and parents

## 活動詳情 Program Rundown

Time	Activity	Speaker
09:00 – 09:15	登記 Registration	
09:15 – 09:25	致歡迎詞 Welcoming address	朱啟華博士 Dr Samuel Kai Wah Chu
09:25 – 09:45	於小五透過協作教學模式推行應用 Web 2.0 技術作探究式專題研習 Inquiry project-based learning with wiki at primary 5 level with a collaborative teaching approach	朱啟華博士 Dr Samuel Kai Wah Chu
09:45 – 10:05	經驗分享 — 嘉諾撒小學及中華基督教會基法小學 利用 Google 協作平台進行常識科探究式專題研習 Sharing from Canossa Primary School and CCC Kei Faat Primary School: Using Google Sites in collaborative inquiry projects in General Studies	方志新老師 (電腦科主任兼常識科老師) 余澤濤老師 (課程發展主任兼電腦科老師) Mr Fong Chi Sun (IT panel and GS teacher) Mr Yu Chuek To (Curriculum Development Officer and IT teacher)
10:05 – 10:25	探究式專題研習是否能實現價值觀(個人和社會)及態度的發展? Would the development of (personal and social) values and attitudes be still achieved by conducting the inquiry based learning online?	蕭勵中博士 Dr Felix Siu
10:25 – 10:45	經驗分享 — 長洲聖心學校 利用 Google 協作平台進行英文科協同寫作 Sharing from Cheung Chau Sacred Heart School: Using Google sites in English Collaborative Writing	馮國任老師 (英文科副主任) Mr Fung Kwok Yam (English vice panel)
10:45 – 11:15	小休及茶點 Networking break and refreshment	

<b>11:15 – 11:35</b>	利用 Google 協作平台推廣英文科協同寫作 Experimenting with English collaborative writing on Google Sites	Ms Nicole Tavares
<b>11:35 – 11:55</b>	經驗分享 — 順德聯誼總會胡少渠紀念小學 [上午校] 在教學上應用 Web 2.0 技術的困難及學生如何看待和使用 Google 協作平台 Sharing from STFA Wu Siu Kui Memorial Primary School [AM]: Challenges of using Web 2.0 technologies in education and how students perceive using Google Sites	羅皓章老師 (電腦科兼常識科老師) Mr Law Ho Cheung (IT and GS teacher)
<b>11:55 – 12:15</b>	教師作為研究人員和教師的專業發展 Teachers as researchers and the development of teacher professionalism	周志堅博士 Dr Ken Chow
<b>12:15 – 12:30</b>	問答時間 Q & A	首席研究員、協作研究員及教師 PI, CoIs & teachers
<b>12:30 – 12:35</b>	致閉幕詞 Closing address	朱啟華博士 Dr Samuel Kai Wah Chu
<b>12:35 – 12:45</b>	拍照留念 Photo taking	

## 研究小組成員簡介 Bios for Principal Investigator and Co-Investigators

### 首席研究員 Principal Investigator

#### 朱啟華博士 Dr Samuel Kai Wah Chu

朱啟華博士是香港大學教育學系的助理教授（資訊及科技教育部）及教育應用資訊科技發展研究中心的副主任。他在資訊素養及資訊搜尋、Web 2.0 應用於學與教、探究式學習及知識管理各方面都有不少著作。朱博士獲得不少研究基金，包括由優質教育基金提供的三百萬港元研究基金，他亦是香港大學教育學系早期職業研究成果獎的得主。

Dr Chu is Assistant Professor (Division of Information & Technology Studies) and Deputy Director (Centre for Information Technology in Education) in the Faculty of Education, The University of Hong Kong. He has published widely in the areas of Web 2.0 for teaching and learning, inquiry-based learning, knowledge management, information literacy and information seeking. Dr Chu holds a number of research grants, including a 3-million-dollar Quality Education Fund, and is a recipient of his Faculty's Early Career Research Output Award.

### 協作研究員 Co-Investigators

#### 周志堅博士 Dr Ken Chow

周志堅博士是現任嘉諾撒聖心學校的校長，亦曾任嘉諾撒小學的校長。在這之前，他曾在教育局及其他專上學院任職。作為一名研究員、教育工作者和學校領導者，周博士通過講學、應邀演講和出版著作分享他的專業經驗。他的研究興趣包括教學實踐、教師專業、體育心理學以及體育教育。

Dr Chow is the principal of Sacred Heart Canossian School and the former principal of Canossa Primary School. Before these engagements, he serviced and held various positions at the Education Bureau and other local higher institutions. As a researcher, a teacher-educator and a school leader, Dr Chow shares his professional experiences through lectures, invited speeches, presentations and publications. His research interests include areas in teaching practices, teacher professionalism, sport psychology and physical education.

#### Ms Nicole Tavares

Ms Tavares 是香港大學教育學系的教學顧問，為促進大學內外教師職前和在職專業發展作出積極貢獻。她曾任全港性系統評估小三及小六英語試卷首席考官，亦在香港考試及評核局擔任重要職位。她的教學及研究領域涵蓋教師評估、協作學習、使用糾錯技巧處理學生問題和使用網上平台增強老師與學生、學生與學生之間的溝通。她定期為小學和中學教師舉辦工作坊，掌握最新英語教學法發展，並熱衷於支持校本專業發展課程。學院於 2006 年頒授“傑出教師獎”予她作為對她各項成就的肯定。

Ms Tavares works as a teacher educator in the Faculty of Education at The University of Hong Kong where she actively promotes the professional development of pre-service and in-service teachers within and beyond the university. She was former Chief Examiner of the P3 and P6 English Language papers in the Territory-wide System Assessment (TSA) and held a number of other major positions at the Hong Kong Examinations and Assessment Authority (HKEAA). Her teaching and research expertise covers areas

ranging from teacher assessment readiness, collaborative learning and use of error-correction techniques in handling learner problems to the use of online platforms in enhancing teacher-student and student-student communication. She regularly runs workshops for primary and secondary school teachers, keeps herself abreast with the latest developments in ELT pedagogy and is keen on supporting school-based professional development programmes. She was presented with the Distinguished Teacher Award by the Faculty in 2006 for all her accomplishments.

### **蕭勵中博士 Dr Felix Siu**

蕭勵中博士的本科是科學與計算機教育，現任香港大學教育學系教學顧問。他有多年任教小學、中學和大專院校的經驗。他的研究興趣廣泛，涵蓋多媒體教育、資訊素養、信息管理、信息和通信技術教育和理科教師教育。他以作者或合著者身份發表了很多關於在教育領域應用信息和通信技術的學術論文。

Dr Siu has a solid background in Science and Computing Education with many years teaching experience in primary, secondary and tertiary education. He is Teaching Consultant in the Faculty of Education at The University of Hong Kong.. His research interests and experiences are diverse, covering areas such as multimedia in education, information literacy, information management, information and communication technology in education, and science teacher education. He has published, as author or co-author, many academic papers on the use of ICT in education.

### **演講內容簡介 Presentation Abstracts**

#### **Presentation 1: Inquiry project-based learning with wiki at primary 5 level with a collaborative teaching approach**

Speaker: Dr. Chu, Samuel Kai Wah (Assistant Professor and Deputy Director, Centre for Information Technology in Education)

Abstract: The speaker's award winning article (Chu, 2009) has shown the effectiveness of the collaborative teaching approach with three subject teachers (General Studies, Chinese Language, and Information Technology [IT]) and the librarian in guiding primary 4 students through their General Studies group projects in a local school. The effect of this approach was examined by comparing the project grades of the students who took part in inquiry PjBL with those of a control group. Surveys and interviews were conducted with students (N1 =141), parents (N2=27), and teachers (N3=11). The comparison of the group project grades showed that significantly higher scores were obtained by the inquiry PjBL groups ( $p < 0.05$ ). Surveys suggested that students were perceived to have improved in eight dimensions of learning, including reading and writing abilities and IT literacies.

This presentation will highlight the additional benefits to the students (as well as teachers) when a wiki (Google Sites) is used as the platform for students in primary 5 to co-construct their inquiry group projects online guided by a collaborative team of teachers and the librarian.

References:

Chu, S. (2009). Inquiry project-based learning with a partnership of three types of teachers and the school librarian. *Journal of the American Society for Information Science and Technology*, 60(8): 1671-1686.

## **Presentation 2: Using Google Sites in collaborative inquiry projects in General Studies**

Speaker: Mr. Fong Chi Sun (IT panel and GS teacher from Canossa Primary School), Mr. Yu Chuek To (Curriculum Development Officer and IT teacher from C.C.C. Kei Faat Primary School)

Abstract: The presentation will be based on a teacher's first-hand experience gained from a research study that aims to promote student learning at upper primary levels. Part of the research involves the use of Google Sites — a free and user-friendly Wiki platform — by Primary 5 students in their General Studies group projects.

Inquiry PjBL is found to be a far more effective mode of learning than traditional forms of learning. Web 2.0 technologies have also been shown to be used in conjunction with the inquiry PjBL approach to provide a favourable online collaborative environment for students to put together their group projects. Wiki enables teachers to scaffold students' learning by tracing and commenting on their work at different phases of the project and is thus worth exploring as a potentially effective teaching and learning tool.

Mr. Fong and Mr. Yu, two of the teachers from the participating schools in the inquiry PjBL project, will share their frontline experience on how to teach and guide their students in using Google Sites to complete their projects. They will examine the advantages of using Wiki as a collaborative platform. They will also demonstrate how Google Sites can address some problems faced when doing projects using traditional methods. Lastly, they will illustrate what other benefits Google Sites can offer.

## **Presentation 3: Would the development of (personal and social) values and attitudes be still achieved by conducting the inquiry based learning online?**

Speaker: Dr. Felix Siu (Teaching Consultant in the Faculty of Education at The University of Hong Kong)

Abstract

Purpose: This study investigates the efficacy of conducting inquiry project based learning with the use of educational technology for students in four primary schools with an emphasis on the development of values and attitudes in student projects. Reflection in learning is a pedagogical technique used to promote the higher order cognitive skills of analysis, synthesis, and evaluation that constitute the concept of critical thinking. According to Bloom's taxonomy of educational objectives, it consists of three domains: cognitive (about knowing), affective (about attitudes, feelings) and psychomotor (about doing). The affective domain has a hierarchy of five levels: receiving, responding, valuing, organization and characterization.

Methodology: To foster affective reflection in learning, students were also encouraged to create written reflection in their projects, besides a set of interview questions and questionnaire based on the characteristics of these five levels, were developed to scaffold students in their reflection process with an emphasis to enhance the development of values and attitudes in inquiry based learning. The methodology used for the research was a mixed method of quantitative and qualitative techniques using three instruments: student survey, focus group interview and students' written feedback in their projects. The primary goal of the investigation was an exploration of any resultant evidence of student critical thinking, and a subsequent evaluation of the development of value and attitudes in doing inquiry based learning online.

References:

Bloom, B.S. (1956). Taxonomy of educational objectives. Handbook I: The cognitive domain. New York, NY: McKay.

Bloom, B.S. (Ed.) (1969). Taxonomy of educational objectives. Handbook I I: Affective domain (2nd ed.). New York, NY: Longman, McKay

#### **Presentation 4: Using Google sites in English Collaborative Writing**

Speaker: Mr. Fung Kwok Yam (English vice panel from Cheung Chau Sacred Heart School)

Abstract: Writing in the second language is perceived by local teachers to be one of the greatest challenges to their students whose schools are mainly Chinese-medium.. Acknowledging the fruitful results of using web-based collaborative tools in project learning in General Studies, the team has attempted to extend this to English Collaborative writing at primary schools, with the aim of examining the extent to which collaborative learning can enhance students' English writing skills. Web 2.0 technologies are potentially effective tools in education because of the online collaborative environment it provides for students to co-construct their group projects. Besides, Wiki enables teachers to scaffold students' learning by frequently tracking students' work and commenting on their work during different phases of the project.

Fung Kwok Yam, an English teacher at Cheung Chau Sacred Heart School, will share his frontline experience of teaching Primary 5 students to write collaboratively on the topic of Cheung Chau Bun Festival using Google Sites. This presentation will focus on the advantages of using wiki in encouraging students to read and respond to their peers' work, promoting peer learning and fostering the skills of self- and peer-evaluation.

#### **Presentation 5: Experimenting with English collaborative writing on Google Sites**

Speaker: Ms Nicole Tavares (Teaching Consultant in the Faculty of Education at The University of Hong Kong)

Abstract: Writing in English has proven to be a challenge to many local students in Chinese-medium settings. Acknowledging the fruitful results of using web-based collaborative tools in conducting projects across different subjects (Chu, 2008; Li, Chu, Ki & Woo, 2010; Woo, Chu, Ho & Li, 2011), the study of promoting English Collaborative writing using Google Sites aims to examine the extent to which collaborative learning in a Web 2.0 environment can enhance students' writing and other skills. Web 2.0 technologies have been chosen to be the tools used in this study because they provide a free online collaborative platform for students to co-construct their group projects with the teacher's facilitation, enabling teachers to scaffold their students' learning through regularly monitoring their work, providing timely feedback and making positive interventions when appropriate.

Miss Tavares will highlight the findings of this part of the research study using authentic examples from students' written work on Google Sites and explore how the online collaborative environment has led to improvement in students' writing and other skills, the teaching methods used at different primary schools to facilitate the learning process and the team's reflections on how the potentials of web-based collaborative writing can be maximised.



## References:

- Chu, S. (2008). TWiki for knowledge building and management. *Online Information Review*, 32(6): 745-758.
- Li, X., Chu, S.K.W., Ki, & W.W., Woo, M. (2010). Students and Teacher's Attitudes and Perceptions Toward Collaborative Writing with Wiki in a Primary Four Chinese Classroom. Paper presented at The 3rd International Conference "ICT for Language Learning, Florence, Italy.
- Woo, M. Chu, S., Ho, A. & Li, XX. (2011). Using a Wiki to Scaffold Primary School Students' Collaborative Writing. *Journal of Educational Technology & Society*, 14(1): 43-54.

## **Presentation 6: Challenges of using Web 2.0 technologies in education and how students perceive using Google Sites**

Speaker: Mr. Law Ho Cheung Andy (IT teacher from STFA Wu Siu Kui Memorial Primary School [AM])

Abstract: In the technology-advanced 21st century, information technology (IT) skills are in huge demand, and so schools begin training students as early as in primary. IT competency refers to the ability of using different IT tools such as information search skills in the Internet and MS office software like Excel. IT lessons at schools not only gear towards enhancing students' IT skills but also aim at facilitating their learning in other subjects. This new role of IT teachers has been explored in a research project of The University of Hong Kong which focuses on enhancement of classroom teaching with inquiry PjBL.

The project has identified IT teachers' role as facilitators in motivating students to develop necessary IT skills for more effective learning. In the implementation of inquiry PjBL, students are required to apply their IT skills in General Studies and manage their own group's wiki page.

Mr. Law will explain the challenges of using Web 2.0 technologies in education and share his experience. He will also show how students perceived the use of Google Sites based on his first-hand experience gained from the inquiry PjBL project.

## **Presentation 7: Teachers as researchers and the development of teacher professionalism**

Speaker: Dr. Ken Chow (the principal of Sacred Heart Canossian School)

Abstract: Teachers' engagement with research has long been advocated as a strategy for enhancing their professionalism (Cochran-Smith & Lytle, 1993, 1999; MacLean & Mohr, 1999). Yet teacher-initiated classroom-based research is still relatively new to teachers in Hong Kong. In this presentation, the speaker will introduce a study that explores the reasons why a teacher-as-researcher ethos is lacking in Hong Kong. Four local primary schools have participated in this school-university partnership project that promotes collaborative inquiry PjBL. Specifically, these teachers from four different subject areas – Chinese, General Studies and Information Technology teachers and teacher librarians – have worked collaboratively in equipping their students with the knowledge and skills across disciplines through the implementation of inquiry PjBL with Web 2.0 technologies.

Dr. Chow, who holds multiple positions as researcher, teacher-educator and school leader, will share his insights from the practitioner's perspective on how the implementation of this new teaching approach facilitates teachers' development of their professionalism.

References:

- Cochran-Smith, M., & Lytle, S. L. (1993). *Inside/outside: Teacher research and knowledge*. New York; London: Teachers College Press.
- Cochran-Smith, M., & Lytle, S. L. (1999). The teacher research movement: A decade later. *Educational Researcher*, 28(7), 15-25.
- MacLean, M. S., & Mohr, M. M. (1999). *Teacher-researchers at work*. Berkeley: National Writing Project, University of California.