

Part B Project Summary

200910422

Project Title: *(Please fill in the blank)*

Chemists Online

Name of Organization: Lok Sin Tong Young Ko Hsiao Lin Secondary School

(1) **Goals:** This is a collaborative project between universities and secondary schools in Hong Kong that aims at nurturing scientific literacy and questioning skills of secondary school students by providing them with exposure to university education through the use of appropriate e-learning facilities.

Objectives: (i) To enhance students' scientific literacy.

(ii) To develop questioning skills of senior secondary students.

(iii) To increase the exposure of secondary school students to university education.

(iv) To serve as an exemplar of school based assessment in chemistry in the NSS education.

(2) **Targets:**

Expected number of beneficiaries: Approximately, 240-350 S5 and S6 students from up to 8 active participating schools and 800 S5 and S6 students from up to 40 other participating schools will benefit from the project.

(3) **Implementation Plan:**

(i) **Duration:** 1/3/2011 – 28/2/2013

(ii) **Process / Schedule:** The project is a collaboration between universities and secondary schools. Our school will take up the role of project organizer and the implementation of the project will be managed through a management committee composed of members from various participating parties. The Hong Kong Virtual University (HKVU) will provide the Learning Management System (LMS) and technology support for the project. Around 6 online chemistry seminars will be organized in each academic year. These seminars would be delivered in the forms of online laboratories or online lectures. Students from the active participating schools will be allowed to ask questions and participate in discussions during the seminars using a video conference platform, while students from other schools will either watch the online seminar broadcast or from the video archive. One of the main focuses of the project is to nurture the question asking skills of senior secondary students. A simple model for generating questions, '6W+1F+keywords', will be employed. Both pre-seminar and post seminar activities will be arranged to maximize students' learning experience. The learning platform developed by the HKVU will provide a stimulating learning environment for students to access these chemistry seminars and other related e-resources including seminar archives, pre- and post- seminar activities, discussion forums, etc. Students are required to attend 6-8 online seminars in the two-year cycle so that they will be given the opportunities to acquire knowledge on more advanced topics and to develop the habit of asking questions to enhance their understanding. The project will also form a bridge between secondary schools and universities in providing students learning experience at both levels. Besides interaction through online mode, face to face seminar sessions will also be arranged to provide students authentic learning experience in local universities. Furthermore, the project will help secondary students to establish a learning community that involves science teachers from secondary schools and universities.

(iii) **Collaboration with other parties / partners:** The director of HKVU will be the co-project leader, and plays the key role in implementing the project. Chemistry professors from the six universities and chemistry teachers from 6 active participating local secondary schools will participate in the project.

(4) **Products:**

(i) **Deliverables/outcomes:** Online and archived seminars, e-resources generated from the projects such as discussion forums, responses from academics, learning objects, question asking modules, chemistry/science related e-resources etc.

(ii) **Dissemination of deliverables / outcomes:** Around 240 senior secondary school students attending 6-8 chemistry seminars through LMS by HKVU

(iii) **Commercialization potential of deliverables / outcomes:** Not applicable

(5) **Budget:**

(a) staff cost: \$1,108,800 (b) equipment: \$265,000 (c) general expenses: \$148,224 (d) services: \$350,000
(d) contingency: 22,976 **Subtotal: 1,895,000**

(6) **Evaluation:**

(i) **Performance indicators:** Feedback from students and teachers from active participating schools and university professors, number of students registered as participating users from schools other than the active participating schools. Comments from experts in chemistry education.

(ii) **Outcome measurements:** Questionnaires, interviews, etc.