Symposium on Engaging Undergraduates in Research And Inquiry:

A scholarly Dialogue, May 20, 2011, HKUST

1. Project/Course title

Fungi in Our Environment.

2. Project/Course team

Name	Institute	Post	Department/ Division	E-mail
Course Instructor/Project leader: Lilian L P Vrijmoed	City University of Hong Kong	Professor	Biology and Chemistry	bhlilian@cityu.edu.hk
Members (if any): NIL				

BEFORE

3. Project/Course objectives (or Intended Learning Outcomes) *(Suggested number of words 30-40 words)*

What did you intend students to learn from this project/course?

To enable students to explore fungi in their environment and develop the following skill-based intended learning outcomes, i.e.

- Enhance active learning.
- Apply logical thinking to solve problems.
- Practice team work for collaborative learning.
- Develop good presentation technique.

4. Inquiry Based Learning Activities (*Suggested number of words: 75-85 words*)

What did students do (inquiry-based learning activities) during the course/project?

- Students were divided into small groups of 4-5 members.
- Each group then selected "a problem related to fungi in their environment". Their first task was to frame the learning issues, followed by distribution of duties to collect the relevant information.
- Each student prepared their own Power Point based on the group discussion (via a group blog) of all the information collected.
- A PowerPoint presentation based on the group synthesis of all the group members' Power Points was presented as a final product of collaborative learning.

AFTER (*Suggested number of words for items 5 & 6: 50-60 words*)

5. How did you assess the effectiveness of students' learning?

Please give an account of the assessment methods and results.

- A group blog was created to capture the interactive process in each group.
- Each group member evaluated the efforts and contribution of his/her peers in an evaluation form.
- The final group Power Point presentation was assessed by the entire class based on a standard rubric.
- Students measured their own achievement of learning outcomes via a questionnaire at the end of the exercise.

6. What were the major outcomes of this project/course? Do they match with your

objectives (or Intended Learning Outcomes)?

Examples of outcomes include educational software, improvement in student learning or

For this 4-week exercise,
- the blog was very effective to monitor the interaction amongst students. However only 12% of the students considered the activity useful while 39% did not like the activity due to the workload involved. Nevertheless, 31% of the class acknowledged that the PBL exercise helped them **to engage in deep learning.**
- The final score of each student was determined by the group presentation mark given by the entire class + the peer evaluation mark on their efforts and contribution. The students agreed that this is a fair assessment as free riders could not benefit.
- From a scale of 1 to 10, students perceived they had achieved all the learning outcomes varying from an average of **5.8** before the exercise to **6.9** after the exercise. The outcome on "practice team work skills for collaborative learning" had the highest score of 7.0. "Practice active learning skills to construct knowledge" showed the biggest improvement (from 5.2 to 6.7) though this outcome had the lowest final score of 6.7.