

An Example of Outcome-based  
Co-curricular Activities:  
The **P**roject-**B**ased **M**entoring **S**cheme

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# Background of PBMS

- Some students lack motivation in their learning
- Enhancing students' interest may help improve their learning attitudes
- Flexibility of offering activities in out-of-classroom setting
- Opportunities for further interactions among students and teachers

# Intended Learning Outcomes

- Enhance learning interest of students in biology, chemistry and environmental science through project-based activities
- Develop academic and non-academic skills (including mentoring) in students, which are essential to their future career
- Provide opportunities for students to work in habitats not available in HK and cross-cultural experience (internationalization)
- Make friends

# Scope of PBMS

- Participating students (Year 1), senior student mentors (Year 2 or above) and supervisors (teaching staff)
- Undertake group projects in HK (1999-2001) or outside Hong Kong (2002-onwards) in Kuala Lumpur (Malaysia), Xiamen (mainland), Oslo (Norway)
- Visits to museums and parks
- Presentations (on-site and CityU) and reflections
- Take care of themselves
- Costs including accommodation, meals, transport and laboratory expenses are covered

# Pre-trip Preparation

- Recruitment of participating students, senior student mentors (both within CityU and Oslo University)
- Formation of student groups and selection of projects
- Preparation of project proposals and equipment
- Team Work building
- Use of ePortfolio/reflective writing



# Student Recruitment

- Participating students – video to show aims of the trip
- Senior student mentors, CityU – those with experience with PBMS
- Senior student mentors, Oslo University – those are active and willing to help out

# Student & Project Groups

- Student groups – free choice, but with number in each group assigned by supervisors
- Mentors are assigned to each group
- List of potential project areas provided by supervisors as a start, but ideas for new projects are welcome
- Information of previous projects is provided for reference

# Preparation of Project Proposals and Equipment

- Mentors (CityU and Oslo University) greatly involved with the student groups
- Written proposals required for review by mentors and supervisors
- Meeting(s) to discuss on proposals; may last many iterations for 2-3 months
- Students have to well prepare for equipment to be used in their projects
- Advice and assistance from CityU laboratory technicians, as necessary



# Team Work Building

- Workshop run by Career and Internship Office
- Team characteristics and dynamics
- Team own assessment and self-reflection  
(strengths and weaknesses; areas that deserve attention)

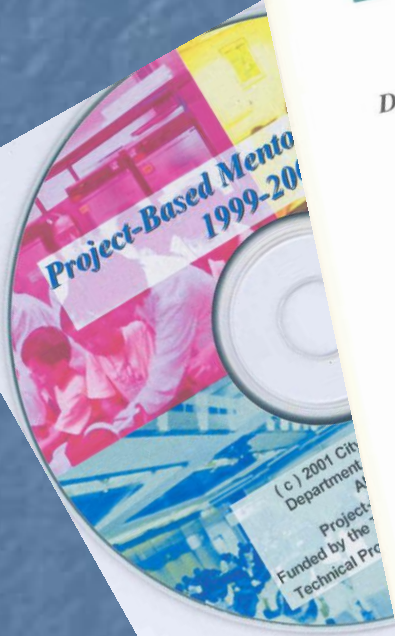
## Feedback from Team Assessment and Self-reflection

<b>Group Name</b>	<b>MALGA</b>
<b>Members</b>	Andy, Sony Li, Ben Liu, Iyana, Charlotte
<b>Assessment results (in descending order)</b> <i>- the higher the score, the lesser the problem</i>	<ol style="list-style-type: none"><li>1. Lack of Commitment (7)</li><li>2. Avoidance of Accountability (7.6)</li><li>3. Fear of Conflict (6.8)</li><li>4. Inattention to Results (6)</li><li>5. Absence of Trust (5.8)</li></ol>
<b>Strength of teamwork</b>	Members are starting to realize the importance of working together.
<b>Areas that deserve attention</b>	<p>Members are still functioning rather individually. Need to learn active listening and develop trust in others to be able to accept other member's input, evaluate, make decision and move forward, Need also to develop trust in oneself to be able to put forward his/her own ideas and contribution. Break-through must be made to involve and engage all team members. Cohesion needs to be developed so that all members can enjoy team work and move forward.</p> <p>The next step will be to develop a team plan. Timelines, deliverables, job divisions, etc.</p> <p>Members should hold each other accountable for fulfilling their roles and responsibilities.</p>

# ePortfolio/Reflective Writing

- Students and mentors attended a workshop on ePortfolio
- Expectations/goals, reflective writing, hands-on demonstration to create own ePortfolio
- Aim to document students' learning objectives in the trip and reflect what they have learned afterwards
- Reviewed by PI after the trip





香港城市大學  
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City University of Hong Kong  
Department of Biology and Chemistry

A project-based Mentoring Scheme  
Enhancement of Students' Learning

Student Presentations  
2001

7 September

Multi-level  
City

(c) 2001 City University of Hong Kong  
Department of Biology and Chemistry  
Project-based Mentoring Scheme  
Funded by the Technical Education and Manpower

香港城市大學  
City University  
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**PROJECT  
BASED  
Mentoring  
Scheme**

Student Presentations  
2004

Thursday  
30 September 2004, 5:30 p.m.  
Multi-media Conference Room  
Cheng Yik Chi Building

Department of Biology and Chemistry

**PBMS  
2006**

BCH  
City University  
of Hong Kong

A collage of various photographs showing students participating in the PBMS 2006 event, including presentations, group photos, and students working in a lab.

**Date: 24 Oct 2006 (Tue)**  
**Venue: Multi-Media Conference Room**  
**Time: 5:30 p.m.**

# Students' Reflective Writings

- *PBMS 2007 Norway...a trip which is full of adventures, joy, happiness, difficulties.....*
- *I learn a lot, such as how to think critically, how to cooperate with the groupmates etc. Apart from the project, I think the most important is that I can experience the Norwegian culture, their local food, language, life style and architecture that I have never seen before.*
- *This trip lets me know how biology can actually apply and how close it is to our everyday life. It also let me reflect what I am lacking of.*



# Students' Reflective Writings

- *The most important thing I learnt in PBMS is "how to learn". Before the trip, I got the wrong concept in studying science....*
- *In this field trip, I understand that observation and asking questions are two important parts of learning...*
- *The trip is finished, but our journey is still. I have learned a lot of things in Norway, and I am going to practice what I have learned in my life. I hope I can ever learn no matter in any time, at anywhere.*
- *In Norway, I miss home very much. Although the view is good and the bed is comfortable, I just can't stay there any more.*

# En uke i

One week in paradise

“It is just like being in the paradise”, said the biology student Anita (20) from Hong Kong. Together with 20 other students and five teachers, they are exploring the marine life in Drøbak.

for a studere livet i  
havet.

AV PÅL MØRK

Uvant for en gjeng 20-åringer  
som fortsatt bor hjemme i redet.

*Presentasjon to ganger*

– Når vi er ferdig med uka skal









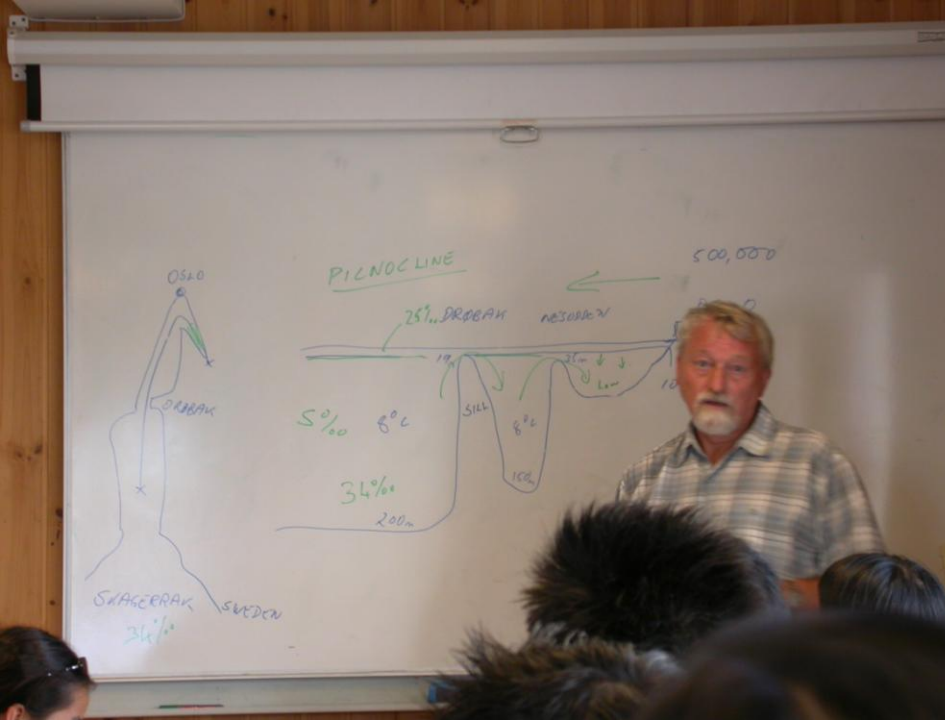
2002/01/05























# Assessment of PBMS

- Pre- and Post-trip interviews of students and mentors, conducted by staff from EDO
- Pre-trip: students could explain the objectives of the trip: out-of-classroom opportunity to learn; work on projects without laboratory manuals; improve language skills and appreciate different cultures. This matched well with the rationale of the project. Pre-trip preparation was useful, with guidance from mentors, to learn ask the right research question, manage time effectively, and improve inter-personal skills.
- Post-trip: significant learning experience in teamwork, social and inter-personal skills, delegation of responsibilities, awareness of cultural differences, and appreciation of aesthetics and nature.



# Lessons to share

- A good whole personal development model; similar model is applied to POP (Project-based Outreach Programme) for secondary school students
- Good mentor and mentee relationship is important
- Expectations from students
- Responsibilities of and commitment from supervisors



Thank you for your attention