



香港教育大學

The Education University
of Hong Kong

Seminar on Teaching Development Grant (TDG) Projects (2)

Facebook for What? - Social Interaction or Self-reflection?

Presenter: Dr. Irene Cheng

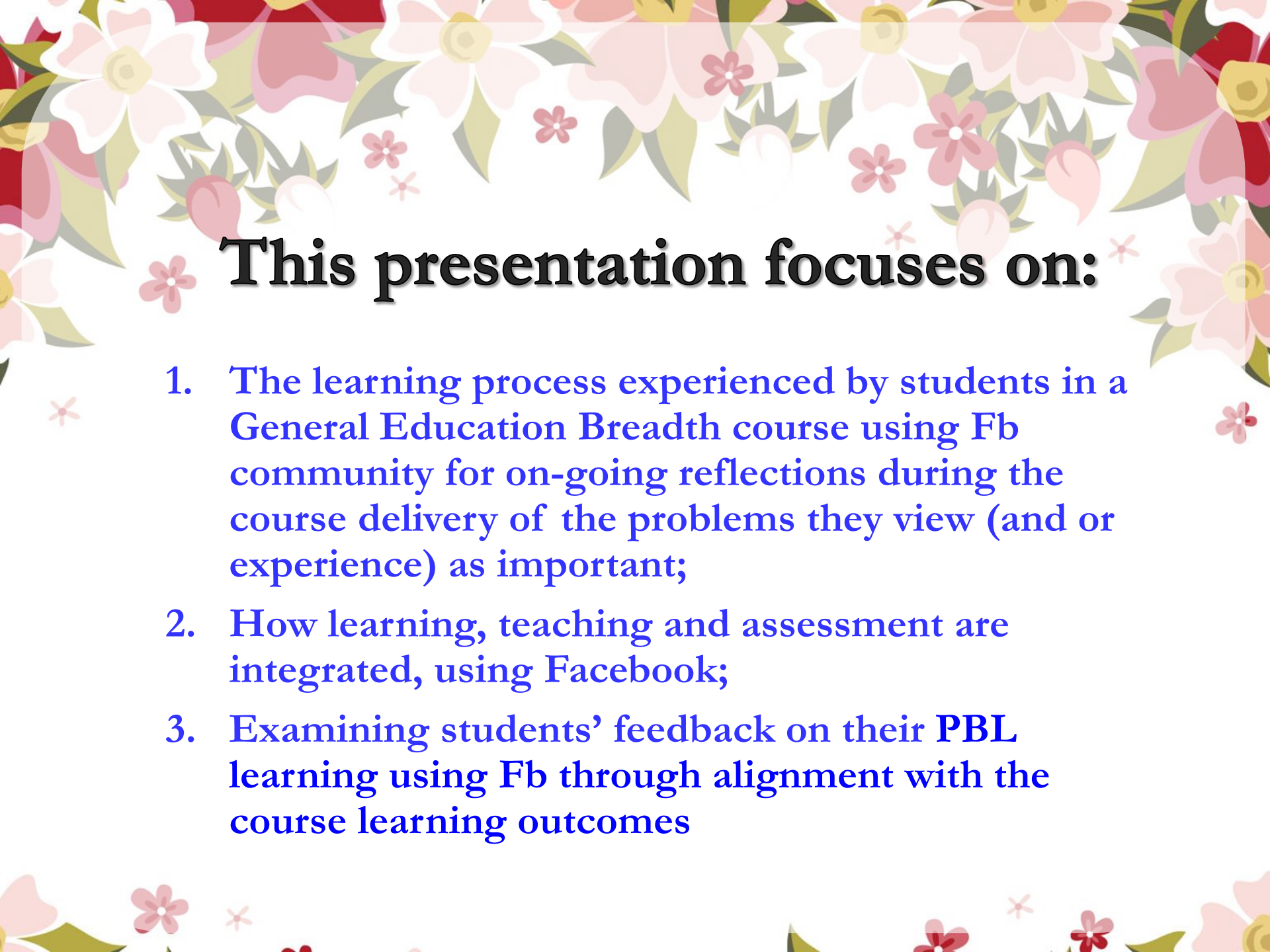
Department of Science and Environmental Studies, EdUHK

Date: 21/03/2017

Introduction



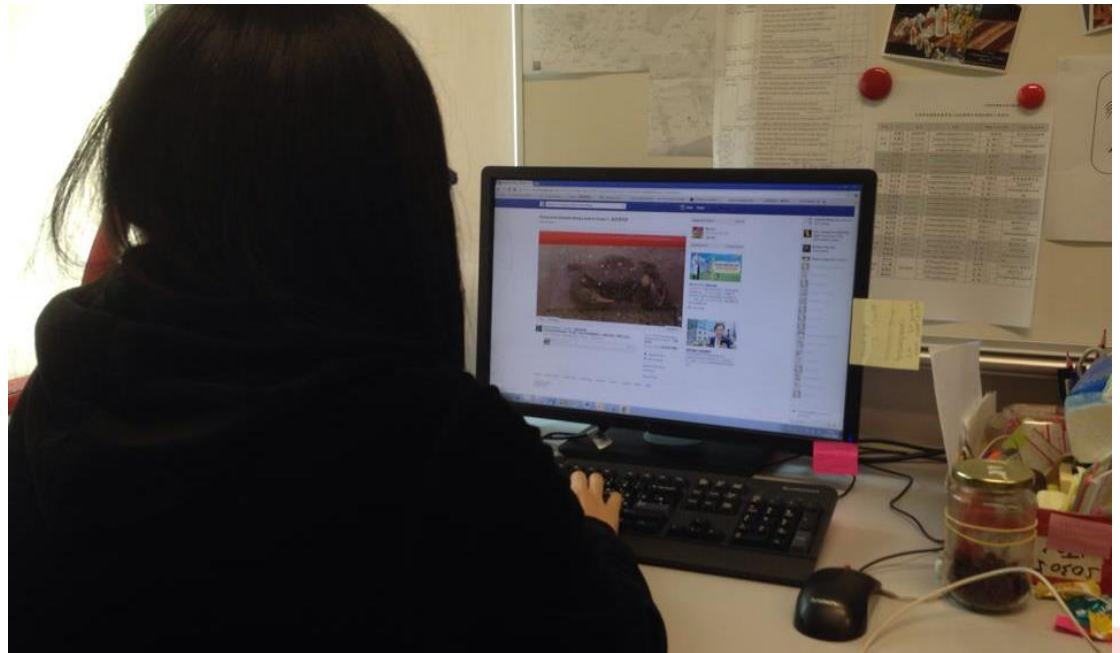
Developing blended learning environments that combine face-to-face PBL contact with a Facebook-enabled PBL environment

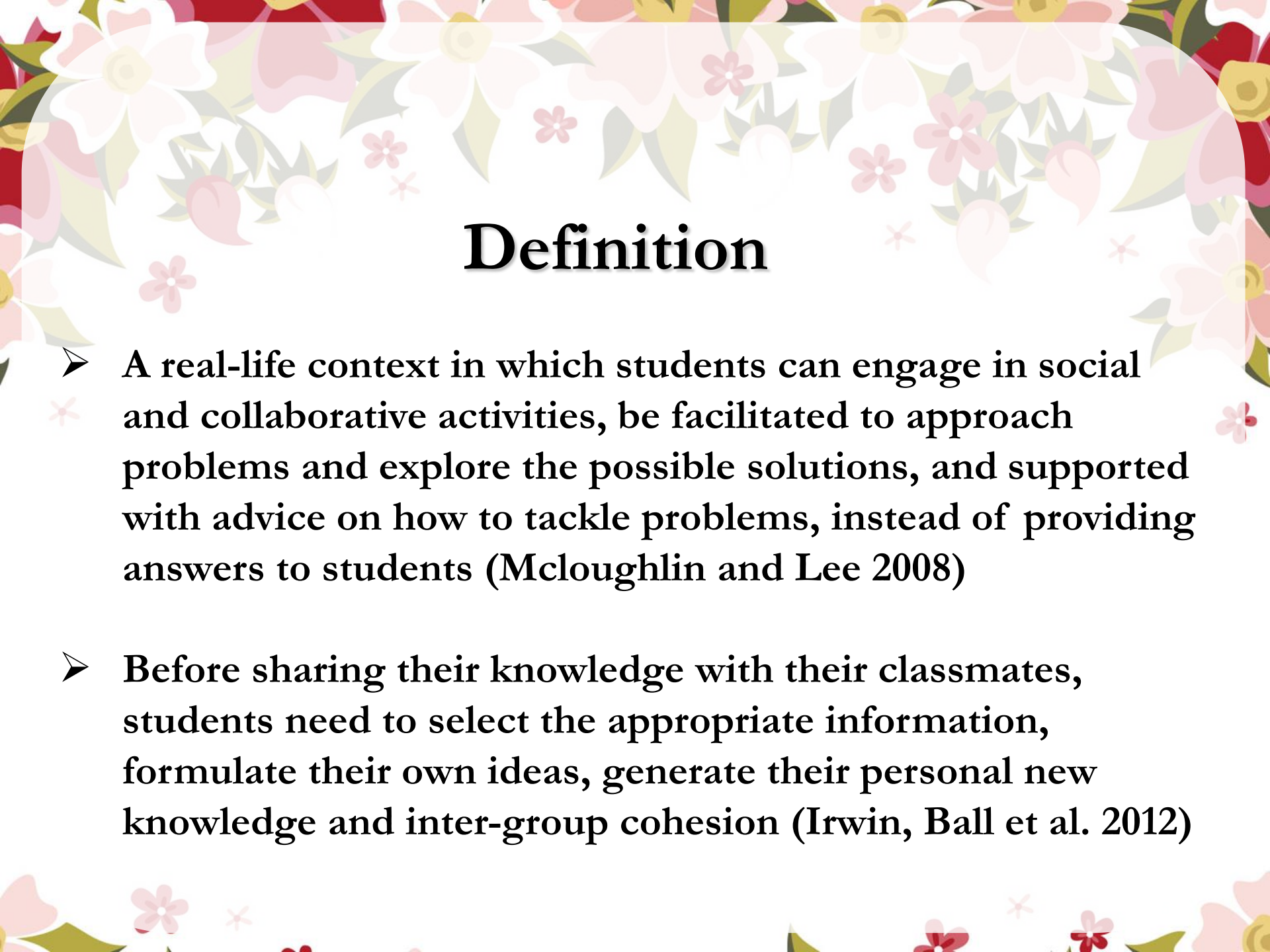


This presentation focuses on:

1. The learning process experienced by students in a General Education Breadth course using Fb community for on-going reflections during the course delivery of the problems they view (and or experience) as important;
2. How learning, teaching and assessment are integrated, using Facebook;
3. Examining students' feedback on their PBL learning using Fb through alignment with the course learning outcomes

What is Problem-based Learning?





Definition

- A real-life context in which students can engage in social and collaborative activities, be facilitated to approach problems and explore the possible solutions, and supported with advice on how to tackle problems, instead of providing answers to students (Mcloughlin and Lee 2008)
- Before sharing their knowledge with their classmates, students need to select the appropriate information, formulate their own ideas, generate their personal new knowledge and inter-group cohesion (Irwin, Ball et al. 2012)



The value of Facebook-enabled PBL environment

1. Making **connection** rather than separation of students from one another (Arquero-Monaño and Romero-Frías 2013) since it is a tool for social interaction and is well accepted by students
2. Communication in anytime or in any place that enhance effective collaboration and communication (Melvin Ballera, Lukandu et al. 2013) and support student engagement in their own **learning process**

The value of Facebook-enabled PBL environment

- Autonomy and flexibility for learning within a social environment for students (Promnitz-Hayashi 2011)
- Increased student motivation in learning (Langer de Ramirez 2010, Promnitz-Hayashi 2011)

- A new model to enhance teaching and learning
- Enhanced student learning motivation
- More in-depth understanding

Underpinning Ideas behind - Self-Motivation & Reflection

1. Pedagogical changes and innovations

- from teacher-centred to student-centred
- from simple content knowledge to complex problem-solving skills
- from teacher-directed to self-directed learning

2. Teaching and learning enhancement

- a platform for student-student and student-teacher interaction
- interactive online environment → active communication within their own group and/or across groups
- active construction of ideas, concepts and knowledge

Infusion into project framework

**1.
Classroom
Learning**

**2. Field
Learning**

**3.
Facebook
Learning**

Learning Process

**4. Group
Presentation**

**5. Poster
Design**

**6. Self
Reflection**

1. Classroom Learning

Find the problem



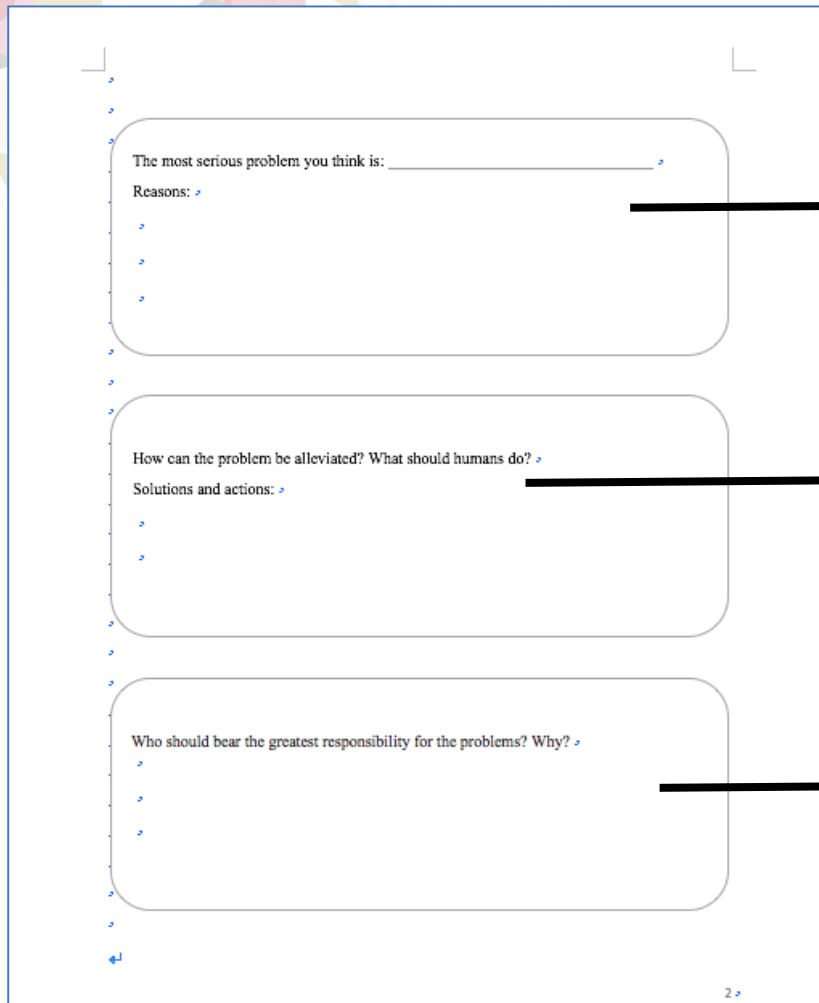
A glimpse of coastal problems

- Do they exist? What are they?
- Why are these problems?
- How are they affecting us?
- How much do you know them?
- How does our coastal environment look like now?

PPT notes of the 1st lesson

1. Classroom Learning

Find the problem



The worksheet is a vertical document with three main sections, each enclosed in a rounded rectangle. The first section is titled 'The most serious problem you think is: _____' and 'Reasons: >'. The second section is titled 'How can the problem be alleviated? What should humans do? >' and 'Solutions and actions: >'. The third section is titled 'Who should bear the greatest responsibility for the problems? Why? >'. Each section has a small blue arrow pointing to the right, indicating a flow or a specific point of focus. The worksheet is numbered '2' in the bottom right corner.

The most serious
problem you think is:
Reason:

How can the problem be alleviated?
What should humans do?

Who should bear the greatest
responsibility for the problems?
Why?

1. Classroom Learning

Find the problem

2. Match the ecological problems and their causes: »



Did you notice the common point of the causes above? What is it? »

Did you notice the commonalities of the causes above? What are they?

1. Classroom Learning

Find the problem

3. How is the coastal habitat damaged by the problem? »

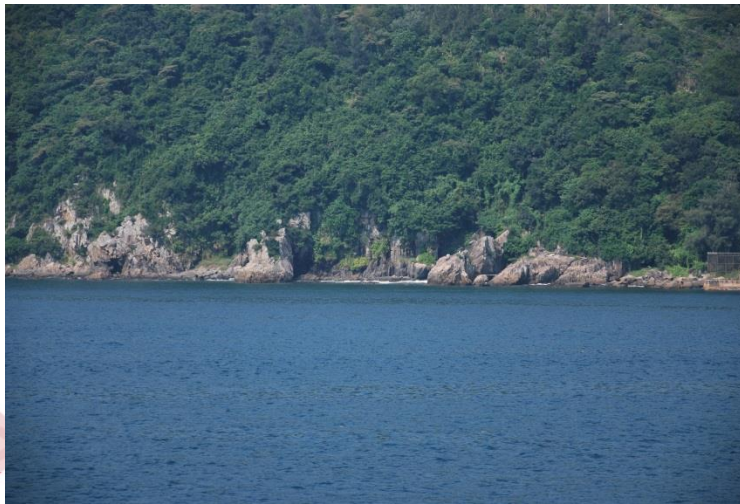
Coastal Habitat »		
Its value and function »		
Impacts caused by human activities »		

How is the coastal habitat damaged by the problem?

What are the value and function of the habitat?

How do the human activities affect us and the environment?

2. Field Learning Sai Kung



2. Field learning

Starfish Bay, Ma On Shan



2. Field learning

Observe the problem

- Students working in groups
- Identifying any creatures and problems in the field
- Photos and videos taking for data record
- Observation of any the human activities at the site and the surrounding
- Analysis of any possible factors influencing the ecosystem in the field



3. Facebook Learning

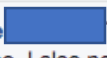
Analyze and discuss the problem

 **Yeung**  By Group 4
2016年11月5日 · 公開

Before going to the Starfish Bay, I thought the beach must be a clean and beautiful one as I guessed this is not a very well-known beach, and pollution would be less serious because less people would go there. However, the field shocked me that we've found a lot of man-made waste even on a remote beach like Starfish Bay. It makes me reflect that solid waste pollution is quite a severe issue that we, Hong Kongers should confront. Prompt actions like stricter law enforcement should be taken in order to alleviate the problem.

👍 讚好 💬 回應

👍 1

 **Ue**  The seriousness of solid waste pollution concerned me also, I also noticed that there are many micro pollutants left on the sand surface as sediments. Along with the dumped packages makes the sand blackened and the water quality worsened. I really doubt that if there will still be starfish if the water quality keeps on to be this worse.
讚好 · 回覆 · 2016年11月5日 10:02

 **Liu**  Also, I found that most of the rubbish are plastic, which is very harmful to the sea environment or the marine creatures. And it is quite sad that quite many of the marine creatures that we found are dead already. Although I cannot find out the cause of their death, still I can guess that pollution is one of the main factors that caused their death. Maybe more campaigns could be held by some of the environmental protection organizations, such as producing some videos that tell the people about the seriousness of the pollution. And they could also hold the campaign like the rubbish picking more frequently.
讚好 · 回覆 · 2016年11月5日 23:10

Facebook group sharing:

- Reviewing their field observation
- Elaborating and explaining the problem they have noticed in the field

 **Lo**  We observed various types of marine creatures while we found many human pollutants on the beach. There were lots of packages, plastic bottles and 4 tyres. Besides, many buildings are under construction around the site. Some industrial pollutants have gone into to the beach and the ocean through the streams. Therefore, a huge amount of dark sands were found. They were covered with the yellow sands. The above evidences suggest that the natural environment and the water quality are badly damaged. Everyone should pay high attention to the environmentally harmful effects of solid waste pollution and be responsible to protect the environment and preserve our marine resources. Hong Kong people are encouraged to go to the beaches in Hong Kong and see how serious solid waste pollution is. They are also encouraged to join beach clean-up activities to remove large solid wastes and microplastics.
讚好 · 回覆 · 2016年11月7日 9:19

3. Facebook Learning

Analyze and discuss the problem

 Yeung [redacted] To add on Irene's comment, the plastic wastes we found are all the plastic packages of food that are fumped by visitors of the beach. We've known that the commercial sector produces a lot of plastic waste, but what deserves our attention is that, do individuals largely contribute to plastic pollution as well? After knowing the fact, what could we do to alleviate the situation? How should we take part to pass the knowledge about the negative effects of plastic pollutions to the ocean and human beings on to other people? This is why we decided to use "plastic pollution" as our issue in the poster.
讚好 · 回覆 · 2016年11月8日 21:31

 Ue Hiu Lam Nice
讚好 · 回覆 · 2016年11月8日 21:39

 回覆.....

 [redacted] I have found another campaign
<http://www.gocup.hk/join/>
This campaign is to encourage people to use their own cups/mugs when they go to coffee shop or restaurants in order to reduce the use of plastic cups
Now they are giving out the special designed cups in this campaign too



Go Cup 走杯

每次外賣飲品，你會得到紙杯、杯蓋、攪拌棒、吸管、隔熱套或膠袋。5分鐘後，它們任務完成，被送...

GOCUP.HK

By Group 4

讚好 · 回覆 · 2016年11月8日 22:16

 [redacted] The public is recommended to throw the rubbish in a proper way. Also, they are suggested to reuse some materials in order to help reduce the waste and tackle environmental pollution. Organizing campaigns is an effective way to provide community education to the public.
讚好 · 回覆 · 2016年11月8日 22:53

Facebook group sharing:

- Reviewing their field observation
- Elaborating and explaining the problem they have noticed in the field
- **Share the online resources about the problem**
- **Discuss with groupmates about the problem**

Link: <https://www.facebook.com/events/365794617091300/>

4. Group Presentation

Sharing on the problem

- **Formulate** the problem affecting the marine environment
- **Examine** one problem identified
- **Present** findings in the class



By Group 4

5. Poster Design

Illustrate the problem

By Group 4

Poster Design and Presentation Proposal
GED/H 1012 Hong Kong Marine Odyssey

Group No.: 4 Group Leader: Liu Ching Ha Irene
(Tel. no. : 5137 7973)

Group members (Tel. no.): Lo Hoi Ki Heidi (Tel. no.: 9078 6420)
Yeung Sze Nok Sharon (Tel. no.: 9353 2130)
Lam Ue Hiu Adrianna (Tel. no.: 5404 6632)
Chang Huang Yu FunE (Tel. no.: 6712 5945)

*A rather
clearly presented
proposal.
Systematic and
well-referenced
to sources.*

Proposed issue/ topic/ theme of your poster 建議的議題 / 題目 / 主題	"Plastic pollution" Suggested title of the poster: - "You" Which Made In Plastics - Descendants of The Plastics
Background of the issue/ topic/ theme and the problems identified 議題 / 題目 / 主題的背景和問題	- Journal Science says eight of the top 10 plastic polluting nations are also in Asia, with China, Indonesia and Philippines being the worst (http://www.forbes.com/sites/micakelmachter/2016/03/30/indias-edible-cutlery-paves-the-way-for-asia-to-dream-of-zero-waste/#2d609b755118) - Plastic takes up the most in the sewage found in Hong Kong (http://www.epd.gov.hk/epd/clean_shorelines/tc/node/56.html) (http://www.epd.gov.hk/epd/clean_shorelines/sites/default/files/common2015/MarineRefuseStudyReport_CHI_Final.pdf) (http://www.wvf.org.hk/216963/Press-Release-Coastal-Watch-Releases-its-Latest-Ecological-and-Marine-Litter-Survey-Report)
Reasons for the choosing the issue/ topic/ theme (Causes of the problems) 選這個議題 / 題目 / 主題的原因 (問題的主因)	- Bulk of Hong Kong marine litter is plastic (http://www.scmp.com/news/hong-kong/health-environment/article/1871145/what-waste-bulk-hong-kong-marine-litter-plastic) - Hong Kong is a hotspot of microplastic contamination (http://atlasofscience.org/hong-kong-as-a-hotspot-of-microplastic-pollution/)

*Why is
plastic an
issue?
- durability
- indecomposable
- space occupation
How to present
these highlights in
your poster.
Why are they there
relative to the
issue and needs
of audience?*

Step 1

The students in FB learning group should finish a **poster proposal** to

- identify the background, reasons and solutions of the problem;
- express their viewpoints of the problem;
- find evidences to support their arguments

DESCENDANTS OF MARINE PLASTICS: ARE HONG KONGERS THE PLASTIC PRODUCERS?

Hong Kongers - THE PLASTIC PRODUCERS!

The problem of plastic pollution has been long underrated, or neglected by Hong Kongers. But the pressing figure of plastic pollution urges Hong Kongers to confront the serious issue.

Are we, Hong Kongers, the plastic producers?

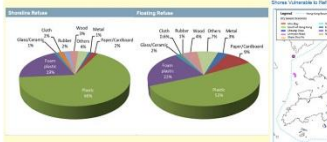
Problems of Plastics:

- Not easily degrade (Science News for Students, 2011)
- may break down into smaller pieces
- Many pieces wind up at sea
- hydrophobic (like oil and repels water)
- attract a variety of dangerous pollutants (e.g. polychlorinated biphenyls)

Why should I bother? - Food Chain Contamination



Current Situation in Hong Kong



(EDP, 2015)

Solution:

Government - Legislation & Promotion:

- *Polluters Pay Principle*: charge for plastic
- Set a week of Marine Hygiene
- tighter charge on beach littering
- hold a carnival; let citizens gain know the relationship of pollution and marine
- Set up law that ban the microbeads prod

Commercial Sector :

- Encourage the shops to provide discount (for using own utensils/containers)
- Reduce the packaging (especially for plastic)

Individual: (lack of knowledge/ willingness

- *Action Competence*: decrease the demand
- Follow the Facebook page of environmental
- Participate in the Clean-up Hong Kong

Our viewpoint:

Hong Kongers are lucky that we do not face more wasteful. We only consume, but never aspects in our daily lives, plastics would be more serious than we imagined. It highly affects human beings in the food chain too. Hong Kongers are all responsible for protecting the ocean from the problems unresolved. We must change habits, try to reduce the amount of plastic used as a pressure to call for the government's and the commercial sector's action, as a response to the heavy plastic consumption. Only if all the stakeholders could unify, the issue could be alleviated.

5. Poster Design Illustrate the problem

Step 2

The learning group should plan and share their poster design with their peers in a **poster forum** to

- convey their rationale, learning process, and also their viewpoints regarding the problem studied to peers and instructors
- Interact with peers on how the problem is perceived and understood

By Group 4

6. Self Reflection

Reflection of the PBL course

The problem solving skills and e-learning activities **enhanced my awareness** towards marine issues in two ways – taking the initiatives to **do more research** about the marine issues and **knowing more about what can I do** to alleviate the problems.

– Yeung SN

- **To demonstrate how the PBL course can enhance course participants' self-reflectivity and self-motivation**

The group sharing and poster design provide chances to let me **explore more on the marine issue**. It is often heard that there is marine debris, but it is not so often to have specific discussion. Through **the process of collecting the data for the sharing session**, I found different websites or even Facebook pages, which provide **a lot of useful information** that I have never noticed.

— Liu CH

How do we know if there are any changes in our students' learning?



Course Study Questionnaire

Pre- and post-project questionnaires will be administered to trace students' conceptions:

1. to evaluate students' study process in the form of deep or surface approach of learning
2. to examine student perceptions of the value of problem-based learning and the conceptual skills such as personal/self-management, cooperation and independence, managing information and data, teamwork, problem-solving, and communication fluency

The Education University of Hong Kong +
GEH1012 Hong Kong Marin Odyssey +
Course Study Questionnaire (CSQ) +

Student no.: _____

本課程研究問卷分為四部分，目的是了解學生對教與學概念、學習動機及學習反思的意見。所有題目沒有對錯，請就你自己所知回答問題。請誠實地回答每一條問題，並以本課程為基礎完成本問卷。請以黑或藍色原子筆，圈出合適的意見。註：所有數據只作研究用途，不會公開資料。 +

A. 你對知識的性質和知識獲取的信念。 就以下每一句子，請圈出代表你對該句子的同意程度。 +	極 不 同意	不 同 意	中 立	同 意	非 常 同 意
1. 有時我不相信權威人士撰寫的教科書內容。 +	1	2	3	4	5
2. 如果科學家夠努力的話，他們便能找到幾乎每一件事物的真相。 +	1	2	3	4	5
3. 名列前茅是要經過一番努力的。 +	1	2	3	4	5
4. 學習的能力是天生的。 +	1	2	3	4	5
5. 要真正學得好某些事物是要很長時間或很大努力的。 +	1	2	3	4	5
6. 每一個人都需要學習如何去學。 +	1	2	3	4	5
7. 有些人天生就是好的學習者，其他人卻天賦能力有限。 +	1	2	3	4	5
8. 即使是專家的意見都應該經常質疑。 +	1	2	3	4	5
9. 我相信應有一個可以適合所有學習情況的教學方法。 +	1	2	3	4	5
10. 如果有人不能即時明白某些事物，他/她們應該不斷去嘗試。 +	1	2	3	4	5
11. 一個人的天賦能力限制了個人所能學到的事物。 +	1	2	3	4	5
12. 我常常懷疑專家們實際知多少。 +	1	2	3	4	5
13. 如果科學家繼續尋找的話，他們最終將找到真相。 +	1	2	3	4	5
14. 只要肯努力不懈，任何人都能理解艱深的概念。 +	1	2	3	4	5
15. 智慧不是指知道答案，而是指知道如何去找到答案。 +	1	2	3	4	5
16. 真正聰敏的學生不需要用功讀書，就可以在學校取得好成績。 +	1	2	3	4	5
17. 科學知識是肯定和不會改變的。 +	1	2	3	4	5
18. 你學得多少主要取決於你付出的努力。 +	1	2	3	4	5
19. 如果人們將焦點多集中在理解的過程上而非在要學習的事實，那麼他們將會學得更好。 +	1	2	3	4	5
20. 在校期間，「中等」能力的學生，由始至終，能力都會維持不變。 +	1	2	3	4	5
21. 我絕不懷疑專家所說的話。 +	1	2	3	4	5
22. 一個人如果不努力，所學便有限。 +	1	2	3	4	5
23. 知道如何去學比所獲得的事實/資料更重要。 +	1	2	3	4	5
24. 有些兒童天生不能學好某些科目。 +	1	2	3	4	5
25. 我們的學習能力在出世時便已固定下來。 +	1	2	3	4	5
26. 如果一個人肯努力，他/她將能理解課程的教材。 +	1	2	3	4	5

Course Evaluation

Question	Mean
Inspiring students to think and learn	3.42
Enhancing students' course-related knowledge or skills	3.32
Encourage students to proactively engage in their own learning	3.47
Encourage exchange of ideas among students in their learning	3.47
Providing opportunities for students to learn from a variety of sources or ways	3.47
The overall teaching was of high quality	3.53
How strong is your learning motivation in this course?	3.74

Evaluation of the students

Students' perception of problem-based learning

1. Improving their level of understanding of the problems in their surrounding (coastal)

Next step:

2. Enhance
 3. Explore
1. Pre- and posttest analysis of R-SPQ-2F
 2. Refinement of teaching resources, activities and manual, using FB as a form of social networking and an academic networking platform

Familiar

1. More time and guidelines needed for students to get used to this assessment format
2. Closer interaction between learning and assessment

References

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THANK YOU

