Trigger for in PBL in Environmental Studies

Reflection from a trial



PBL Trial—some details

- Four classes of Environmental Studies
- Kindergarten in-service teachers
- Average 22 students per class

Procedure

- PBL briefing
- Small group discussion based on one of the triggers chosen by each group of students
- Discuss what need to be learnt to propose remediation for the mentioned problems
- Search for what is needed over holiday
- When they came back from holiday, each group discuss among them



Limitations of the Trial

- Short duration of time (3 to 4 weeks), not enough to establish a student-centered learning atmosphere
- Difficult to provide guidance provided by instructors over long holiday
- Collaboration and initiative among students varied depend on composition of the students



Triggers used in the trial

- Triggers used in the trial are 5 newspaper articles in Chinese describing particular localized environmental problems
- Longer articles are shortened to one-page length.

Triggers used

- Trigger 1: bad smell caused by landfill near residential areas
- Trigger 2: poor water quality at beach near Tuen Muen
- Trigger 3: Traffic noise problem in Tsuen Wan
- Trigger 4: Survey on the impact of air pollution on Hong Kong economy
- Trigger 5: Broken tree branch of old tree in Kowloon Park



Criteria for choosing triggers used in the trial

- Descriptions and basic facts about the environmental problem.
- Views of multiple stakeholders included.
- Not too many technical details.
- Incomplete information about possible solution.
- Have potential policy implications since the ability to critique and analyze environmental policy is incorporated as one of the assessment criteria.



"Environmental problems" as "the problems" in PBL

- "Problem to be solved" versus "problem as framework for inquiry"
- Unlike exemplar problems used in some PBL studies, authentic environmental problems in our society as reported in newspaper are usually complicated and involved multiple stakeholders, perspectives and values.
- Students may be not able to propose only preliminary solution to these problems even after exploration.

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- Nevertheless, the exploration process allow them to develop a in-depth understanding about the stated environmental problems.
- In the context of this trial, the use of PBL is seen more as framework for inquiry (compared to issue-based inquiry)

