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 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.
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)