[Case Study 2]

6. Caring for the Environment

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I was deeply impressed with the new knowledge, unforgettable friends, and wonderful and generous teachers that I encountered at the APNIEVE-APCEIU Teacher Training workshop (July 10-13, 2001). Above all, I was very pleased that I received helpful, new ideas on how as well as what to teach in this field. I have taught students the skills required in answering multiple choice type questions and how to achieve higher scores on entrance exams. In the process, I have been neglecting to teach about topics such as sustainable development, human rights, tolerance, and other issues I learned about in the workshop. Upon my return, I felt I should do something more in my English class. I used the text I got from the workshop, as a guideline, extracted some paragraphs from it and used them as reading materials in my class. When I had to teach a lesson related to the environment, I knew precisely what to teach and how to teach it, thanks to my experience of the teaching process on sustainable development, human rights, tolerance, etc., in the workshop with my wonderful trainers.

The whole lesson took seven periods over two weeks. Even though my class consists of second-year students in high school, it did not proceed as I had expected because they did not understand all the questions and the articles in English. I needed to paraphrase the sentences and sometimes translate them into Korean. Moreover, some students disliked studying materials that they thought was not helpful for university entrance exam preparations.

What they knew about environmental problems was far from concrete and their knowledge was only at a superficial level. They had little idea of what to do to protect the natural ecology. When they heard examples of the tragic things befalling the environment, they were shocked and began showing interest in the lesson.

As they learned about the problems human beings are faced with, they
gradually became serious in their approach to this topic. With the exception of a few who felt bored, most answered the given questions eagerly. They enjoyed the quiz, which included candy as a reward. The class was not overly energetic but not disinterested either; they became quite familiar with and involved in the topic.

I don’t think the progress of the lesson was as successful as I had hoped, and the students had a tendency to change their viewpoints rapidly. However, overall, I believe they were stimulated to have a deeper and more genuine concern about the environment and their world.

**Sample Lesson**

On Perception and Taking Action to Care for the Environment

- **Introduction**

  The teacher’s aim is to stimulate the students to raise their level of concern about the environment and to help them reflect on their daily life routines and surroundings. The teacher tries to help the students to see how modern life styles can harm the environment, and ultimately to be willing to change their paradigm of life in order to protect the environment. The concentration on getting high scores to enter college has resulted in many students’ neglect of important values essential to making the earth a better place. Teaching about environmental issues can no longer be overlooked. So the teacher should understand and realize the importance of this issue, and help to raise and maintain concern about it. This lesson is designed to expose students to the reality of environmental problems and to help them look closely at what they may do for environmental protection.

- **Objectives**

  To develop awareness of environment problems and nurture a critical view of development as it has occurred so far.

  To discover what we can do as citizens to solve environmental problems.

- **Procedure**

  **Conceptual Level: Knowing**

  1. Students use brainstorming techniques to list as many environment issues as they can think of.
2. Check the level of students' knowledge about and interest in environmental problems

- Materials needed: Tasks 1 and 2
- Time: 50 minutes

Conceptual Level: Understanding
1. Look at relevant pictures on the internet and read an article dealing with environmental pollution

2. Think about the causes and the results of environmental pollution with the following questions in mind:
   a. What did you notice about environmental problems?
   b. What do you think are some of the causes of environmental pollution?
   c. What do you suppose are the negative effects of environmental destruction?
   d. What is your attitude toward this kind of environmental destruction?
   e. Do you have any knowledge about groups that take actions in order to prevent or limit environmental problems?

3. Reflect upon responses

4. Arrange all the responses given.

- Materials needed: pictures of a rain forest that has been destroyed, thick smoke being emitted from a factory, a landfill, a big fire burning a forest, water pollution, soil pollution; an article mentioning examples of environmental destruction
- Time: 50 minutes

Affective Level: Valuing
5. Show how you felt, using "yes" or "no."
   a. Honestly, are you deeply affected by environmental issues?
   b. Honestly, are you personally concerned with these issues?
6. Answer the questions
   a. What factors influence your attitudes on this topic?
   b. What might change your stance regarding environmental problems?

7. Summarize the various responses the students gave with regard to these environmental problems.

Active Level

8. Watch a video, the documentary "McLibel" dealing with two activists, Greenpeace members fighting against McDonald’s methods and procedures which cause harm to the environment.
   a. Do you think they could be good models as activists for the environment?
   b. Do you agree with their action against a multinational company and the harm it has caused to the environment?
   c. Would you like to make a specific decision to take some action to protect the environment? (Choose something you would like to do afterwards.)
      - Ex. joining an environmental movement group, boycotting a specific product that threatens the environment, taking part in the 3R movement -- recycling, reduce, reuse, arranging proper waste management at home and at school, visiting a site related to the environment

- Materials needed: video "McLibel"
- Time: 50 minutes

Task 1
brainstorming
ENVIRONMENT
CLEAN WATER, RAIN FOREST, OZONE LAYER, ACID RAIN, DEVELOPMENT, PROTECTION, LANDFILL, WATER POLLUTION -- FACTORIES, GOLF COURSES, GARBAGE, STOCKS, CHEMICALS
Task 2

QUIZ

1. It is the biggest reclamation project in Korea, developing an area of 40,000 ha to acquire and reclaim land for farmland. However, many NGO groups are against it because of the environmental value of mud flats. What is it?

2. This is the opposite of fast food. Its slogans are to recover the original taste and to keep traditional foods. What is this?

3. It is one of the most toxic chemicals known. It was used by the US Army during the Vietnam War. Five people can be killed with only 1 mg of it. It can cause immune system damage and interfere with regulatory hormones.

4. What’s the fine for illegally dumping garbage in Korea?
   a. 100,000 won   b. 500,000 won   c. 1,000,000 won   d. nothing

5. What is the date of World Environment Day?

6. This term means the following: not unreasonably depleting natural resources, not producing waste products that significantly alter natural systems, and not undermining social stability. It meets the needs of the present without compromising the ability of future generations to meet their own needs. What is it?

7. To set up farmlands to provide Americans and Europeans with beef, the rain forests in South America are disappearing on a large scale. What is this process?

8. They are fuels made from coal or oil. They are produced by the very gradual decaying of animals and plants over millions of years. What are they?

9. A light but strong material that is chemically produced. It can be made into different shapes when soft but generates a lot of toxic gas when it burns.

10. Name two things that produce Freon gas in your home.

11. You might feel this symptom when you are in a closed space for a long time. You also feel dizzy and irritated, it induces headaches, and your ability to concentrate could be reduced. What is it?

12. This group has inspired people to demand their rights to a healthy environment. Choi Yol is the organization’s president. They have actively
participated in every environmental struggle and fought against the
government’s attempts to construct nuclear waste storage sites, and also
protested against the destruction of mountains to make golf courses.
What is the name of this group?

13. What are the following related to?
   - health risks to workers involved in its production and disposal of the
     resultant waste
   - risk of catastrophic accident
   - need for strict security

14. This is characterized by unusually cold ocean temperatures in the
    equatorial Pacific.

15. This is characterized by unusually warm ocean temperatures in the
    equatorial Pacific.

16. This is an international treaty which provides the framework for
    national action and international cooperation for the conservation and
    wise use of wetlands and their resources.

17. What does GMO stand for?

18. This is a natural phenomenon not caused by human beings. It results in
dead fish and they are visible as discolored patches of ocean water, often
    reddish in color.

**An article: some examples of environmental destruction (in text)**

**Example 1**

In Brazil, in central Africa, and in southeast Asia, people are cutting down
forests to set up farms to grow food and feed increasing populations.
(According to statistics, rain forests are being destroyed at the rate of 77,000
acres per day.)

The soil in which tropical forests grow is not particularly fertile. If it is
used for grains, in a few years it will be used up and become desert. The
damaged soil will not be able to store and preserve the water and there will
be floods. Nothing will produce as much oxygen as the forests or consume as
much carbon dioxide.

In addition, one half of the world’s animals and plants inhabit these forests.
They are disappearing rapidly. Do we humans have any right to exterminate
other creatures with which we share this earth? Imagine how barren the world
would be with such a decimation in the number of animals and plants!
Example 2
This is an excerpt from a magazine published in the United States.
* Five hundred thousand trees are cut down each week to create Sunday newspapers.
* A 1952 newspaper recently recovered from a landfill had decomposed so little that it was still readable.
* There are enough polystyrene foam cups on landfills today to circle the globe more than 400 times.
* Americans could fill 1,350-foot-tall twin towers of bottles they throw away in two weeks.
* The amount of used motor oil dumped on roadways in the United States each year is enormous. It is more than 10 times that of the 1989 Alaska oil spill.
* Americans throw away enough recyclable office and writing paper annually to build a 12-foot-high wall stretching from Los Angeles to New York City.

Example 3
In Mexico City, just going out can make you sick. Some people say that breathing the air there, polluted by cars and factories, is as bad for you as smoking a pack of cigarettes a day.

One reason for the problem is that smog is trapped above the city. Mountains surrounding Mexico City hold it in. A high layer of cold air holds the smog down -- like a lid on a pot.

Example 4
Looking out over his salmon pens near the Norwegian village of Kristiansand one day, Mr. Karl Olav Jorgensen witnessed a frightening sight. "It was as if the fish were trying to commit suicide," Mr. Jorgensen said, "swimming with their heads out of the water." Within two days all 22 tons of a poisonous seaweed had swept through the waters of southern Scandinavia, killing everything in its path.
Comments on the Lesson

When the students used brainstorming techniques to list anything they could think of with regard to the environment, they usually mentioned two categories, the negative effects of development and recycling. Pictures on the internet and some articles about the results of pollution allowed them to adopt more interest in this issue and develop more serious and informed attitudes toward it. Although it took more than thirty minutes for the students to read the article in English, they were able to access a great deal of information they had not been aware of previously. They also watched a video, Mclibel, but it was not as successful because many students lost interest before it finished, and it was not entirely appropriate for this lesson. Environmental issues were dealt with in the film and it also dealt with the issue of human rights. But its most important value was that it showed students one of the ways in which action to solve environmental problems can be taken: legally. After watching this documentary, the students themselves chose one or two courses of action: establishing a proper waste management system and joining an action group.

Students were inspired to show more interested in environmental problems as a result of this lesson and strongly felt the real seriousness of the kinds of environmental problems facing the world today.

One difficulty with this lesson in the Korean context is that the students feel reluctant into study something that is not directly related to the all-important college entrance exam.