Creating Environmental Education Materials To Teach English to Non-English Majors at Indonesian Universities

Abstract

The purpose of this paper is to explain the rationale behind the creation of a set of environmental education materials that would simultaneously teach English to non-English majors at Indonesian universities. The thinking behind both the environmental education and English learning elements of the materials is explained.

Environmental education began to become well-known about 1970 as a response to increasing levels of environmental destruction. In 1975, the United Nations established the International Environment Education Programme (IEEP). The IEEP formulated six objectives for Environmental Education (IEEP, 1975). The text of these objectives follows below, accompanied by my comments and examples of a way that each can be achieved.

1. **Awareness**

   To help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems. For example, people reading a passage about air pollution could make students aware of this problem and the dangers it poses.

2. **Knowledge**

   To help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and role in it. For example, a text for listening comprehension could include information which would increase students' knowledge about the causes of air pollution and possible solutions to the problem.

3. **Attitude**

   To help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement. For example, a story or song about endangered species could encourage students to care about protecting such creatures.

4. **Skills**

   To help individuals and social groups acquire the skills for solving environmental problems. These include scientific and technological skills, but also language skills. For example, students can use their language ability to write

pamphlets informing people about the risks caused by air pollution or letters to corporations or government bodies. Similarly, oral language skills would be important in convincing people to take action to decrease air pollution.

5. Evaluation Ability

To help individuals and social groups evaluate environmental measures and education programmes in terms of ecological, political, economic, social, aesthetic and educational factors. While everyone agrees that we must do something to protect the environment, there are many disagreements about how to do it. For instance, when they go shopping, students need to use reading and reasoning skills to evaluate which products are environmentally friendly or which are unnecessary.

6. Participation

To help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems; to ensure appropriate action to solve those problems. All the other five objectives come to nothing if students and others don't translate their awareness, knowledge, attitudes, skills, and evaluation ability into action.

Jacobs and Goatly (2000) examined the presence of environmental issues in ELT coursebooks published since 1990. Seventeen randomly-selected coursebooks were analysed in order to find the percentage of activities related to environmental issues. The 17 books contained 6,167 activities, an average of 363. Of those, 134 (2%) had environmental content, an average of 8 activities. Four of the books had an entire unit or lesson devoted to environmental issues. The percentage of activities with environmental content ranged from two books with none to one book with 8%.

The activities with environmental content were then examined to establish whether they involved participation in environmental protection. Seventy-six (57%) of activities with environmental content did not involving any type of participation on behalf of the environment. Three (2%) asked about students' own or classmates' participation. Another three (2%) questioned students about participation by others besides themselves and their classmates. Twenty-two (16%) of the activities with environmental content asked to read/listen to accounts of participation by others. In eight (6%) students read/listen to someone urge participation. Another eight (6%) asked students to simulate participation, 12 (9%) describe possible participation, and 2 (1%) actual participation

In looking at existing environmental materials, we noticed that most stopped at the awareness or knowledge levels. While these levels form a necessary foundation, we felt that, in particular, most materials lacked objective six: participation. Thus, for many of the lessons we included ways that students can be actively involved in protecting the environment, in addition to including a range of the other objectives.

METHODOLOGICAL FOUNDATIONS

The growth of environmental education reflects a new way that humans view nature. We believe that many of the changes in human's view of the environment have parallels in current trends in language teaching methodology. Table 1 presents an overview of these parallels. (For more detailed discussion, see Jacobs, 1993, 1995.)

TABLE 1

Trends in Language Instruction and their Environmental Parallels

#	New Views of the Environment and their Implications	New Trends in Instruction and their Implications
1	**View:** Nature has the right to be active and exist independent of people. Examples: Nature reserves; protection of endangered species.	**View:** Students should be active; Independence should be encouraged. Implications: Learner-centredness; Education linked with the communities where students live.
2	**View:** Diversity in nature is recognized and encouraged. Examples: Protecting biodiversity.	**View:** Diversity among students is recognized and encouraged. Implications: Learner-centredness; Using methods which suit a variety of different learning styles and intelligences.
3	**View:** Nature exists best as an integrated whole. Examples: Protecting the entire web of life.	**View:** Students learn best when knowledge is presented as an integrated whole. Implications: Integrated curriculum; Theme/Content based instruction.
4	**View:** Concern for the long-term effect on the environment of the production process. Examples: Alternative energy; reusing and recycling materials; reducing the amount used.	**View:** Concern for the process and long-term effect of instruction. Implications: Learning how to learn; Thinking skills; Intrinsic motivation; Links with the communities where students live.
5	**View:** Humans should join with nature. Examples: More time spent on outdoor activities; real plants in homes.	**View:** Teachers should join with students. Implications: Teachers read and write along with students; Before and while students and teachers collaborate, teachers model the behaviours they want students to use.
6	**View:** Cooperation, not competition, between nature and humans is emphasized. Examples: We seek to live with nature, not to conquer it; not using products made from endangered species.	**View:** Cooperation, not competition, between students is emphasized. Implications: Cooperative learning techniques; Collaborative skills taught.

From Jacobs (1995)

To summarize, we endeavoured to develop materials which combined the U.N.'s six environmental education objectives - knowledge, awareness, attitude, skills, evaluation ability, and participation - and the methodological features in Table 1 -

learner-centredness, links with the communities where students live, diversity of learning formats, curricular integration, thinking skills, teachers as participants and models, and cooperative learning. Of course, few of the units and lessons we developed include every one of these objectives and features.

On the language side, a five-step procedure was used to teach grammar and other language points. This is somewhat similar to the approach used by Ellis and Gaies (1999).

1. Comprehension

Students do a pre-reading activity to call up relevant schema. Then, they read a passage containing the environmental and language foci of the lesson. Next, students work together to respond to comprehension and discussion questions related to the environmental content of the passage.

2. Noticing

Learners return to the reading passage to do an activity to help them to notice the grammar point that is focused on in the lesson.

3. Understanding the grammar point

Learners study a brief explanation of the grammar point. Ellis and Gaies (1999) do this better than we did; they ask students to analyse how the grammar point functions and to formulate their own rule. Ellis and Gaies provide an explanation of the grammar point at the back of their book.

4. Practice

Students do contextualised activities to practice the grammar point. They activities also provide them with additional information on the lesson's environmental focus.

5. Communicative use

Students do a project involving them in activity on behalf of the environment. Each project has a language element, and learners are encouraged to try to uses the lesson's grammar focus.

References

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