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The treatment of ecological issues in ELT coursebooks

George M. Jacobs and Andrew Goatly

This article reports a study examining 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. Such activities were then examined to establish whether they involved participation in environmental protection. The results are discussed in light of teaching methodology and United Nations environmental education objectives.

Introduction

As human damage to the environment has become a major international issue, environmental education is now a part of education around the world. The United Nations formulated these six objectives for environmental education (UNESCO–UNEP 1976):

1. Awareness of environmental problems.
2. Basic understanding of the environment and its problems, and human beings' role in relation to the environment.
3. Attitude of concern for environmental problems.
4. Skills in overcoming environmental problems.
5. Ability to evaluate proposed solutions to environmental problems.
6. Participation in solving environmental problems.

We undertook the current study to investigate the treatment of environmental concerns in second language learning materials. Environmental education is conceived as being cross-curricular because the environment relates to all areas of study (Ghafoor-Ghaznawi 1993). Thus, language education, including second language education, has a role to play in helping people to learn about and participate in environmental protection. Indeed, ELT coursebooks and other ELT materials have for many years included environmental themes, such as recycling, alternative energy, and humane treatment of animals. In fact, a small number of ELT coursebooks are devoted exclusively to the environment (e.g. Brown and Butterworth 1998).

The inclusion of environmental issues in ELT coursebooks fits well with the trend in communicative language teaching towards theme-based and content-based instruction. Students, in at least some cases, seem to welcome environmental content. For instance, a preference for the inclusion of environmental topics was expressed by young adult East Asian students surveyed by Richards (1995) in preparation for writing a coursebook series.

Despite efforts towards environmental protection and some areas of improvement, we humans continue to devastate the planet at an increasing rate. Orr (1992: 3) puts this more concretely, and the distressing picture he painted nearly a decade ago is even more pressing now:

If today is a typical day on planet earth, humans will add fifteen million tons of carbon to the atmosphere, destroy 115 square miles of tropical rain forest, create 72 square miles of desert, eliminate between forty to one hundred species, erode seventy one million tons of topsoil, add twenty-seven hundred tons of CFCs to the atmosphere, and increase their population by 263,000.

Given that this rate of attrition cannot be sustained, it may well be felt that environmental education should be enhanced in ELT as elsewhere. In the current study, we investigated two questions regarding environmental education in recent international ELT coursebooks:

1. Do ELT coursebooks published from 1990 onward—written for an international audience rather than for students from one country—and aimed at teaching all four skills, rather than focusing on a particular skill or skills—contain topics related to environmental issues, and if so, to what extent?
2. Where those coursebooks do include environmental issues, are they dealt with in a way which encourages participation to protect the environment, in accordance with Objective 6 of the United Nations Environmental Programme (above)?

We focused on participation because we see this area as being of special importance, although it is still particularly lacking in environmental education materials. We worry that environmental education is being treated as just one more academic topic for students to study, with no real connection to their lives and the world beyond the classroom (Freire 1970). As the German philosopher Goethe put it some 200 years ago, ‘Knowing is not enough; we must apply. Willing is not enough; we must do.’

Method

From 120 ELT coursebooks in the SEAMEO (South East Asia Ministers of Education Organization) Regional Language Centre’s large collection that matched our criteria, 17 were selected using a table of random numbers. While random selection does not guarantee a representative sample, it is one well-established means of attempting to provide a fair sampling of the larger population. However, some well-known series were not examined, while some coursebooks that were included may not enjoy wide use. Another sampling approach, assuming the data is available, would be to examine best-selling coursebooks.

To answer the first research question, we began by counting the total number of activities in each of the coursebooks, following as closely as possible the demarcation system employed by the books’ authors. Optional activities were counted, so that if students were asked to choose from one of three options, all three were counted. Review units and grammar practice activities at the back of a book or the end of a unit were counted, but tests were not. The coursebooks were then examined for the presence of environmental issues, defined as materials that dealt with environmental problems, such as endangered species, and environmentally friendly practices, such as using solar power. Even if the activity dealt with grammar or pronunciation practice, if the content was an environmental issue, the activity was included. For instance, we counted when Belgrave (1993: 30) presents a poster featuring 25 words that include the prefix ‘re’ in describing actions to help the environment, such as ‘reuse’. The task also asks students to employ dictionaries to determine for each word whether ‘re’ is pronounced /ri:/ or /rI/.

The natural environment was considered, but not human-made environments, or descriptions of nature, although Lester and Hugh (1992: 15) have a paragraph describing the habitat of bowerbirds. Neither did we count materials that might generate hostile feelings toward nature, as when Lester and Hugh (1992: 9) refer to spiders found under toilet seats who ‘... hate people sitting on them. They also have a bite that can kill and a target that is difficult to miss.’

The inclusion of environmental issues was coded at three levels:

1. Activity in a unit
2. Element of an activity, for example when students are presented with a number of headlines, not all of which involve environmental issues, and have to say what they think each headline is about (Doff and Jones 1994: 65).

3. Option within an activity. Here students are asked to think of something they would like to change in another country; 'the killing of certain animals', for example, is a suggested change. Students are asked to compose a letter in English, send it to the head of the foreign country, and if a response is received, to report it to the class (Swan and Walter 1992: 65).

From this counting and coding, a percentage of activities with at least some environmental content was derived for each book, as well as a breakdown of the level at which the content appeared, e.g. as an element of an activity.

Next, to answer the second research question, each instance of the presence of environmental issues was coded according to whether participation is encouraged and, if so, what type of encouragement. Teachers' books, where they existed, were consulted. The categories used in the coding of types of participation were arrived at by the researchers after consulting two professors who teach environmental education, and looking through environmental education materials from other parts of the curriculum, together with the coursebooks used in the present study. We do not claim that our coding system accurately and comprehensively captures this variable, since countless factors underlie human behaviour, but we do believe it offers some illumination. Furthermore, as described below, this system yielded a reasonable level of inter-rater agreement. The categories, with examples of some, are:

1. Self-reported: Students tell/write about their own or classmates' participation. This includes when students interview each other, for example, 'Work in groups. Find out how 'green' other students are. How do they try to help the environment? What do they do that's bad for the environment? Who's the 'greenest' person in the group?' (Doff and Jones 1994: 110).
2. Reported: Students report on the participation of others outside their class by gathering data or by remembering, for example, 'Which types of "clean" energy do you have in your country? Use an encyclopedia or geography book to find the information and write a paragraph about it' (Farrell *et al.* 1995: 103).
3. Read about/listened to: Students read a text or listen to a tape about how others participate or could participate. By itself, the fact that an environmental protection group such as the WWF, for example, is mentioned does not constitute participation, unless the group's activities are described.
4. Recommended: A text (not including instructions which accompany the text) urges students to participate, e.g. in Belgrave (1993: 29) students listen to an audiotape on which an environmentalist says 'And, when you've worn out the clothes, or you've got tired of the clothes or the toys ... actually handing them on to someone else is a very good way of recycling and re-using, which is extremely environmental friendly ...'
5. Simulated: students role-play typical situations, or imagine that they are in a position to participate in efforts to protect the environment. Graves and Rein (1990: 85), for example, ask students to pretend to be members of a committee working to elect their favoured candidate for mayor. One of their tasks is to select problems (pollution is one possibility listed) and say what actions their candidate will take to solve them.
6. Potential action: Students tell/write/choose what they or others will/could/would do. For example, a list of 'Five Things You Can Do to Help the Environment' is presented to students, who are asked to add another suggestion (Doff and Jones 1994: 107).
7. Real: What students are assigned to do, or what is listed as an optional assignment. We saw such real participation as being of three possible types:
 - a. Educational: Students try to educate others, e.g. by making posters and displaying them.
 - b. Behavioral: Students do something that directly helps the environment. Of course, there are many controversies as to what does and what does not help the environment, as shown, for example, in the controversy over the value of recycling.
 - c. Exerting pressure: Students may send letters to companies and governments in an attempt to bring pressure on them to participate in helping the environment. For instance, Swan and

Walter (1992: 65) include the following activity: 'Is there something you would like to change in another country—the killing of certain animals, or the making or testing of certain types of weapons or chemicals, for example? Work alone or with another student to write a letter to the head of the country in English. Find out where to send the letter by asking the consulate or embassy of that country. Send the letter. Report any answers to the class orally.' If an activity contained more than one type of participation, the main type was recorded. However, if it was divided equally, the score was divided among the various types of participation involved.

We measured inter-rater agreement for the following: (1) calculating total number of activities; (2) activities with environmental content; (3) whether the entire activity was about the environment, or whether the environment was only an element or option in the activity; and (4) whether or not participation was involved, and if so, what type of participation. This was done by having one of the researchers and another teacher independently rate about 10% of the data. Agreement was 93%, 95%, 100%, and 92% respectively.

Results

The 17 coursebooks contained a total of 6,167 activities (average= 363). Of these activities, 134 (2%), had environmental content (average = 8): 80 at the activity level, 50 at the level of element in an activity, and 4 as an option in an activity. 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%. Both the books with no environmental content were for low proficiency students. In general, coursebooks for beginners and high beginners had less environmental content, although one book for high beginners (Phillips and Sheerin 1990) had 5% environmental activities.

As for participation, 76 (57%) of the activities with environmental content were rated as not involving any type of participation on behalf of the environment, 3 (2%) asked about students' own or classmates' participation, 3 (2%) questioned students about participation by others besides themselves and their classmates, 22 (16%) asked students to read or listen to accounts of participation by others, 8 (6%) involved reading about or listening to someone urge participation, 8 (6%) asked students to simulate participation, 12 (9%) called on students to describe how they could or would participate, and 2 (1%) asked for actual participation in environmental protection.

Discussion and conclusion

The first research question considered the presence of environmental issues in ELT coursebooks. Based on the sample used in this study, such issues appear to be quite common. The fact that environmental issues seemed to occur less often in coursebooks for lower proficiency students might be attributed to materials writers believing that, at this level, students lack the language tools needed to interact on this topic.

Is 2% environmental issues content the right amount? Some might argue it is too much. The faculty adviser of a Singapore junior college's green club explained that students at his college did not participate in recycling because they had heard so much about the environment in secondary school that they had become sick of it. Along the same lines, in one of the coursebooks in this study (Lester and Hugh 1992: 17), in a unit entitled 'Are you green?', the authors ask, 'Do you think people talk too much about the environment?'

Jones (1993) feels that second language teachers give too much attention to social issues. She argues that instead of forcing social issues upon students, teachers should be concentrating on their job, i.e. teaching the language. Jacobs (1993) counters by arguing that language is often best taught through content, and that as educators we have a broader role to play, which

includes helping students to become good citizens. Brown (1998) takes a similar position, stating that if we follow just four principles, as listed below, social issues can be included in content-based instruction without forcing students to think and act as the pawns of their teachers:

1. Allow students to express themselves openly.
2. Genuinely respect students' points of view.
3. Encourage both/many sides of an issue.
4. Don't force students to think just like you. (ibid.: 254)

Brown adds that even language itself is not neutral. He cites Halliday's (1993) point that treating elements of nature such as air, water, and oil as non-count may mislead us into seeing them as inexhaustible resources (see Goatly 1996 for further discussion of language and environment). Critical discourse analysis (e.g. Fairclough 1992) argues that any text expresses an ideology, whether overtly or latently. Every text classifies phenomena in the world, takes an attitude to what it describes, and positions the reader socially. From this perspective, the idea that language can exist or be taught neutrally or without content or outside social interaction is a myth. Johnston *et al.* (1998) make a similar point about the moral significance of classroom routines and discourse.

The second research question asked whether coursebook activities concerning environmental issues encourage participation towards resolving those issues. Learning for participation, not just to pass tests, is the focus of language teaching methodologists, such as Auerbach (1994), working in the tradition of Dewey and Freire. They propose a social transformative perspective that stresses language learning as a basis for action on social issues. This is best done by connecting the classroom with students' lives beyond school. Environmental issues certainly offer many opportunities for such connections, given that the effects of ecological problems are as close as the air we breathe.

With reference to participation, Brown's principles, which focus mainly on ideas, may need to be taken further. While we set examples of informed participation for our students, we should let them decide whether or not they wish to participate. For instance, in the activity described earlier (Swan and Walter 1992), which asks students to write a letter and send it, note that, while the instructions point the students towards environmental issues, they allow them to write about anything they would like to change in another country. In this case, teachers can set examples of informed participation by writing letters of their own, explaining why they wrote the letters, and showing them to students.

In the only other activity found in the study that involved students in real participation, they were asked to work in pairs to create an advertisement that would persuade people to become members of a conservation group (Phillips and Sheerin 1990: 62). This might seem to be a way of compelling students to agree with the coursebook's assumption that conservation is good. One way of dealing with this would be to inform students of organizations that take positions opposed to those of most conservation groups, such as those which maintain that global warming is just an unproven theory.

The fact that participation category 7—actual participation—accounted for the smallest number of activities deserves attention. Two explanations come to mind. First, that materials writers may feel that they are, after all, writing educational materials, and that it is beyond their mandate to tell students what to do in matters beyond language learning. This concern has already been addressed. Second, the books in this study were produced for the international market. As environmental issues take on very different forms between and within countries, it

may be considered to be difficult, if not impossible, to propose actions that would be universally suitable. This concern suggests the need for teachers and students to develop their own materials or to adapt coursebooks, rather than following them slavishly. Along similar lines, project-based work (Richards 1995) allows students to take more initiative. Projects found in books on environmental education (e.g., Greig *et al.* 1987) include auditing home energy use or waste creation, investigating and acting to reduce local pollution sources, carrying out community or school education campaigns, and developing and implementing ways to recycle or reuse materials.

In conclusion, we believe that environmental concerns should be retained as one of many social issues in the second language curriculum. Education in general, and about the environment in particular, needs to link learning with the world outside the classroom. And although environmental problems can seem overwhelming, we can draw inspiration from Helen Keller, who overcame blindness and deafness to become a social activist in the early 20th century:

I am only one, but still I am one.

I cannot do everything, but still I can do something.

And because I cannot do everything, I will not refuse to do the something that I can do.

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The authors

George M. Jacobs is a language specialist at the SEAMEO Regional Language Centre in Singapore. He has taught elsewhere in Asia, as well as in the Pacific, and in Central and North America. Among his recent publications is *Linking Language and the Environment* (Pippen). He is vice-chair of the Education Group of the Nature Society, Singapore. Email: gmjacobs@pacific.net.sg

Andrew Goatly is a lecturer at the National Institute of Education, Nanyang Technological University, Singapore. He has taught elsewhere in Asia, and in Africa and Europe. Among his recent publications is *The Language of Metaphors* (Routledge). Email: goatly@ln.edu.hk