



Viewpoint

Developing Modules on the Topic of Education for Sustainable Development: A Cross-cultural Approach for Engaging in International Collaboration and *Furikaeri*

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Abstract

The aim of the project reported on in this viewpoint paper is to develop a package of curriculum materials for use in the teaching of the topic of Education for Sustainable Development (ESD) at the primary school level. The project is an international collaboration between teachers in primary schools in Cape Town (South Africa) and Toyko (Japan), supported by researchers at two Universities – The International Christian University (ICU) in Toyko and The University of Cape Town (UCT). The curriculum materials are being developed jointly by teachers in the two countries, through a collaborative process that involves a number of reciprocal visits to each others' classrooms and participation in video conferences together. Once completed, the materials will be trialed in the respective contexts. A further feature of the project is the use of the Japanese system of Furikaeri (or 'lesson study'). This is a form of reflective practice which has been shown to be a most useful tool in support of teacher professional development.

Introduction

At the World Summit on Sustainable Development in Johannesburg, South Africa (2–4 September, 2002), the Japanese delegation made a suggestion to establish a Decade of Education for Sustainable Development (DESD) in order to highlight the need to promote changes in approaches to education so as to integrate the principles, values and practices of sustainable development. In December 2002, the United Nations General Assembly adopted Resolution 57/254 to initiate a United Nations Decade of Education for Sustainable Development (DESD), to run from 2005 to 2014. Governments, international organisations, NGOs, educational institutions and schools are now variously engaged in campaigns and programmes to promote ESD on a global scale.¹

This paper reports on a two-year collaborative project in progress involving teachers and researchers in two countries – South Africa and Japan. The project seeks to develop a learning module for use in the teaching of Education for Sustainable Development (ESD). The module strives to be well grounded in the respective local socio-economic and cultural environments, whilst at the same time projecting a globally shared perspective on the topic. And most importantly of all, it is intended for joint use in Grades 4–6 classrooms in the two countries.

An important secondary aim of the project is to elaborate a longer term plan for developing ESD modules for use at both the primary and secondary education levels, to be implemented against the time frame of the United Nations Decade of Education for Sustainable Development

(2005–2014). As such, the project has the potential of making a unique and significant contribution in the emerging field of ESD. It is hoped that the project will also provide a vehicle for harnessing Asian and African indigenous wisdom and knowledge in support of sustainable development, whilst at the same time demonstrating the value of international educational cooperation.

A Cross-cultural Approach to ESD

One of the principal characteristics of the Cape Town–Mitaka joint ESD module development project is its international or cross-cultural approach to ESD. The intention behind this approach is not to replace the national curriculum for ESD with an international curriculum but rather to enrich the national curriculum with an international or cross-cultural perspective.

Working in the same ‘twinned’ schools in the two countries, the development of the module will take place over a number of years across a number of grades. There is an expectation that producing, trialing and refining instructional material in this way will result in a product that has a high level of internal coherence whilst at the same time ensuring that it is closely aligned with the respective national curricula. In the case of the South African schools, environmental education forms part of the science curriculum. In Japan, environmental education forms part of general studies.

An added benefit of this sequential approach to materials production is that its development will track a cohort of children over a number of years of primary schooling. The primary schools participating in the project have all been actively engaged in environmental education with an emphasis on the development of the learners’ understanding of their immediate environment. Both the Cape Town Schools are registered eco-schools. The Cape Town–Mitaka joint ESD module development project seeks then to expose learners in the participating schools to a different or foreign perspective on sustainable development issues. From the first round of exchange visits between the two teams of teachers involved in the project, some common approaches to introducing environmental issues and concerns into the classroom are starting to emerge. However, these visits have also revealed the extent to which the respective curricula and environmental contexts differ – thus highlighting the challenges facing international collaborations which are fully committed to the development of shared curriculum materials.

Generally speaking, there can be two approaches for introducing an international perspective into a national curriculum framework. One frequently used one is an ‘additive’ approach. Here a teacher would, for example, engage his/her learners around the state of the river found near the school and consider its impact on the quality of soil and water in the surrounding area, and would then introduce the learners to a corresponding situation in another country, and then draw comparisons between the two. So the learner is being asked to consider the local context not only in terms of its socio-economic and environmental parameters but also in relation to the foreign situation. Information is accessed via appropriate literature, including texts, photos and/or video-recorded material. These days such information is readily accessible via the internet. However, the process of introducing the foreign situation can be enriched considerably by having a ‘foreign’ teacher present providing the ‘additive’ instruction.

The other approach, which may be termed ‘integrative’, would take the learner one step beyond the above-mentioned local environmental concern and ask them to consider a ‘global’ state of environment, using multiple factual situations drawn from different countries. This is the approach adopted here, where a local river system from Mitchells Plain in Cape Town and Mitaka in Toyko are studied by both groups of learners. Once a broader reference frame has been established, the learners in both contexts are more likely to grasp the significance of global sustainability issues.

To enhance these learning opportunities, the project is examining the possibility of holding a number of joint classes in which the South African and Japanese teachers engage in team-teaching over the internet using video-conferencing.

Research Focus

The project is underpinned by a collaborative research initiative held by researchers at the two universities that are supporting the teachers in the ESD module development – the International Christian University (ICU) in Yoyko and the University of Cape Town (UCT). One interesting research focus is to measure the impact of the implementation of the Japanese system of *Furikaeri* or lesson study as a tool for reflective practice (Fernandez, 2002). *Furikaeri*, which literally means ‘reflection’ in Japanese, is a practice that has received some attention in the West. It also constitutes a primary instrument in educational cooperation activities supported by Japan’s International Cooperation Agency (JICA).

Here in South Africa, in collaboration with the University of Pretoria, JICA supplied technical support for an extensive retraining programme of secondary mathematics and science teachers in Mpumalanga. The Lesson Study method was successfully used here to help institute a school-based in-service training system.² Lesson Study practice is usually organised as a series of lesson-improving activities by a group of teachers (e.g. all the teachers of a primary school, maths teachers from neighbouring lower secondary schools) either with or without the direct support of the local board of education.³ Typically it follows a number of sequential steps:

1. A group of teachers agree to conduct a lesson study session on a given topic in a given grade (e.g. the function of a river in a local eco-system in Grade 5).
2. One teacher is assigned the task of developing a draft lesson plan.
3. The draft lesson plan is then circulated to the other teachers in the group, who offer their suggestions/comments for improvements. These are then incorporated into the lesson plan to be delivered in class.
4. The assigned teacher conducts a class using the prepared lesson plan, with all the teachers observing (and taking notes) in the classroom.
5. All the teachers get together for a post-lesson conference. The conference opens with some initial reflection comments by the teacher who delivered the lesson, and in the ensuing discussion the other teachers offer their observations. Particular attention is given to identifying concrete ways to improve the lesson plan.
6. The organiser of the group wraps up the meeting.

7. The assigned teacher prepares a report on the exercise, which is then shared by all the teachers.

Over the longer term the Lesson Study may be an effective strategy for the professional development of practitioners and potentially, be a mechanism for change oriented and expansive learning (Engeström, 1999, 2001; Lotz-Sisitka, 2008). Each of the four school contexts (two in South Africa and two in Japan) will be handled as separate case studies to seek out commonalities and possible contradictions or trends based on interviews with the educators and lesson study critiques using the theoretical lens described.

Using the Lesson Study approach has a number of merits. Firstly, it facilitates the establishment of a practical framework for the joint module development activities. This would make it easier to account for cross-cultural differences in the teaching and learning practice between the two countries. Secondly, as the two teams become more experienced and skilled in the use of this method, the ESD module to be developed would improve in quality and practice. Finally, the joint experience by the South African and Japanese teams in using this method may shed a useful light on how international collaboration work may be organised for ESD.

Conclusion

In summary this short Viewpoint paper describes an initiative between schools in two countries to jointly develop ESD modules that are relevant in a cross-cultural context. The nature of the process embraces an international approach to professional development and reflective practice. The outcome that is envisaged is a protracted study that has an impact on the development of practitioners and ultimately, impacts positively on learners' ideas and actions. As outlined above, further research will document how this process will emerge.

Notes on the Contributors

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