Response to ‘Introducing PRA techniques in the learning of environmental education in Southern Peru’

Sonia Gomez Garcia and Jose Pizarro Neyra. PLA Notes 40, pp13-17

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Article summary
The article presented some of the participatory approaches used in an Environmental Education (EE) course in a school in Tacna, Southern Peru. The course is part of the official curriculum of the school and involves two hours of interactive teaching-learning per week to develop knowledge of the intricate relationship between mankind and nature.

The project’s objectives are:
• to show the benefits of a sustainable lifestyle to the students through education
• to improve their knowledge about the environment (information objective)
• to develop their capacity and skills regarding finding solutions to environmental problems (action and participation objectives)

The subjects covered are taught by drawing on students’ own opinions and information, encouraging them to reflect on and change their behaviour, rather than by the teacher feeding them information. Students find this an ‘entertaining, more interesting, and democratic’ way of learning, but the objectives of the project go beyond this. The authors argue that through the students developing their knowledge, their families also improve their knowledge and in this way communities are in a better position to solve their environmental problems.

However, they also identify some limitations to using participatory techniques in a teaching environment:
• firstly, there is not much space to incorporate them into formal school curricula
• secondly, teachers need training in participatory techniques, as well as having the right approach and attitude in using them

Comments on the article
I wish to react to the above article drawing on my experience as Environmental Education and Training Officer with the UNEP Environmental Policy Implementation Programme. In developing environmental education programmes, we have faced many of the issues raised in the article by Garcia and Neyra.

1. Reasons for poor environmental education

Conceptualisation of environmental education
One of the conclusions drawn by the authors – that the disadvantage of using participatory methods in a teaching environment is that there is not much space to incorporate them into formal school curricula – is not limited to Peru. This is a global problem and its root does not lie in participatory techniques, but rather in the conceptualisation of environmental education.

When environmental education is considered as an additional subject to the curriculum, its value is greatly diminished. For this reason the UNEP-UNESCO International Environmental Education Programme recommends that environmental education should be incorporated within existing subjects. This is discussed further below.

Inappropriately trained teachers
The other reason why EE is not effectively taught is inappropriately trained teachers, and lack of user-friendly environmental information/teaching and learning resources. Teachers and trainers who try to initiate environmental awareness and action suffer from two major setbacks: firstly, lack of appropriate content, and secondly, inadequate teaching methods.

Teacher education programmes in most countries are subject-specific and thus their graduates are not able to function in related fields. At the primary level it is better since trainees are required to teach across the curriculum, but as you go up (secondary and tertiary) teacher education becomes narrower, so much so that it becomes difficult for teachers to integrate and infuse environmental themes into their subjects. A rather defeatist alternative
has been for environmental education to be introduced through co-curricula activities such as clubs and societies, thereby alienating environmental issues from everyday life and forming exclusive clubs/lobby groups.

2. Moving from learning to action
Teachers as co-learners
On the whole most EE efforts tend to emphasise the teacher as the source of knowledge, and not as a co-learner who facilitates learning. As Garcia and Nerya state, ‘Students have valuable knowledge about their environment, which has been developed through daily life…’ but often this is ignored. I wish to go a little further and say that students only have a fraction of the knowledge held by a community, especially indigenous knowledge.

The authors state that ‘families of students improve their knowledge about subjects related to the environment through interactions with the children.’ This is a very important benefit considering that schools are institutions set up to meet societal needs. However, it is not easy if in the first place the parents are not involved in the learning process in the school activities.

Environmental action learning
It is important to extend the role of sustainable development education (environmental education) beyond mere acquisition of knowledge to formation of self-sustaining positive lifestyles in teachers, students, parents, and the communities in which the school is situated. Environmental Action Learning (EAL) is an approach to environmental education that recognises that schools are set up to meet societal needs and that the communities from which students come, and in which schools are located, possess immense knowledge that can be harnessed to solve real problems through practical activities.

The weakness of classroom-bound participatory methods, especially within a system that sees environmental education as an additional subject in the curriculum, is that we tend to dwell on knowledge. In this way we lose the game. Participatory teaching methods have great potential for developing life-long self-sustaining production and consumption life-styles. But to be able to exploit this potential, environmental education must be based on practical participatory activities to solve the real problems of the school and the surrounding communities. This requires proper conceptualisation that brings together all stakeholders from the very beginning of curriculum design, development and implementation.

The starting point must be an appreciation that no single subject in the curriculum can claim to handle exhaustively all environmental issues. It follows that there should be a school-wide coordinated effort, bearing in mind that schools are part of the greater community.

The school administrator appoints a dedicated person/group of people to coordinate environmental action learning (EAL). This person should be trained in participatory techniques. The coordinator should then build consensus among stakeholders (students, parents, teachers, and members of the community in which the school is situated) to come up with a school-community policy on environmental action learning (EAL), and nominate/elect a board of members. A key element in environmental action learning is therefore establishing a strong link between the school and its immediate communities. In this way parents of the school and members of these communities feel part of the learning process and hence are more likely to follow up on activities.

After establishing this, the school should formulate curriculum-wide environmental education activities so that it is agreed on the best approach to handle environmental education as an inter-disciplinary body of knowledge using carrier subjects (nature study, biology, etc.) and communication subjects (e.g. languages). All subjects in any education system have opportunities to integrate/infuse environmental aspects in the curriculum.

Example of EAL
The strongest case for environmental action learning (EAL) comes when the school in partnership with the community develop practical activities together. The Arya Vedic Girls School in Nairobi, Kenya is an excellent example here. The school is located within Nairobi city adjacent to restaurants, butcheries, supermarkets, and hawkers’ stalls. After establishing the school-community partnership, with the required members of the board chosen from among students, teachers, and the business community, the first task was to identify an immediate pressing environmental problem on which to collaborate. Using brainstorming techniques and other participatory methods, an illegal dumping site was identified as the most pressing problem. The business community contributed the money required to hire trucks to haul away the garbage and buy materials for buying fencing wire, posts, dustbins, and flowering plants. After one month the site was so clean and green with attractively landscaped grounds that people stopped dumping their garbage on the site.

However the removal of the garbage created a new problem because street children who used to scavenge on it now found themselves without food and a source of income (formerly generated from collecting and selling paper to recycling plants). This was tackled by the business community providing foodstuff and clothing to the school where street children were then invited for a meal; after a shower and a change of clothes! On its part the school encourages its teachers to volunteer to teach these children various subjects. Students on the other hand organise events to raise funds so that the programme is self-sustaining.

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Environmental education policy

The major challenge to environmental education in formal and non-formal education is that unless there is a clear policy by the government, EE is treated superficially, in most cases being left to a few teachers who have the personal zeal to advance the cause of environmental conservation. For this reason, UNEP is focusing on influencing policy formulation.

Resources on environmental action learning


This publication is a rich resource material on Environmental Action Learning. Two cases from already practising eco-schools are presented as illustrations. Educators and trainers of teachers will find this resource useful for planning and implementing Environmental Action Learning activities in their curricula and co-curricular activities. Available free of charge, subject to availability.


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Readers are asked to check our website at http://www.unep.org/Training to see other resources available.

To order copies of these publications, please contact:

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