Introduction

The project “Young Friends of Nature” was created to produce visible results in the areas of sustainability and structural change in various communities in Sao Paulo, Brazil. It is an initiative of the Association for Nature Conservation and Improvement of the Quality of Life (BioMA Institute), in partnership with Sebrae-SP (support office for small and micro-enterprises in Sao Paulo). In 2001-02, the BioMa Institute did not initially succeed in realizing its goal of promoting integrated and sustainable development in the settlements of the Pontal do Paranapanema region. After an evaluation of the project, it became clear that in order to bring about positive change and better connect with community leaders, a new project would have to be launched. This time, the focus would be on working primarily with students and teaching staff. This decision was based on the recognition that teachers are an intrinsic part of any community, with a significant influence on many citizens.

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The BioMA Institute, Brazil

Improving the quality of life in the communities of Sao Paulo

Aieska Marinho Lacerda Silva and Tarcisio Cardieri
BioMA Institute and participating Organizations

The BioMA Institute is a civil society, nonprofit and public sector organization. The Institute was established in 2002 following its participation in Project 7 Sigma, an initiative promoted by the Brazil-based management firm Amana-Key that dealt with the theme of societal change and reinvention. The mission of BioMA Institute is to promote the improvement of people’s quality of life through human development projects, in order to disseminate and transfer knowledge about sustainable and supported development.

The Institute’s mission is carried out through projects with this focus and objective in mind. The projects are executed through partnerships with public agencies, schools, universities, companies, associations, and other non-governmental organizations. These efforts target Brazilian regions with a low Human Development Index.

The Institute’s projects have been financed by the National Fund for Development and Education (FNDE, Fundo Nacional de Desenvolvimento e Educação) and the Ministry of Education and Culture (MEC, Ministério de Educação e Cultura). The Institute has also received support from the Secretaries of Education from fourteen cities; participating schools and their members; the Social Service of the Industry (SESI); of the municipality Presidente Prudente, and the Naia Institute.

Philosophy of the Project

The “Young Friends of Nature” project involves the analysis of problems and issues affecting local schools and their communities. The BioMA does not focus on a few selected aspects of the learning environment; instead, we adopt a holistic approach to study the entire educational setting, which results in a better quality of life for all involved. This is our central mission and philosophy. The aim of the project is also to acquire knowledge about the localities, and to improve relationships with their community members. This project seeks to always take into account the realities of the communities and of the participating schools.

In each of the participating schools (usually comprising a group of approximately 300 pupils), a university trainee acts as a monitor to distribute questionnaires, undertake a survey, and employ other instruments to observe and consult on the local situation. By working closely with the schools’ teachers and pupils, the university trainee is asked a seemingly countless number of questions relating to community development and general social issues.

For example, issues of race, gender, religion, sustainable development, misery, hunger, health, access to information, violence, social and economic justice, and peace have all been identified as areas of concern within the school environment. It has become clear that teachers and pupils are very aware of those issues that must be addressed in order to successfully achieve their – and our – common objectives.

Students and teacher sharing about different interrelated issues.

The active participation and feedback of school stakeholders has been very encouraging. As a result of the Institute’s activities, each school has been able to identify its most pressing needs and concerns. Together with the local communities, the school has then been given the option to develop (or not) a small project, utilizing local resources for support as well as the guidelines and supervision of the BioMA Institute.

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[26] The Naia Institute developed a version of the Earth Charter adapted for children, which the BioMA Institute has used in its work.
The Earth Charter has been used as a framework for discussing and analyzing each situation presented in the classrooms. The Charter has helped to introduce and promote the idea of executing sustainability-related activities among parents, teachers and community members.

The key has been to involve the local community, to disseminate knowledge, and to enhance the dignity and autonomy of the community members. Empowered, each individual has been given the power to enact change and to contribute to the promotion of an improved quality of life and sustainable development within his/her own community.

**Timeframe of the Project**

The “Young Friends of Nature” project began in May 2005, and continued over the course of the next two years. In twelve cities of the Pontal do Paranapanema region, the project was launched in January 2006, and lasted for six months. Approximately 11,000 pupils, 32 municipal primary and secondary schools, and 500 educational professionals participated directly or indirectly in the project. In the city of Sumaré, the project was initiated in May 2006 and is still in progress. Similarly, projects continue to be ongoing in five different schools, comprising approximately 6,500 pupils and 150 educational professionals.

**Objective**

The main objective of the project is to put into practice those principles and values that promote respect for the universal values of human life. Disseminating information and raising awareness among participants, who will then strive for solutions in their own localities, can help achieve this objective.

**Methodology**

The Earth Charter serves as the fundamental core of all our activities. The main objective of the latter is to involve the greatest number of educators and young people possible in building a society that promotes the values of sustainability. Until the time of writing, the project has already been carried out in more than thirteen cities, reaching 37 schools, 600 educational professionals and 17,000 pupils.

The project is designed to be carried out in the following six phases:

1st Phase: Sensitization and trust building among the participants.

2nd Phase: Insight into the realities of each school through the use of various instruments, such as surveys, questionnaires, and live diagnosis. Through this phase, a deeper knowledge can be acquired about the local problems faced by the schools and communities.

3rd Phase: Enhancing the capacity to dream – through the use of pedagogical tools such as the Construction of the Dream Tree and the Wall of Lamentations.

4th Phase: Increasing the awareness of the principles and values of the Earth Charter.

5th Phase: Design and implementation of new teaching activities that address those problems identified during the live diagnosis. The new activities can then be used to complement the existing school curriculum, and are aimed at promoting the Earth Charter principles.

27 The central methodology of the project was designed in collaboration with partner organizations and, in particular, through the participation of the following advisors: Dr. Maria Rita Avanzi (Doctor by Education Faculty of USP); Alessandra Buonavoglia Costa Pinto (Master in Environmental Science by USP); and Elisandra Girardelli Godoi (Master in Education by Unicamp).
6th Phase: Promotion of activities to be undertaken by schools and communities, in order to form concrete action plans aimed at providing a navigable path to sustainable development.

Project’s Steps

In this project, each participating school is invited to map out some problems or situations needing to be addressed or changed. For example, one school identified the over-consumption of natural resources as a problem, including the excessive use of water and food. Principles three to six of an adaptation of the Earth Charter for children were used as pedagogical tools to bring these subjects to the fore. Our project facilitators then discussed these problems with the pupils and teachers, and these themes were re-visited through games, readings, and songs. The latter activities proved to be useful in terms of analyzing the problem and searching for appropriate solutions and actions.

Here, creativity helped put the principles into practice. Teachers from across various disciplines have since drawn on similar pedagogical methods in the classroom to approach questions and themes in a creative and multidisciplinary manner. The following are two examples of this type of approach.

Example one: Wasting water and other natural resources

The first step was to determine how water was transported to the school, and to verify the supply source (i.e. from which river, lagoon or dam). Second, a collective effort was made to evaluate the water’s quality, how many litters the school consumed, and how much the water cost. Drinking fountains, toilet bowls, leakages, and garden irrigation were identified as the main sources of wasted water. To conclude, we disseminated information about which actions could be taken by pupils and school community members – once they had this information – to modify the situation and prevent wasting this natural resource. To further address this problem, the school community launched a school campaign to reduce the waste of water by 20%.

Example two: Problems during school mealtimes

Through an analysis of the school’s mealtime periods, it was determined that the presentation, as well as the manner in which food was served to children, was unsatisfactory. The children did not use tableware, such as forks and knives; instead, they only used spoons. The pupils were not capable of serving themselves; they had to be served by adults. Also, the use of glass plates was forbidden due to their perceived risks for children; instead, they were substituted by disposable plates, thereby producing more waste. The menu was found to lack the variety of foods necessary for a balanced diet. This was primarily due to the methods used to process the food, which furthermore generated a substantial amount of waste in the cafeteria.

To address these issues, the school community launched an initiative to construct a vegetable garden, orchards and seedbeds of condiment herbs in the school yard. This initiative was aimed at improving and diversifying the menu offered to the children, as well as enhancing the overall school environment.

To ensure an interdisciplinary approach, teachers from all subject areas were involved in contributing to the:

• Development of vegetable gardens and seedbeds of condiments to increase the variety and improve the lunches served at the school.

The school adopted an interdisciplinary approach to solve the problem. Math teachers and students developed graphs on consumption and values. Portuguese Language teachers drafted pertinent texts to describe how the water was being transported to the school. Science and Geography teachers focused on topics related to local relief, fountains, rivers, and pollution, among others. Art teachers produced drawings and maps about the way in which the water travelled from reservoirs to the schools.
• Monitor the wasting of food, by using different measurements and graphics. Evaluations and demonstrations were carried out daily for the pupils.
• Campaign for effective organic and non-organic garbage packaging aimed at reducing the number of pigeons around the school. The latter problem had been caused by the fact that foods were not being appropriately discarded.
• Utilization of tableware such as forks and knives to teach the children how to use these utensils.
• Modification of the lunchtime routine so that the pupils are encouraged to serve themselves and sample new foods. This promotes a healthy change in dietary habits, as well as a process of socialization whereby the pupils discuss what to eat and where to sit (rather than being required to sit in their designated classroom). By serving themselves, the students also create less waste in the form of unfinished food. Furthermore, this helps to significantly reduce the workload of assistants and school cooks.

General Observations

Overall, the great advantage of using the Earth Charter as a pedagogical tool is that it does not necessarily have to conform to a rigid structure. All of the content and subject areas of the Brazilian national curriculum can be approached through the four pillars and principles of the Earth Charter. Any discipline can utilize the principles to generate a more holistic and innovative way of understanding its respective field.

The integration of the Earth Charter into pedagogical methods and practice has promoted new learning dynamics among pupils. This has enabled students to acquire unique learning experiences through new subject areas such as ethics, environment, and solidarity. These new lessons address local issues, such as exclusion, race, religion and natural resources, and bear a direct relevance to everyday life. This has enabled the Institute to raise awareness of the importance of universal humane values and of the principles of sustainable development among students and staff.

Through the project, the participating schools have also been able to operate collaboratively as a network. This has enabled an increasing exchange of ideas between schools and communities, particularly now that group meetings and discussions are held every month. All of the resources used in the project activities were made readily available to the schools. The vast majority of activities also applied the rule of the Four R’s: Reuse, Reduce, Recycle and Rethink.

To develop concrete classroom activities, the pedagogical supervisors of the project and the trainees carried out research to find texts, songs, films, and books that could be related to the theme and principles of the Earth Charter. The projects always started by identifying the problems and themes to be explored, and then incorporating these into classroom activities and content. The ultimate result should always be concrete action.

Schools having participated in the “Young Friends of Nature” initiative have already begun to develop their own projects, such as:

• Creation of a family support centre
• Organic and non-organic vegetable gardens and orchards
• Herbariums
• Improvement of the school environment through the adoption of practices such as using tableware, diversifying the food menu and nutritional education
• Construction of parks
• Creation of a recipe book of Brazilian herbs and condiments
• Plantation of native forestry
• Creation of a book chronicling the history of the school’s conservationist efforts and the positive effects of this on the community.

Lessons learned

It is urgent and necessary for education to incorporate a diversity of learning methods, activities and subject areas within its curricular parameters. An emphasis should be placed on human rights to guarantee the same educational and personal achievement opportunities for all. In this project, the Earth Charter has served as an effective pedagogical tool and as a guide for future actions to be carried out by the participating schools.

According to José Francisco Pacheco from the Bridge School (Escola da Ponte) of Portugal:

…it is a serious mistake to think that a society of individual, participatory, and democratic individuals can be built, if the notion of schooling continues to be conceived as a mere cognitive dressage…it is urgent for us, as individuals, to directly engage with local communities, to question their convictions and, fraternally, to challenge the existing ones.

For this project, the implementation of the Earth Charter principles through an inter-disciplinary approach constituted an ideal and cost-effective approach. We think that the latter approach can be adopted by any educator, in any discipline, in any school, in any country, with relative ease. It is extremely accessible to students of any demographic setting, and in both formal and informal learning environments. The principles are easily understood and have the power to modify behaviours and make operational actions that promote sustainable development.

Plans are already underway to release a book, entitled Histories of Learning and Teaching, to feature best practice examples of the project. This will include articles and testimonials from participants and educators who generously contributed their time and efforts to the “Young Friends of Nature” project. The text will also highlight best practice examples of activities undertaken by the participating schools, so that other schools might learn from the great successes that we have had.

Overall, the project is a great testament to the user-friendly nature of the Earth Charter programme. It is our core belief that only when learning – based on universal humane values – becomes widespread across both formal and informal learning environments, will we have the chance to create a more sustainable form of development that will benefit the entire ‘earth community.’

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