

The FEE-project

The persuasive power of children towards energy consumption in the local community

Brussels Energy Agency, Belgium

Summary

The FEE-project is an educational project conducted by 9 regional energy advice centres, supported by the ALTENER programme in 8 European countries. It aims an educational approach in schools to obtain consciousness and results about Renewable Energy Sources (RES) and Rational Use of Energy (RUE). Children of 10 to 14 years old set up an interactive exhibition about RUE and RES, stimulating their awareness on energy issues. The project has a neighbourhood/regional bounding and an international approach.

End-user area	Target Audience	Technical
<input type="checkbox"/> New buildings	<input checked="" type="checkbox"/> Citizens	<input type="checkbox"/> Energy efficiency
<input type="checkbox"/> Refurbishment of buildings	<input checked="" type="checkbox"/> Households	<input type="checkbox"/> Heating
<input type="checkbox"/> Transport and mobility	<input type="checkbox"/> Property owners	<input type="checkbox"/> Cooling
<input type="checkbox"/> Financial instruments	<input checked="" type="checkbox"/> Schools and universities	<input type="checkbox"/> Appliances
<input type="checkbox"/> Industry	<input type="checkbox"/> Decision makers	<input type="checkbox"/> Lighting
<input type="checkbox"/> Legal initiatives (municipal regulations, directives, etc)	<input type="checkbox"/> Local and regional authorities	<input type="checkbox"/> CHP
<input type="checkbox"/> Planning issues	<input type="checkbox"/> Transport companies	<input type="checkbox"/> District Heating
<input type="checkbox"/> Sustainable communities	<input type="checkbox"/> Utilities	<input type="checkbox"/> Solar energy
<input checked="" type="checkbox"/> User behaviour	<input type="checkbox"/> ESCOs	<input type="checkbox"/> Biomass
<input checked="" type="checkbox"/> Education	<input type="checkbox"/> Architects and engineers	<input type="checkbox"/> Wind
<input type="checkbox"/> Other	<input type="checkbox"/> Financial institutions	<input type="checkbox"/> Geothermal
	<input type="checkbox"/> Other	<input type="checkbox"/> Hydro power
		<input type="checkbox"/> Other

Context

The title of the project is: “**Force for energy by children**” or “**Persuasive power of children towards energy consumption in the local community**”. Although Energy Agencies have to work around general energy awareness, they can work as initiators of energy awareness projects in the field of education. The fee-project is as such initiated by 8 regional energy-agencies. This educative approach in schools was aimed at children between 10 and 14 years old, partly in primary, partly in secondary schools. Energy was their main school theme for a whole year. In order to motivate and communicate with other children, their parents and the local community the schools involved in the fee-project set up an interactive exhibition around RUE and RES. Making the link between the school project and the local community is specific for this project. By involving kids, you reach a wide public (family, friends...). Working with different countries and organizations, implied common methods with different approaches. The project is supported by the Altener program (DG-Tren) and the project ran from 01/01/2002 till 31/12/2003.

Objectives

The aim of the project is to raise energy/environmental awareness in the local community. It should bring an attitude change - behaviour change in the way one uses energy. It should improve the Rational Use of Energy and enhance a better understanding of the use of Renewable Supply.

Specifically the project aims first at school pupils, and second at the local community through:

- ➔ Raising the awareness of young people about RUE and RES in schools;
- ➔ Changing the attitudes in relation to their energy consumption.
- ➔ Setting up a communication strategy;

Process

Before starting the school activities we agreed on a common project framework. We used the following principles:

- ❑ Getting through the project step by step by making precise educative and communication plans;
- ❑ Putting the courses in the local energy reality by reporting about the results of an enquiry of the local energy situation;
- ❑ Real commitment of the players by making formal agreements with the key participants, after choosing the schools;
- ❑ Preparing tools ready to use in the school such as:
 - Exercise books and a set of documentation for both teachers and pupils: to explain the theoretical basis and realize exercises;
 - Energy newsletters (and website): to inform the community and especially the parents about the project development;
 - A guide of possible experiences and other activities concerning RUE and RES
 - A website (intranet), "Rexnet" for international school communication;

Educational development

- The role of the Agencies was to support the schools to obtain the project targets, with helping them concerning the content and giving them some ideas for interesting exercises. For some schools this was a first experience with this kind of project work and this kind of partnership.

- The methodology is based on project-based learning. Children in project-based learning are analyzing the situating, searching for answers, and solutions. The school is bringing in the reality of society. This active attitude works very well to motivate children, even those who are not the best of the class.

- We also used "commitment pedagogy": people who commit themselves to saving energy are more likely to save energy.

- Step by step pedagogy was also a notion used: if the child succeeds with a first simple act, he is able to succeed with the next one.

- We based our action also on the notion "valorize what's been done". The whole work was also done in function of the so-called « exhibition of energy work» at the end of the year.

- Every country laid the emphasis on a different aspect of the project framework.

- ❑ In France on training teachers, provide tools and methodology for teachers;
- ❑ In Belgium a much closer interaction- games;
- ❑ In Greece and Portugal: single continuous point of contact;
- ❑ In Italy a more laboratory experimental approach and school subject bases;
- ❑ The UK worked within current curriculum base;
- ❑ Sweden worked in the interactive development.

The learning plan of the school project is subdivided in 3 phases:

- | |
|--|
| <ol style="list-style-type: none">1. Activating, introduction in the energy theme2. Working out, visits, exercises; |
|--|

3. Exposing, visualize the work done.

Contact with the Community

The community involvement starts with the information on what is going on, through the distribution of a regular publication of a newsletter for the area. The role of the regional press was also important to reinforce the message.

The link between schools and local community is made through:

- ❑ Home audits, done by children at their family house;
- ❑ Involvement of the community in the development of the school project, follow up by parents committees.
- ❑ The exhibition as an event, open for the neighborhood;
- ❑ The project wants to give a start to make an energy plan for the area.

Dissemination

- ❑ The project targets concerning dissemination are seen on two levels. The first level is the permanent emphasis on communication, with the community, but also with the institutions and press.
- ❑ A second level is the evaluation process and the basis for future development in the energy awareness strategy for the area, in collaboration with the energy agencies.
- ❑ Although planned on a longer term, the project foresaw a first attempt to develop awareness work in the local community. Anyhow, it ensures that the agencies have an anchor in the community. By this way action plans for better energy consumption and plans for a better energy-consuming school were foreseen (a first attempt).
- ❑ In order to evaluate the learning process, the “self audits” by children should give more precise elements about the energy attitude.
- ❑ Our partnership organized a common exhibition in Brussels, to show what was done. A video product of the project will also be realized for dissemination.

Financial resources and partners

2 250 K€ for 24 months with 8 partners coming from Altener programm (2001) and resources from Regional and local authorities.

The following 8 energy agencies in 7 different countries that initiated the project:

- ❑ Belgium: **ABEA** (Agence Bruxelloise de l'Énergie/Brussels Energie Agentschap) (Be)
- ❑ Italy: **A.R.E.-Liguria S.p.A.** (Energy Agency of Liguria Region) (It)
- ❑ France: **PACA-Region** (Région Provence-Alpes-CTMte d'Azur) (Fr)
- ❑ UK: **ELEEAC** (East London Energy Efficiency Advice Centre) (UK)
- ❑ Greece: **REAC** (Regional Energy Agency of Crete) (Gr)
- ❑ Sweden: **GDE-NET** (Gävleborg/Dalarna Energy Network) (Se)
- ❑ Italy: **EALP**(Energy Agency of Livorno Province) (It)
- ❑ Portugal: **AREALIMA** (Agencia Regional de Energia e Ambiente do Vale do Lima) (Pt)

Further we mention the participation of:

- ❑ 5000 children
- ❑ 100 schools
- ❑ 6000 parents
- ❑ A lot of local partners

Results

One of the results of the project is that the pupils have learned about energy issues. They experienced how energy influences our daily lives. They observed their own energy consumption and searched a way to lower it and look for alternatives. They visualized what they learned, and communicated with their peers, families and neighbors. The pupils take their responsibility (refreshing, lighting) and call teachers to order.

The school has gained a lot of experience by working the whole year around one big item, the energy item. They worked project-based from theory to practical examples and visits. They valorized what they did in an energy event. Even the non-motivated pupils learned very well, school could be interesting, indeed.

Those families were also confronted by the fact that their children analyzed the family energy consumption. The children made it clear that there was a lot to enhance and that they know how to do it. Anyhow, a special newsletter and the energy event at the school explained and put emphasis on the situation.

Parents confirm that pupils save energy at home and urge their parents to do the same.

The involvement of the community can make a big difference. Because all children and parents were involved. Sometimes it became a topic of talk of the town.

The residents in the chosen area could see it as a first step to a better consciousness of RUE and RES. It could bring more dynamism between schools and population. It could start activities of citizens around Local agenda 21 or sustain the energy saving programs (and info centers).

Even though the project succeeded in his educational targets, the way to improve the energy consumption in the community is still a long way to go. As said, the project has a lot of potential.

It's sure that the energy agencies have introduced and helped the schools to realize the project. The energy agencies have gained a lot of experience and tools that can be used for a lot of other educational activities. Those capacities are also the result of the collaboration between the different agencies by the exchange of best ideas. Anyhow, the collaboration between the regional advice centers in the field on education has only started.

We may say that the project was a big success. Many times our energy agencies were asked to continue their educational activities and to broaden to other schools. The project got also attention of a few national educational boards (especially Italy and Greece) or environmental institutions (Green apple award, UK). The experience is renewed in the framework of the « Genova European Capital of Culture ». A large assessment of environmental education in PACA (France) will be organized by university and education researchers through a participative methodology on the basis of the Fee-project experience.

Lessons learned and repeatability

Educational work based on project-based learning is working well. Even Kids from back laid neighborhoods like it. But most important it's about future knowledge and behavior that starts in childhood (and through schools). The longer-term benefits are still unclear, but this is a general pedagogical question.

The involvements of the schools are intensive and the costs are high. The fee-project concentrated a lot of means in a few schools. It could be difficult to disseminate the project as such.

As said, families are real key players of energy consumption and children can persuade families to be aware of the importance to lower consumption and of the way to produce them alternatively. Families can learn of measures they can take, investment they can make, but the influence of a good knowledge of children on this field towards their families still has to be proven.

The local community is an important target group for awareness messages and schools can be carrier for these messages, but it has his limits. Specific project are to be made for specific target groups, with specific tools. Why not develop specific tools that can be put forward in schools and at the same time in the local community?

Communication between children can stimulate their knowledge and explore the similarities and differences, also between children of different countries. It is worthwhile, but difficult. In that way the Internet is very useful, but there is still a lot to develop in order to use it in an easy way.

Energy agencies have a potential to implement energy awareness projects by developing partnerships with local players. The technical knowledge of the agencies is important for the development of the right content, the right educational tools and the right guidance of the educational process. But we may not underestimate the knowledge of specialized educators in order to translate the content to the educational tools. A specific training for energy-animators (non-technical) could be useful.

The experience of the Fee-project has to be transformed into a permanent regional educational project supported by the (regional-communal-national) government.

Contact for more information:

Project Web Site: www.curbain.be/fee
Organisation / Agency: ABEA (Brussels Energy Agency)
Main contact: Eddy Deruwe
Address: Boulevard Anspach 59 at BE-1000 Brussels- Belgium
Tel: 0032(0)22194060
Fax: 0032(0)22193591
E-mail: eddy.deruwe@curbain.be
Web Site: www.curbain.be

Printed reports or other literature available:
Title: Intermediate report of the FEE-project