

ENVIRONMENTAL EDUCATION CENTRES IN GREECE

Our running projects about the sustainable management of fresh water

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RESUME

L'Éducation à l'Environnement en Grèce est devenue une réalité en 1990. Aujourd'hui, il existe 17 Centres de l'Éducation à l'Environnement relevant du Ministère de l'Éducation Nationale ; 15 nouveaux centres devraient être créés dans les prochaines années.

Le Centre de Naoussa, une ville de Macédoine, réalise trois programmes d'éducation (durée : un à trois jours) à l'environnement avec pour objectifs de former des citoyens à devenir conscients des relations de l'homme et la biosphère, de les sensibiliser aussi à la gestion durable des ressources en eau sur les plans local, régional et planétaire, de faciliter leur participation à la recherche de solutions et aux décisions locales ou nationales. La durée d'un programme varie d'un à trois jours. Ce programme s'effectue sur les sites de la rivière Arapitsa et de la montagne Vermio.

Ce réseau des Centres d'Éducation à l'Environnement de la Grèce coordonnent aussi des activités communes, facilitent les rencontres élèves/enseignants, produisent des matériels éducatifs et organisent des séminaires et tables rondes.

SUMMARY

The Environmental Education in Greece has officially enacted at 1990. Today, 17 Environmental Education Centres are operational under the auspices of the Minister of Education; 15 news centers will be created in the coming years.

The Centre of Naoussa, a city of Macedonia, implements three environment education programs (duration : one to three days) which the targets to train citizens to become conscious of the relations between them and the biosphere and to sensitize them to the sustainable development of water resources at local, regional and planetary levels, to facilitate their participation in solutions research and local or national decisions. This training is held on the Arapitsa's riversides and Vermio Mountain.

This Environmental Education Centres Network of Greece co-ordinates also common activities, facilitate meetings between pupils and teachers, product educational materials and organize seminars and round tables.

KEY WORDS

Adults, citizen, communication, sustainable management, fresh water, partnership, mobilization, interdisciplinary, network, co-operation.

MOTS-CLÈS

Adultes, citoyen, communication, gestion durable, eau douce, partenariat, mobilisation, interdisciplinarité réseau, coopération.

INTRODUCTION

The Environmental Education in Greece has enacted at 1990 and from then composes part of the school schedule.

The students and the teachers participate in a voluntary basis and have the choice to decide on their subjects freely in view of the local environmental problems.

Water is a very popular subject for our students, as it forms a part of their immediate surroundings because it shapes the ground (lakes, river, see) and because it consists an element of day-to-day life. The most important of all is the noticed water shortage in many regions of our country especially in summer.

The institution of Centres for some time shown a deep interest in promoting Environmental education as can be observed from the following:

- ✓The international conference on the environment and development (Rio Agenda 21) in 1992.

- ✓The resolution by the Ministers of Education of the European Union countries.

- ✓The 5th Community Action Programmed for the environment and sustainable Development.

As a result of all these factors and also recognizing the need for the establishment of infrastructure and human resources which would support environmental education (E.E) in our country, the Ministry of Education decided to establish the centres for environmental education.

In our country are in operation 17 Environmental centres and the Ministry of education judging from the effectiveness of their running projects decided to promote and expand the institution so 15 new environmental education centers have planned to in operation.

I. DOMAINS OF THE ENVIRONMENTAL EDUCATION CENTRE'S ACTIVITIES

- ✓Education projects for preliminary and secondary high schools,

- ✓Educational seminars for teachers, education's members, students, citizens,

- ✓Development of the local, national and international cooperation with the view of protecting the environment and of boosting the substantial development,

- ✓Production of educational materials,

- ✓Support of environmental education programmes and development of thematic schools' network who are occupied with a common subject,

in the environmental education centres students materialize programmes of one till four days.

Every centre materializes at least one project which concern the near-by river, the riverbeds, lakes, healing source, wetlands animal species in extinction and human activities.

These programmes aim at the sensibilisation of young people in environmental issues, the questioning for the predatory exploitation of the water and the pollution of water supplies and the research into the sustainable solutions.

Many of our Environmental Centres co ordinate or participate in a network which deal with the water. The environmental education networks, which are co-ordinate by the Environmental Education Centres and regard the water, are national networks.

And are:

- The river
- The sea
- The lakes
- The riverbeds
- The golden-green leaf

During the network's running, special education seminars are organised, educational materials are produced, there is communication among the participants via e-mail, students' meetings and common activities and all these for the environment sake.

II. OUR ENVIRONMENTAL EDUCATION CENTRE IN NAOUSA

Our environmental education centre was founded in 1999 in Naoussa a 25000 resident's town 90 kilometres west of Thessalonica. A picturesque area with planted all over mountains and lavish water springs.

The accommodation of the centre is in the position to accommodate 50 persons in 6-beds rooms. Food is provided at the restaurant of the National youth foundation hostel. Other facilities: a multi- usage room, library, well -organized playground, and recreation room.

III. THE PERSONNEL OF THE CENTRE

You can request more information about the projects and generally about the activities carried out at the CEE in Naoussa from the teachers working at the centre.

Our pedagogical team is composed of:

- Vlahou Fani, biologist directress of the centre
- Meskos George, teacher of physic vice director
- Skenderidou Nopi, teacher of maths
- Natsios Dimitris, Teacher of maths
- Kalaitsidou Katerina, primary school teacher
- Stylianou Liana, primary school teacher
- Loukidou Maria, primary school teacher.

IV. OUR PROJECTS

Our centre carries out 3 projects in which we aim at an alternative pedagogical approach to the environment and education, through creative work, group work, the exploitation and development of personal skills, active participation in tasks and an appreciation of life experiences.

The running projects deal with our river Arapitsa and our mountain Vermio.

These programmes last one-day and four-days

Statistics of the E.E.C. projects for the years 1999-2003:

◆ We have received students from 51 primary schools, 104 secondary schools and 28 high schools

◆ The students were 2277 boys and 2821 girls.

◆The accompanied teachers were 195 men and 259 women. The programs we have carried out were 84 about our river, 62 about our mountain Vermio and 35 "4-days programs" about our river.

V. OTHER ACTIVITIES

We have organised more than 20 seminars and meetings with the participation of more than 1500 teachers. We organized activities in cooperation with the prefecture of Imathia, the Municipality of Naousa, Aristotle university of Thessalonica, Cultural and Environmental Institutions, schools and citizens. We have established cooperation with UNESCO, Universities, other centres, schools and other organizations in Austria, Finland, Sweden, Spain, and Portugal.

We have also organized activities for the day of the river, the day with out car, the world day for the environment.

One of the E.E.C. basic activities is the in service training of teachers and the international cooperation so we have organized on 8 to 14 June 2003 a congress which has taken place in Naousa with theme: "Sharing our experiences for a shared future" and the participants were teacher in service from Balkan countries.

This congress aimed to establish cooperation between all Balkan countries because it is common knowledge that ecological problems have no boundaries.

A. Activities, projects about the water

The environmental education Centre in Naousa takes part in a national network under the name "The River". For this reason since its opening it has organized three days seminars for teachers in service, in order to provide an introductory training on sustainable management of the fresh water for experienced teachers who want to improve or supplement their knowledge and methodology. We usually run in the form of workshops so that the trainees are actively involved in their learning. We also enforce them to use the interdisciplinary approach and as a methodological strategy project. Only in this way they will help their students to find out in a spontaneous way all about water and rivers.

Furthermore in the context of the same network we have coordinate the last three years ten local schools which participate in the day of the river. More specifically the first Sunday of April the participated schools separated in small groups, walked along the river and put down all its morphological elements, the bio-indicators, chemicals parameters and all human activities.

All these elements were gathered and the students form a map that indicates the clearness of our river. In every region all over the country the participated to the network schools have done the same thing and the outcome of their work constituted the basis of designing a map that includes all country's rivers and shows the clarity of the rivers.

B. Our project

Theme: Arapitsa our river

◆A one-day project carried out inside and outside the center

C. Philosophy

◆Water is a liquid field of knowledge begins its adventure from very early on at the primary school and continues until the end of the lyceum (highest level of secondary school).

◆Ecological awareness (sustainable management, pollution, ecosystem scarcity of water).

D. Methodology

- ◆ Problem presentation and solving

E. Objectives

- ◆ The way Rivers are born
- ◆ The ecosystem near, inside and round the river
- ◆ Realize the importance of each creature in the ecosystem (Game)
- ◆ Calculating chemical parameters of the water in relation with the bioindicators and discover the water value.
- ◆ Evaluate the human activities near and in the river, find problems and suggest solutions
- ◆ Pinpoint problems related to the scarcity of drinking water reserves and the qualitative downgrading of water.
- ◆ Experience an alternative way of learning

F. Arapitsa our river

→ Arapitsa is a small but very beautiful river with rare characteristics. It is very important for our town life. The springs of the river are nearby to our center.

1. First phase

→ The programme begins at 9.00

→ After a brief acquaintance, the co coordinator encourages the students to express their points of view about the concept of environment.

Then we watch an 8 minutes video, which presents the water circle and how rivers are born.

Then Students play a game in which they try to recognize sounds referred to water.

2. Second phase

→ After a few minutes interval, students and coordinators go to the river springs to begin the field activities. Our environmental path is at the area of St. Nicolas forest.

Many activities take place there.

→ Plants recognition

→ Discover small animals and insects.

→ With the use of a key sheet they learn the way to find out the quality of the water.

→ They estimate the water's temperature using their senses (they feel the water) and then using a thermometer

→ Another very important activity is to adopt a tree near the river to give it a name and to try to estimate its age and tell stories and myths about it.

3. Third phase

Back to the center again. Students in groups observe the microorganisms with the help of the stereoscopes, make posters, play drama and present their work. We also discuss the water shortage problems find out the main causes, analyze them and recommend sustainable solutions.

We should point out that project which have to do with students from primary schools is shorter with many games.

The main object of the project is students' and society's mobilization and sensitization in order to protect the most important of the natural resource -water- for life and sustainable development.

Our motto is "Acting in an optimistic way is better than thinking gloomy".

CONCLUSION

To conclude, we believe that Environmental Education as a process could lead to an Environmental change. This change by turn can be instrumental in the amelioration, between citizens and environment, relation. It is necessary to clarify that we don't regard environmental education as a 'tool' for the behavior modification to a determinate direction.

The principles that govern our activities are based on the Belgrade Chart and the declaration of Timblisi. And these are.

- The study of the environment as a whole.
- Interdisciplinary approach of the environment
- Constant and lifelong educational process, which begins from infancy.
- Supply students and adults with the essential help so as they find out the real causes and the consequences of the Environmental problems.

To succeed in our goals we use a variation of educational methods and approaches like as Project method, action research, problem solving, case study, brainstorming, values clarification, concept mapping. We looking forward to developing a dialog between all the participants based on democratic ideals and the critical thinking cultivation.

The age we live in is full in ecological crisis. The environmental down granting undermines the capability of the nature to support the processes that conserve life. (Water contamination). For this reasons our constant solicitude is the training of the in-service teachers in order to acquire the proper knowledge and infrastructure. It is essential to have educators with the proper cognitive background in order to have efficient environmental education. For this we suggest the framework of a communication network via Internet so as the participated teachers exchange their experiences and their aspects. Particularly we suggest the establishment of a thematic network in connection with the water scarcity and quality and its sustainable management. A colloquy with in- service teachers from the Mediterranean countries it would be very constructive and useful for all.