



I love my environment, I protect it

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Abstract

This study summarizes the visual, narrative and applied activities performed in 16 months for the purpose of raising environmental awareness through the use of multiple education paradigms and media. We performed case by case study of applied activities, obtained and shared knowledge about the environment and emphasized the importance of environmental education. We chose the public, independent and private preschool institutions in urban and central districts in Canakkale, Turkey. University students in COMU CSBMYO child development department performed the field studies in the context of the course called 'Children and Environmental Education'.

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1. Introduction

As a result of the intensification and expansion of industrialism, environmental problems have become a threat to the lives of all the organisms inhabiting the earth.

Environmental problems have a global character in the sense that they affect every species in varying degrees. For this reason protecting the environment and tackling with the environmental problems is the responsibility of humanity rather than a limited number of environmentalists. Similarly, environmental education is not limited to the scope of environmentalism.

Historically, the hunter gatherer societies inferred 'ecological knowledge' directly from their life sustaining activities. With the advent of industrialism and associated growth of urban centers, people lost access to this 'ecological knowledge' together with the soil, the only remaining source for such knowledge. Since then, environmental degradation haunts humanity. Moreover alienation from the environment has brought about physical distancing of individuals (Louv, 2010).

Attempts to combat environmental degradation due to industrialization could only start in the 70's. People recognized environmental education as the most effective tool as they came to understand that the problem is human related. The treatment of environmental education as a distinct chapter in general education gained currency, likewise, in the 70's.

Notably, the Intergovernmental Conference on Environmental Education held in Tbilisi in 1977, defined education as a subject and application of an interdisciplinary approach that encourages the participation of each and every individual and society in the solution of environmental problems and specified the principles, aims and implementation of environmental education (Ozoglu, 1933).

Generally, we see, today, that the context of environmental education has expanded to include the development of all necessary conditions and methods for environmental sustainability. Environmental education can also contribute to the establishment of sustainable living culture.

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The first step in struggling a culture that degrades the environment is to take measures against anxiety (Palmer, 2010). Naturally, though, the principles that guide environmental education varies with the choice of the education paradigm.

Environmental education should not be limited to a type of education that is put to practice in a limited period in life, it should be a part of the lifelong learning process.

Environmental education should invite participation of childruth on the basis of their abilities and it should promote on site identification and solution of problems.

The environmental education should be designed to be flexible so as to be able to adapt changing circumstances. It is thought that a guiding principle for the instructor is that the consideration of the needs and interests of the students would facilitate acquisition of knowledge.

The basic functions of environmental education can be listed in three categories as follows, 1) To raise awareness about environmental problems, 2) to develop capacity to act responsibly about environmental matters, 3) to orient the students towards responsible behavior (Klautke and Kohler, 1991). The quality that is expected to develop, then, are creativity, capacity to conduct research and methological inquiry, cautiousness and skepticism (Zimmermann and Brunner, 2005).

Primarily, the link between theoretical knowledge and practical and individual needs should be recognized. We observed in our projects that we can get more effective results by employing active learning schemes such as, practical assignments, on-site research, observation, group study and brainstorming.

On the other hand, we understand that environmental education is not only a way to protect environment and solve related problems, but also a necessity to evolve into a sustainable society (De Haan ve Harenberg, 1999: Özdemir, 2007).

Thus, we should consider environmental education as a course all by itself, rather than being a part or subject of general education, in which skills necessary for living in harmony with the environment is learned.

However, courses or programs that are aimed to train teachers in the field of environmental education are not provided in the educational science departments in our country, yet.

In the present situation, we invite the faculty who teaches the environmental education classes in the current institutions to go beyond the demands of the curriculum and perform field studies with the teacher candidates and shift their teaching perspective to emphasize active participation and taking responsibility.

Teacher candidates going through such an education would be able to give a similarly applied and long-lasting set of environmental skills to their own students. For us, the measure of success in environmental education is the adoption of skills and awareness obtained during the environmental education as a lifelong guideline. Just as they strive to be ethical, eat healthy, and stay healthy, we think they should equally strive to be an environmentally conscious individual living in tomorrow's society.

2. Problem

To examine the state and context of environmental education in the current education system in the light of field research.

2.1. Objective

To raise environmental awareness through the use of multiple education paradigms and media, to perform case by case study of applied activities, to obtain and share knowledge about the environment and finally, to emphasize the importance of environmental education.

2.2. Method

This research is conducted together with 80 students from COMU CSBMYO department of child development, on 256 children between the ages of 4 and 5, at 20 institutions of preschool education.

2.3. Data gathering tools

The interviews are performed with several techniques namely, focal group interview, narration and applied tasks. During the 3 months of research, teacher candidates gathered data related to the context of their project assignment. Focal group interviews are performed in a Q&A manner. The candidates showed images selected in accordance with the age group and discussed the images with the children to reveal how and in what level they understand the concepts.

Similarly, the candidate teachers discussed the content of the projects with the teachers of the hosting preschool institution and family members who were willing to contribute.

2.4. Limitations

This study is performed;

- in 20 preschool education institutions
- with 256 students,
- in a 16 months period,
- with a limited budget,
- in the context of the Child and Environment course only.

3. Projects

We asked teacher candidates in the context of the environmental education class, to design projects under the umbrella name: 'I love my environment, I protect it'. The candidates are grouped and assigned these projects, thereafter.

3.1. Project titles

1-Noise Pollution

2-Air Pollution

3- The Effects of industrialization on human health.

4- Marine Pollution

5- Projects to restore and improve the environment

6- Harmful Effects of Sea Vehicles

7- Soil Pollution

8- The environmental damage inflicted by urbanization.

9- Hazardous wastes

10- Global Environmentalist movements

11- Careless consumption of GMO products.

12- Radiation and its effects

- 13- Children and drinking water
- 14- Kid parks
- 15- Globalization of environmental problems- Deforestation of rain forests.
- 16- Forest fires and their consequences
- 17- Urban poverty and the environment.
- 18- Waste and recycling
- 19- The negative effects of population growth on the environment.
- 20- Environment and museums
- 21- Unintentional damage caused by the society
- 22- Extinction of animal species.

3.2. *Process*

The projects that are listed above are implemented according to the plan described as follows:

LEVEL 1: Perform literature survey and gather relevant information about the project.

LEVEL 2: Visit the related institutions and people and obtain legal permissions.

LEVEL 3: Develop examples and methods to reduce the project to the cognitive level of children. Obtain necessary tools and materials.

LEVEL 4: Work in teams where each project team worked with two student groups, 3 months each.

LEVEL 5: Perform evaluation of projects from the view point of candidate teachers, students and families.

3.3. *Example Project*

Here ,we present an example project.

Name of the project: Noise Pollution

- In Level 1, we conducted literature survey about noise pollution. As a result, we gathered information about sound, noise, decibel, types of noise, sources of noise, maximum permissible noise levels, measures against noise pollution, evaluation of ambient noise and regulations about noise management.
- In Level 2, we made interviews with officials from the Canakkale Governorship and the Ministry of Environmental and Urban Planning of Turkey, Center for Family and Society, a subunit of the Ministry of Health is visited.
- In Level 3, we organized visual elements and numerical data is in slides and we made an implementation plan for the application of project in early childhood education institutions is planned.
- In Level 4
 - We informed the children with a slide show
 - We went out for a 'noise hunt'.
 - We recorded sounds and listened the recordings in the classroom
 - We asked the children to identify the sounds
 - We asked the children to make sounds with we had provided them
 - We introduced the sound measurement device to the children
 - We performed an experiment about the propagation of sound waves in air.

- We asked them to talk while their hands are near their mouth.
- We discussed the air pressure and vibrations felt by the hand.
- We asked them to make a drawing of the first thing that comes to their mind when noise is mentioned
- In Level 5, we made an evaluation of the project.

4. Findings and Evaluation

The findings and the results of this evaluation is as follows:

Table 1. Perspectives of Family

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- The child has started warning us when we the TV volume is high.
 - Tells us who shouldn't sound the horn in the car.
 - Warns the elder sister not to sing out loud at home.
- Note: No significant changes are observed in 2 families
- The child has started warning us when we the TV volume is high.
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Table 2. Perspectives of Teacher

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- In the classroom children are talking quietly with their each other and they talk in turns.
 - Teachers stated that they enjoyed the process and they have learned from the project.
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Table 3. Perspectives of Teacher Candidates

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- We are more sensitive to sound.
 - We started warning people at the places that we go.
 - We have ceased to listen to loud music.
 - We have understood the importance of this issue and its effects on human health.
 - We have come to understand that we were a source of noise pollution too, before we had undertaken the project assignment.
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4.1. Evaluation Of Children

Children were very excited during the activities and they joyfully wanted to take part in them. Effective participation is achieved. Initially, we understood that the children didn't have a clear idea about the definition of sound and noise. After the explanations, the children learned how to identify the sounds as loud and quiet. Those who used to get close to the friends ear and shout while talking apologized from them.

The following are sample questions that we asked to the children and typical answers that we got in return:

Table 4. Evaluation of Children

What is sound?	- Cat meowing - Applause - Music - Aeroplane sound
What is noise?	-I don't know -I have never heard of such a thing

	- Loud noise
What makes noise?	-Cars -Animals -Toys -Humans
What can be do to reduce the voice?	-We should not speak loudly in the classroom. -We should not shout while playing - Drivers should not honk. -Cars should not go fast
What does the following sound make you feel?(mixed loud noise)	-I am scared -It is too loud -I am irritated -It is fun

5. Conclusion

As the example project that I described above, we believe that similar projects can be conducted in a similar way to create **lifelong** environmental awareness through education.

Below are examples of comments by the teacher candidates about their project assignments in the context of 'I love my environment, I protect it'.

- "I approach events in a more inquisitive and skeptic fashion thanks to the environmental education class."
- "I will be able to teach about environmental problems more effectively."
- "Indeed, environmental education should start in childhood."
- "I have learned how to deliver environmental education in the early childhood period."

According to the Children disease study of World Commission on Environment and Development, 1/3 of diseases that the children face before reaching 18 years of age is due to negative environmental conditions and thus curable. (World Commission of Environment and Development ,1987)

Even, this study alone, shows us how vital, environmental education is for the human health. It should be remembered that the returns from the nature is reciprocal to how we treat it. The comments of teachers at the hosting institution, teacher candidates and the positive changes in children and their families supported our hypothesis. We would like to note that, creation of platforms and opportunities to share knowledge about all the other practices that are performed all around the world would enrich the content of the environmental class and would help create a more livable world for both us and our children.

Our aim for the years 2013 and 2014, together with the teacher candidates, is to expand the range of the application of this project in Centrum and districts of Canakkale in collaboration with Ministry of Education and Ministry of Environmental and Urban Planning.

6. Pictures of Children



Figure 1. "The boy shouted at the girl. Because of she got sick, her mother took her to the doctor."



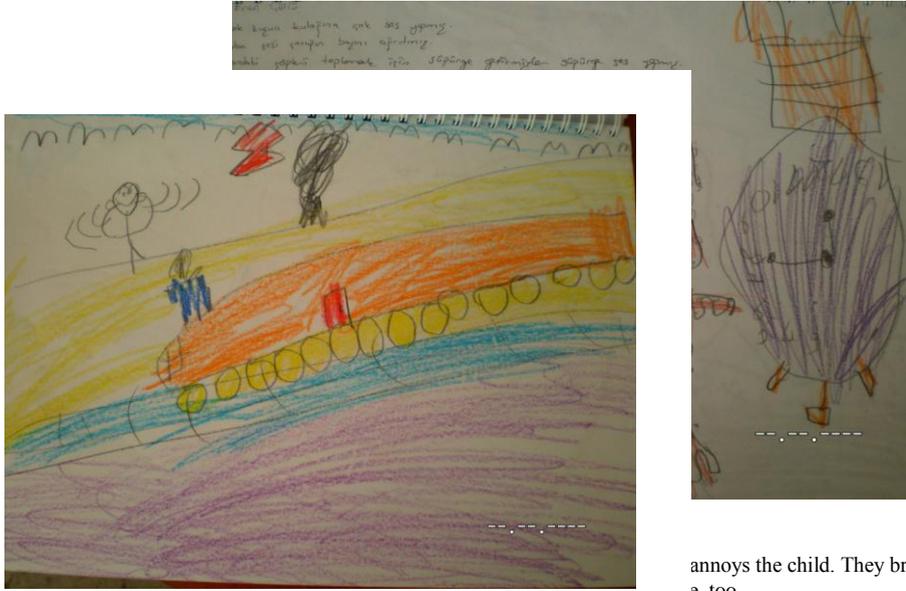
Figure 2. "sounds are coming to the child. The child hear the sound."



Figure 3. "The child is playing. The other child starts to play the drum. Then, children are laughing loudly. Friends are warned the child because he is making noise. Then they decided to stop being friends with him"



Figure 4. "The house is being destroyed. My dad is annoyed the noise and my dad is scared."



annoys the child. They bring the groom to clean the trash. e, too.

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