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Kemaliye (Erzincan) Ecology Based Nature Education Project In Participants' Eyes

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Abstract

The goal of Kemaliye (Erzincan) Ecology-Based Nature Education Project is to give education people whose job is or is going to be training broad masses of the society about the observing components of nature with their senses, exploring living and unliving entities in their habitats and reflecting their theoretical knowledge on nature to their practices. The participations of the research were, research assistants of universities, teachers, Ph.D. and M.A. students, under graduate students, those working at related institutions is considered appropriate. Participants were attend the research for 9 days during the project program as two different groups (N:60). 19 ecology based nature education activities were involved in project. Three open ended questions were asked to participants to get their suggestion and criticism about the changes in their lives because of the project and how they will spread their gained knowledge and experience. Data obtained from their answers are analyzed by using qualitative research method with inductive analysis. At the end of the project, themes which were related to the sharing the knowledge and increasing awareness (f :16) and reflecting professional environment and life (f:29) are the result of the study. It is thought that both education period and participants' experience are beneficial to gain a different point of view and contributions to other science education researches in this Ecology-Based Nature Education Project which supported by TUBITAK.

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1. Introduction

Ecological niche of each organism as a plant and an animal in natural environment; occurrence of the interactions among non-living and living components are the facts that neither parents nor teachers can not comprehend or get their students to comprehend (Atasoy, 2006).

However, nature is an area that is freedom for children, to enrich their imagination, isolated from adults' world and peaceful (Louv, 2010). Therefore, it is crucial to carry out outdoor education to natural environments where the children obtain experiences of concrete observation. Whereas, most of the teachers prefer the evaluations with oral and written exams in the concept of the conventional questions such as ' what is the environment? What is the environmental problem? What is the water pollution?' (Alim, 2006). Thus, the knowledge that gains in the childhood keep rote information and this is not sufficient to build up environmentally responsible persons.

Studies on evaluation of sufficiency of the teachers about activities of nature-natural sciences and outdoor education are pointed out the insufficiency of kindergarten teachers, as the first level of the educational system, in improving the original material for nature education. They also discussed the main reason for the insufficiency and emphasized that undergraduate education doesn't satisfy requirements for the activities, and lack of the knowledge and skills to improve themselves (Ayvaci, Devecioglu and Yigit, 2002; Demiriz and Ulutas 2000). However, it is reported that they demand to learn how to teach contents of the main topics in science and abstract concepts such as space (Vural and Hamurcu, 2008). Yardımcı (2009) has been asserted to teach in short term the issues that are hard to teach such as diversity and integrity in the nature and ecological processes due to outdoor education for primary school students.

Most of the people think outdoor education is the same meanings with traditional education. Whereas, it includes planned and scheduled teaching with or without rules. Education in natural environment provides:

- ✓ Understanding of the natural environment with direct observations (Stevenson, 2007),
- ✓ Opportunity of applying the theoretical information in the field and thus, discovering the real life (Ballantyne and Uzzell, 1994),
- ✓ Understanding reciprocal relationship between living and nonliving components of the nature
- ✓ Skill of observation of the environmental problems and awareness on impacts of the problems on wild life, habitats and human (Ballantyne et al., 2001a; b).

Ozner (2004) defines the nature education as 'learning language of the nature' and specifies the influence of even short-term outdoor education activities on the individuals with the radical changes in scopes of their understanding on universe, life and events. Well planned outdoor activities will help students to understand better their environment as well as obtaining positive attitudes and values for it. Many researchers pointed out the positive effects of the nature education on individuals, even though being short time period, such as allowing to obtain information natural processes, increasing susceptibility, making them more sensitive and informed, helping them to be independent, creative and critical thinking (Demirsoy, 2004; Ozner, 2004; Palmberg and Kuru, 2001; Phenice and Griffore, 2003; Thoe and Lin, 2006; Yanik, 2006; Ozner, 2007; Yardımcı, 2009).

Nature education program based on ecology is preferred in the scope of the project due to properties of the individuals who belong to ecological philosophy. These individuals take into account needs and require of the nature, and integrate themselves into the nature rather than their opportunistic approaches related to the environment. They also have a respect to the right of life with an empathic perspective related to each organism and nonliving components of the ecosystem (Atasoy, 2006; Palmberg and Kuru, 2001).

Thus, the project aims the people to gain a perspective, that nature has more value than opportunistic approaches of the human population, for the teachers of posterities. This perspective will contribute future human populations 'to be aware, responsible, well informed, more experienced, frugal and participating individuals related to the nature'

1.1 Content and process of the Kemaliye (Erzincan) Ecology Based Nature Education Project Supported by TUBİTAK

Ecology based Nature Education Project around Kemaliye (Erzincan) was conducted by TUBITAK-The Scientific And Technological Research Council of Turkey on research asistants, master and phd. students, undergraduates and teachers from different disciplines on the date of 10th-28th June 2014. Goal of the project is to give education people whose job is or is going to be training broad masses of the society about 1. Observing nature with senses, 2. Discovering living and nonliving things in their own environments, 3. The relationship between nature and theoretical knowledge and many other components to their practices.

Erzincan province of Kemaliye district is the Middle Anatolia region. Kemaliye (Erzincan) and its vicinity contain valuable opportunities and possibilities with habitat richness, diversity of flora and fauna, geological features and cultural texture. It is also located in between two canyons. In the aspect of features it offers broad opportunities for observation, theoretical and practical implications to every nature sciences branch. First of all, there are a lot of sub-habitat groups that can represent terrestrial and water ecosystems in Kemaliye. Among the water ecosystems there are mountain lakes, streams, and rivers with strong currents, slow and calm fluxes and dams. There are steppe, forests, orchards, mountain habitats, serpantin areas, rocky areas and many other habitats among the terrestrial ecosystems.

In the scope of the project 19 ecology based activities were carried out with the participants. Four of these activities were creative drama, one station technique, one problem base learning, and the other thirteen was outdoor nature education activities. The activities were consist of scientific process skills; observation, classification, prediction how to make inference and experiment. Also creative thinking and problem solving skills were forefront. Names of the some activity examples are listed down below:

1. Colors in the nature
2. Schist and Minerals
3. Sky observation
4. What is there in water ecosystems? Careful don't let it disappear
5. Life of a lichen and the first evolution step, bryophits
6. From macro world to micro world; tiny tiny creatures
7. Detective naturalist: Let's find the being!
8. If the coats runaway
9. Identifying the noises in the nature: communication with the insects

2. Method

In this study we used case study design as a qualitative research method. Researchers focus on one or many situations which are environment, individuals, processes and events in the case study. They try to identify and understand how they effect or be effected by situation (Merriam 2009; Yıldırım and Simsek, 2008) For this reason with the participants point of view and focusing on a conducted activity or nature education program of "Ecology based Nature Education Project around Kemaliye (Erzincan)" the project was evaluated. To determine the borders of the project the research problem was identified as "What are the views of the participants about the Ecology based Nature Education Project around Kemaliye (Erzincan)". With the frame of the research problem identified sub problems were; *what are the suggestions and critics of the participants about the project? * what kind of changes were made by the project on the lives of the participants?, *which tools are they going to use to transfer their experiences?.

2.1 Participants

The research project was conducted with 60 participant at the age of fourteen and below. After the project call was published on the website "www.dogaokulu.net". 292 people applied project. Project applicants were evaluated by project coordinator and specialists, at the end of the this 60 participants were listed. Firstly evaluation criteria is working as a teacher (number of 25), secondly evaluation criteria is working as a research asistants or master-phd. students at he university (number of 20). And thirdly number of 15 undergraduate students were assessed and chosen.

2.2 Data gathering process and analyzing

In this study we were used document analyzing method. This method was decided due to the 60 participants and many were willing to give feedbacks this document analyzing method was more suited in the scope of the study. According to Yıldırım and Simsek (2008), the situations where there is no possibility to interview or observe document analyzing method covers the written materials analyze of the fact/s. In this content, 3 open-ended questions, what were their suggestions and critics for the project?, what kind of chance did the project made in their life? and what are they planning to transfer their new knowledge and experiences to others?, were asked to the participants. Their answers were analyzed with content analyze from qualitative data analyses. Codes were identified by transcription of participants' answers and then, themes were created from these codes.

3. Findings and Results

Table 1. Themes and codes according to suggestions and critics

Theme	Codes	Quotes	f
Suggestions and Critics	Project period and frequency	P27: to be able to get to more participants funds can be increased. Periods of the nature schools can be increased.	7
	Increasing the number of the participants	P7: First of all it was perfect and I would like it to be given to more participants.	4
	Reparticipation	P39: ...A participant should not be limited to participate only once	4
	Decreasing the participant amount	P28: The number of the participants were to much in my opinion.	1
	Group quality	P14: By only focusing one profession it can be done too.	10
	Transportation	P14: Transportation opportunities can be increased to place which is done nature education.	2
	Education	P29: A request for the observation material on the field to be given to the participants from day before for a research.	5
	Thankfulness	P17: I think so everything went like clockwork and there weren't any negative situation and it should continue.	8
	Unidentified	-	16

According to Table 1, eight codes were identified from the feedbacks of the participants. Participants suggested that extension of project period and frequency, increasing the number of the participants and allowing re-participation. They have suggestion on theme of group quality that rather having a heterogeneous group it can be for one profession group (f=10).

Table 2. Themes and codes according to the changes on their environment view and life

Theme	Codes	Quotes	f
Changes on their environment view and on their life	Sharing the knowledge and increasing the awareness	P14: By seeing how many natural resource and richness that Turkey had I understood I should have more conscious and this made me have a need to transfer my new learned knowledge to many others	16
	Interest- Motivation- self-confidence	P56: The effect of this place is alone a transformation. I know what to do and where to be.	9
	Protecting the environment and the nature	P22: I think that I have improved my vision. From now on I will hold on to nature, protect and warn people.	9
	Classifying species	P27: This nature education taught me to see nature, before just seeing a tree is now a thing for me which I can identify fir, spruce and others.	4
	Love of nature and awareness	P6: ...what I want to say is that even when a person, who is as far as it can be from nature, comes here.....can live with an awareness. .	12
Unidentified		2	

On "changes on their environment view and on their life" theme the most repetitive code is "sharing the knowledge and increasing the awareness" (f=16). Participants want mostly to share their new knowledge and experiences to others and improve their awareness on the subject.

Table 3. Theme and subthemes on methods which they used to transfer their experiences

Theme	Subthemes	Quotes	f
Transferred method their experiences	Reflecting to their social environment and life	P22: First of all to my closes people I will share my knowledge on nature and try to improve their consciousness on the subject	16
	Reflecting to their professional environment and life	P19: ...during the field exercises because I learned what and how to approach to things now I can have classes around the school with my students, and can teach them their surrounding, the creature that lives in, and how to question the reasons for there being in that surrounding.	29

When examination on responses from participants to question “How do you plan of transfer to surrounding what you have learned from the project? ”, it leads to two subthemes. Most of the participants plan to transfer their new knowledge and experiences to their professional life and to their life styles. Repetitive codes related to reflecting to professional life and life styles are shown in the following table;

Table 4. Subtheme and codes on reflected to the professional surrounding life

Subthemes	Codes	Quotes	f
Reflected to the professional surrounding life	To make presentation (lecture) about Kemaliye and nature	P16: I am planning to prepare and present a presentation about Kemaliye and nature training for my teacher friends in the seminar period	10
	Organizing outdoor education activities	P17: I am planning to organized tour to the botanic parks and museums.	12
	To create collection and share	P49: We will prepare insect, plant, stone collection with our students. Thus, they will be more curious in time and they will get detailed information.	4
	To share photograph and documentary	P16: I collected various samples, I took photos and videos, I will share them with my teacher friends.	2
	Magazine Publishing	P36: I will publish a magazine called Kemaliye, just arrived. I will send all of the participants and trainers, if the magazine liked by the people, duplicating and I'll ensure provide free way.	1
	To create museum	P1: Firstly, I will create a museum in the school. I think, I can instill love of nature to the students and their parents with plant, animal and cultural feature tiny museum.	2
	To organizing nature project	P13: First of all, the best way to teaching the nature in the nature. In this way I can increase the catchy and I can get them to live this experiences with small nature projects.	3

Seven different codes are determined related to sub theme of reflecting new knowledge about to the professional life “Presentation on Kemaliye and nature education, activity organization on outdoor education, establishing and then sharing collection, sharing photographs and documentaries, publishing a magazine, establishing museum, organization of mini nature project” respectively. Participant comments, especially related to professional life give us information about the widespread impact of the project will take place.

4. Conclusion And Recommendation

Reponses of the participants about ‘Ecology based Nature Education Project around Kemaliye (Erzincan) is subsumes under the some of certain category. In the end of the study: negative criticisms related to the project are decreasing number of the participants, teaching and transportation, recommendations are increasing number of the participants, quality of the participant group. The participant also mentioned their appreciation to the project, its coordinator and instructors under this category. The participants indicated what gained after the education; love of nature and awareness in their daily life and in the nature, willing to share their gained knowledge and aware the people, conservation of environment and nature as a task in their life, a new perspective to nature and ability of distinguishing of organism in their environments. The participants stated to reflect their learning and experiences to their social and professional life. Especially about the reflection to their professional life, they mentioned ‘Presentation on Kemaliye Nature Education’ to their colleagues, activity organization on ‘outdoor education’ to their students’, establishing ‘collection’ with their students’ and goal ‘establishing museum’. As a result of the

participants' discourses about ecology based nature education project, we can say that this project attain one's goal either teaching and learning process or its effect on participants.

Guler (2009), as a quantitative study for similar nature education project, reported that participants improved themselves, affected deeply their view of life, would be participating individuals more responsibility to the environment due to their participation to the education. Keles, Uzun and Uzun (2010) investigated changes in the candidate teachers depending a nature education project and also reported similarly affection in the participant behalf of awareness, attitude and positive behaviors due to the educational project. Different environmental education programs such as field observation tours, walking, camping and adventure activities help children to enhance effective interaction with environment, to be more sensitive and their behaviors for nature as well as their social interactions (Palmberg and Kuru, 2000).

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