

Full Length Research Paper

The importance of ecology-based nature education project in terms of nature integration and understanding the human-ecosystem relationship

Ali Meydan

Education Faculty, Mersin University, Turkey. E-mail: alimeydan33@hotmail.com

Accepted 13 December, 2010

The aim of this project is to define the importance of 12-day ecology-based education training upon integration with nature and understanding the human-ecosystem relationship. In accordance with this purpose, there has been collected some survey data interviewing with the participants of “Lake Beysehir National Park and Ecology-based Nature Education Project around Konya”. In the qualitative investigation method-used study, 29 participants created the working group. As the data-collecting tool, 4-questioned semi-structured interview form has been used and the data collected from the interviews analysed with content analysis. At the end of the survey, it has been precipitated that it is necessary to raise natural and environmental awareness. First, there has been significant differences in terms of the point-of-view related to nature at the end of the programme, in which human-ecosystem relationship is understood in general terms and this relationship must be accepted as an inseparable whole.

Key words: Nature education, human-ecosystem relationship, Integration with nature, ecology.

INTRODUCTION

The survival of the public is impossible if there is no energy and information exchange between the society and the nature. On the other hand, when the mutual interaction between the nature and the society is systematically analysed, it is seen that the society can only give thanks to nature (Mamedov, 1996: 13). While the society's effect upon the nature is limited until the industrial revolution, this relationship went bad in favour of human in subsequent periods. In subsequent years, the emerging developments in medicine and agriculture has brought along the pressure of human upon the nature (Guler, 2009). In our country and the world, human-caused natural area and sources' destruction has been going on rapidly. If no provision has been made before long, there will be no more natural areas that can be protected by educated people expert in environmental issues in future (Kulkoyluoglu, 2006). These developments has effected the integration of human with nature and human-ecosystem relationship negatively. At the end of this negative interaction, phenomena such as

nature training, nature consciousness, nature awareness have become current issues.

According to Ozaner (2004), in the nature which is a product of synthesis the processes related to different disciplines has been operated all together and they all have interaction with each other and in the end there have occurred different ecosystems and different landscapes. For this reason, nature training carries a multi-discipline character in respect of its content. Due to the similar reason, nature training comes true with the practise of both “intramural” and “extrasclolastic” programmes together. Nature training consists of processes such as informing, awareness raising, warning, balancing, improving, protecting, etc. And aims to develop behaviours in human about those. Besides, it intends to recognise and distinguish the concepts, values and attitudes related to human's biophysical and social surrounding (Ozaner, 2004; Guler, 2007). Activities such as free lessons, programmes, camp trainings formed by the corporations which are in the statue of voluntary

agencies in order to raise this awareness are important developments regarding raising participants' environmental awareness.

In Turkey today, when the young population which forms 1/3 of the young population is considered as having an education system, it is out of question that improving adequateness of nature conscious behaviours and spreading it to different education levels are obligatory (Seremet and Yasar, 2008). One of the most important of those activities is the project of "Scientific nature training in natural parks" project launched by TUBITAK in Termessos Natural Park in 1999. In 2000 Kackar Mountains Natural Park, in 2003 Kazdagi Natural Park, and in 2004 Capadocia Natural Park were added and nature training has become 4 (Ozoner and Yalcin, 2001). That number increased to 9 regions in 2005, 11 regions in 2006, 13 regions in 2007, 18 regions in 2008 and 27 regions in 2009 with the combination of summer science schools with nature trainings. Within the scope of the project, while the university students have been trained in the early years, research assistant in universities, professional tourist guides, and scout leaders teachers have been started to be trained since 2001. At the end of the nature training programme that has been dealt within an interdisciplinary approach, what is aimed is to make them ask questions, arouse their curiosity and interest, make them become skillful about understanding the balance of nature, originality in itself, its uniqueness, its form-shape and aesthetic variety, make them develop a new style for themselves in understanding and having a different viewpoint to nature (Ozoner, 2003; Ozoner, 2004; Demirsoy, 2004; Yanik, 2006; Ozoner, 2007).

In the example of "Ecological based environmental training in Beysehir lake national park and the areas around Konya II" that has been practised in cooperation with Department of Science and Society, Mersin University – TUBITAK in July, what is aimed is that "Nature training" projects are important for integration of human with nature and understanding of human-ecosystem relationship. Within this scope, there has been sought answers to these sub-goals:

1. What is the importance of acquiring nature awareness for protecting the nature?
2. How much, do you think, the training that you participated is effective upon integrating with nature and getting closer to nature?
3. In which level have you understood the human-ecosystem relationship within the scope of the training that you took part in?
4. What do you think about the correct level of human-ecosystem relationship?

METHODS

In the study, fact science has been used from the qualitative research motives. Fact science motive focuses on the facts that are

recognised but not have been understood in a profound and detailed way. Fact science provides a good research basis for studies that aim to research facts which aren't so unfamiliar to people but at the same time not has made any sense to them, too (Yildirim ve Simsek, 2005).

Participants

1) The participants of the research are the 29 people who has taken part in "Lake Beysehir National Park and Ecology-based nature training project around Konya II". 13 of the participants are males and 16 are females.

2) The ages of the participants vary between 20 and 42; and their professional experiences vary between 1 and 17 years.

3) In the project; 4 Geography teachers, 2 Preschool teachers, 10 Primary school teachers, 5 Science teachers- Biologist, 1 Turkish teacher, 1 Maths teacher, 1 English teacher, 1 Private education teacher, 2 Jeologist- Jeophysicians, 1 Forest Engineer, and 1 Philosophy teacher have took part.

4) 13 of the participants are master and doctoral students, 15 are scout leaders, and 1 is civil society organization representative.

Data gathering and analysis

The data of the research have been collected by using semi-structured interview technique from the nature training participants. In order to define the open-ended questions that have been used in the interview, the scales which are used in the researches, that analyses teachers' views, self-efficacies, and attitudes related to nature training, have been analysed (Meydan and Akbasli, 2008; Guler, 2009; Erol and Gezer, 2006; Erten, 2003; Moseley, Reinke and Bookout, 2002; Payne, 2006; Pitman, 2004). In the interview that has been done, there has been given place to questions such as the importance of acquiring nature and environment awareness for protecting the nature, the importance of ecology-based nature training for getting closer to nature and integrating with it and in terms of understanding human-ecosystem relationship and the coorrect level of human-ecosystem relationship. Upon the defined interview questions, necessary corrections have been done by receiving nature training and pedagogics experts' views.

For the analysis of interview data, the acquired data have been classified under categories and been become meaningful which enables correction of qualitative data easy. So that, bringing close together and integrating of data in different parts have become easy (Yildirim and Simsek, 2005).

FINDINGS AND INTERPRETATIONS

The views of the partisipants have been tabulated primarily by codifying. Then, they have been interpreted quoting from those views. When Table 1 has been analysed, the participants have emphasised that acquiring nature and environment awareness means protecting nature, protecting nature means protecting human, and the other livings has right to live in nature like human. Some examples from the participants' stated views:

P.11: "If we do not know the role of nature and environment in human's life, we cannot take a step for protecting the nature. If there is awareness there will be

Table 1. The views of the participants related to acquiring nature and environment awareness for protecting the nature

The importance of acquiring nature and environment awareness for protecting the nature	f
Acquiring nature and environment awareness is important for protecting the nature.	8
Protecting nature is protecting human as well.	6
There are things that every human can do individually.	5
Required precautions must be taken as soon as possible.	7
The nature must be benefited from sufficiently and must be protected at the same time.	5

Table 2. The views of the participants related to nature training's effect upon getting close to nature and integrating with nature

The importance of nature trainings for getting close to nature and integrating with nature	f
My point of view about the nature has changed	9
It helped me to have different point of views about the nature and accept it as a whole.	8
It was as effective as the difference between seeing and looking.	4
I noticed that we are the part of the nature not its master.	6
I learned the perfect harmony in itself and its own language.	5

protection, as well”.

P.13: “While the nature is disappearing it does not only disappears on its own, but also sweeps away all the livings in the nature with itself. I think the people who have acquired nature and environment awareness will be more sensitive to nature”.

P.15: “Comprehending the relationship between livings and nonlivings makes me think that humans are not different from each other very much and protecting the nature will be possible when it is understood”.

P.24: “If people gain nature and environment awareness, they not only protect the nature but also inform the people around them. They understand the relationship with nature better and they act more sensitively, saving is enough, as well”.

In terms of the participants, ecology-based nature training is quite effective for getting close to nature and integrating with it. When Table 2 has been analysed, it is understood that the project has changed the viewpoint to nature and it's important for considering it as a whole. Besides, it also emphasises that the people are part of the nature not its master, there is a perfect harmony in itself and this programme is important for learning the nature's language. Some of the views of the participants are as below:

P.2: “It is exceedingly effective. Because while we were considering how much the stones, soil, trees etc. are important before, now I consider about the flower's type, rock's type, and the plant's type that I have seen and the importance of them for nature”.

P.3: “After that, we started to consider as part of the nature. We are aware of all the beauties of the nature from now on. We will look at it in a more detailed way”.

P.7: “Up to now I have had no chance of hugging to a juniper, feeling it and feeling it's presence. I incorporated a stone, a tree, a flower, an insect, all creatures apart from me in myself thinking them one more. For that reason, I think that it is very effective”.

P.13: “We learned that the nature is not only limited with vegetation cover, and geological structure, fauna, climate and water level are also effective upon the nature”.

P.27: “As a geologist while I accept myself as close to the nature I noticed that in fact I am not very close to it. By the help of this training, I learned considering the nature in different viewpoints and in different disciplines and perceiving it” (Table 3).

One of the aims of the practised project is providing people to notice the relationship of human-ecosystem. Participants think that they generally understood this relationship. Moreover, they think that not nature to human but human to nature is dependant, the people are part of it. Besides, they put forward that unplanned interference to nature destroys it and it causes a negative interaction between human and ecosystem, and human must be inside the ecosystem without destroying it. Some views of the participants are as below:

P.3: “We thought that people are in the centre of the nature; however, we understood that people are only a part of it”.

Table 3. The views of the participants related to comprehension of them for human-ecosystem relationship at the end of the project.

In which level the human-ecosystem relationship has been understood	f
I understood in upper level that human and nature are a whole.	9
Not nature depends on human but human to nature.	4
Human is not in the centre of the nature but a part of it	3
Unplanned human interferences effect the nature too much and threatens it.	7
There is a negative interaction between human-ecosystem.	4
Human must stay in the nature without damaging it.	4

Table 4. Participants' views in relation to which level human-ecosystem relationship must be.

In which level human-ecosystem relationship must be	f
I do not think them as indissociable.	6
Our living in an ecosystem must not be forgotten.	3
Human's damage to ecosystem must be reduced to minimum level.	6
It must be in suitable behaviour level and in a way which does not give any harm to ecosystem.	7
A liveable nature and environment must be left to the next generations.	6
Human must not destroy anything while trying to correct something.	3

P.11: "The people have much effect upon the ecosystem. We kill the flora and fauna in the place that the river flows when we block the water's natural flow. Or, when we apply a poisonous medicine upon the plants, animal's eating of the plant and our eating of the animal is an example to human-ecosystem relationship".

P.14: "In the present situation I observed that there is a negative relationship between the people and ecosystem".

P.26: "It must not be ignored that people are parts of the world beside being an enemy who always give harm to nature and making it impossible to live in".

P.28: "It was a perfect chance to create awareness as an individual. Persistency in learning level has increased for theory and practice becoming together" (Table 4).

According to participants, human-ecosystem relationship must be indissociable. Human's living in the ecosystem and its dependancy to it must not be forgotten and human's damage to ecosystem must be reduced to minimum level. It is very important for leaving a liveable environment to the next generations. Some participants' views are as below:

P.5: "If human, as a part of nature, wants to protect its place in nature and exist in it for a long time, they should understand that they are not the only one who have voice, and they are responsible for leaving a liveable nature and environment for next generations, and it must not be ignored".

P.15: "I thing there can be presented a sustainable environment relationship. I believe that there must be

developmental studies as well as protective ones. Humankind must think about the less damaging ways of nature".

P.25: "I think that there must be benefited from the nature without gaving any harm to nature, in a peaceful way with nature and respecting to ecosystem's all creatures".

P.26: "There can be constituted a nature which is suitable to live together by using the sources in a correct way and making conscious people reach to large masses. There must be supplied a togetherness in the best and most correct way since they cannot be thought seperately".

DISCUSSION AND CONCLUSION

The most important result of "Nature Training" projects in terms of understanding human-ecosystem relationship and integrating with nature, is increasing participants' awareness and constituting a sustainable natural area awareness. When research findings have been analysed, it is understood that Beysehir nature training participants have thought of having nature awareness means protecting the nature, protecting nature means protecting human, and other livings have right to live in the nature (Table 1). According to Meydan and Akbasli (2008) protecting the nature and leaving a liveable nature to next generations is only possible by learning the nature's own language.

In terms of getting closer to nature and integrating with it, the programme's importance for changing the viewpoint to nature and looking at it from a different view and accepting it as a whole has been understood.

Besides, it is emphasised that people are not the master of the nature but a part of it, there is a perfect harmony in itself, and the programme is important for learning its own language. Studies related to define nature awareness show that expecting people to behave in a correct manner by only considering their sufficient nature knowledge is not a correct attitude (Erten, 2003). Ozaner (2007) emphasises that nature's meaning must be known primarily for increasing the nature awareness.

In the result of the research, it is seen that the participants have generally understood the human-ecosystem relationship. Guler (2009) mentioned that the teachers who took ecology-based nature training have been effected in a positive way in their attitude to nature and viewpoint about the world and they are very happy with participating in this training. In their thereafter life, their views about being a more aware, more responsible to nature and more participative individuals have changed. Kawashima (1998) propounded that nature training's most important aim is to raise sensitive people who have nature awareness, if there cannot be constituted a sustainable society and there cannot be practised important changes in human's lifestyles, global environment problems cannot be solved.

In the study, it is revealed that human-ecosystem relationship is an inseparable whole. Haktanır (2007) mentioned that there are a lot of activities that nature training participants can practise and shoulder responsibilities related to nature training. Demirsoy expresses the importance of nature training by saying: "... this training that is done on a terrain has caused many people to be a scientist amatively. However, we couldn't express it neither after that nor now. We could not popularise the cheapest and easiest way of encouragement for being a scientist....."; "the participants who have taken place in TUBITAK projects have started to understand the mechanic of nature when they look at a flower. Saving a person in such a way is also very important. Thanks to this way, what is nature protection, how a scientist must be and nature philosophy is taught." (Yanik, 2006).

Suggestions

Benefiting from the nature without giving any harm to it and contributing next generations' benefit from it is really necessary for the substantial use of nature. The convection of the knowledge of participants to the people around them and presenting exemplary behaviour should be provided at the end of the programme. Ecology-based nature trainings should be popularised, participants should be increased and different working groups should be provided to participate. Individuals should be raisen awareness about recognizing their own environment.

Individuals that take part in the project should be support

encouraged to set up new projects and economical should be provided. For substantial training, participants should be provided a view sharing environment.

REFERENCES

- Demirsoy A (2004). *Tips Last Emperor "Science Society."* New York: Meteksan A. P.
- Erol GH, Ve Gezer K (2006). *Prospective of Elementary School Teachers' Attitudes Toward Environment and Environmental Problems.* *Int. J. Environ. Sci. Educ.*, 1(1): 65-77.
- Güler T (2007). *Environmental Education. Non-formal Environmental Education in Education.* Broadcast Environ. Foundation Ankara, Turkey, 178: 99-116.
- Güler, T. (2009). *An Ecology-Based Environmental Education Teachers' Perceptions of Environmental Education Against Effects.* *Educ. Sci.*, 34: 151.
- Haktanır G (2007). *Environmental Education. Preschool Environmental Education.* Environ. Foundation Turkey, 178: 11-34.
- Kawashima M (1998). *Development of Teaching Materials. A Focus on Lakes/Rivers in Environmental Education, Tokyo*, pp. 33-50s.
- Külköylüoğlu O (2006). *Environment and the Environment (Human Nature Connection).* Abant İzzet Baysal University, Spring Foundation.
- Mamedow, N. (1996). *Mutual interaction of society and nature: Social Ecology.* *J. Ecol.*, 21: 13-15.
- Meydan A, Akbaşlı S (2008). *The Importance Of Ecology-Based Nature Education Programs In Learning The Nature Language.* 11th International Conference on Further Education in the Balkan Countries. Selçuk University. Konya. 23-26. *Bildiriler Kitabı.* 1. Cilt (565-576).
- Moseley C, Reinke K, Ve Bookout V (2002). *The effect of teaching outdoor environmental education on preservice teachers' attitudes toward self-efficacy and outcome expectancy.* *J. Environ. Educ.*, 34(1): 9-15.
- Ozaner FS, Ve Yalçın G (2000). *"National parks Scientific Environmental Education "*, V. International Symposium on Ecology and Environmental Problems. German Cultural Center in Ankara, pp. 64-76.
- Ozaner FS (2003). *The Importance of Ecology and Geography Activities Ecotourism Based Environmental Education.* E.Ü. 2 Department of Geography Symposiums Geographic Environmental Protection and Tourism Symposium, April 16 to 18 in Izmir-Turkey, pp. 51-54.
- Ozaner FS (2004). *"Turkey, out of school environmental education is and what should be done?"* V. National Ecology and Environment Congress, 5-8 Oct. 2004 Taksim International Abant Palace Abant İzzet Baysal University, and Biologists Association, Abant-Bolu. *Proceedings Association of Biologists, London, Nature and Environment*, pp. 67-98.
- Ozaner FS (2007). *"The importance of flowers and insects, nature, language öğretilmesindeki; Alpine flowers a special place in this education."* sky Nearest Plants: Alpine Plants Project, Flora Tourism Education, Ed. F. Knight, 20 April to 9 September 2007, *Proceedings, Erzurum*, pp. 145-155.
- Payne PG (2006). *Environmental education and curriculum theory.* *J. Environ. Educ.*, 37(2): 25-35.
- Pitman BJ (2004). *Project WILD. A summary of research findings 1983-1995 and 1996-2003.* Project WILD National Office Council for Environmental Education, US, pp. 1-28.
- Şeremet M, Ve Yaşar O (2008). *National parks in Turkey, A Study on Education and Training National parks: The Gallipoli Peninsula Historical National Park.* *Int. J. Soc. Work*, 1(5): 910-942.
- Yanık FE (2006). *Doğaperest.* Ali Demirsoy Book. Turkey Is Bank Cultural Publications, , New York, 950S: 385, 388.
- Yıldırım A, Şimşek H (2005). *Qualitative Research Methods in Social Sciences.* New York: Exclusive Publications.