



Understandings of Students' Environmental Ethics About Importance of Biodiversity in Kars

Kars İl'inde Öğrencilerin Biyoçeşitliliğin Önemine Yönelik Çevre Etiği Anlayışları

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Öz

Dünyanın önemli biyolojik çeşitlilik alanları arasında Türkiye öncelikli bölgeler arasındadır. Bu nedenle Biyolojik çeşitlilik eğitimi Türkiye için bir gerekliliktir ve bu konuya yönelik araştırmalar önem oluşturmaktadır. Öğrencilerin biyolojik çeşitlilik gibi önemli bir çevre sorununa yönelik düşüncelerinin temelini oluşturacak çevre etiği yaklaşımlarının belirlenmesi, bir çevre sorunu haline gelmiş olan bu konunun çözümü için farklı bakış açıları sunacak ve çevreci davranışları etkileyecektir. Bu çalışmanın amacı öğrencilerin biyolojik çeşitliliğin önemine yönelik hangi çevre etiği yaklaşımlarına sahip olduğunu belirlemektir. Çalışmada nitel araştırma modeli çerçevesine bulunan durum çalışması kullanılmıştır. Veri toplama aracı olarak, bir eğitim bilimleri uzmanı ile üç alan uzmanının görüşü alınarak araştırmacı tarafından hazırlanan açık uçlu sorudan oluşan anket formu kullanılmıştır. Toplanan verilerin analizi için içerik analizi ve yüzde değeri hesabı yapılmıştır. Sorulara verilen cevapların ışığında kategoriler ve kodlar oluşturulmuştur. Araştırmanın sonuçlarına göre, tüm sorularda öğrenciler en fazla insan merkezli etik yaklaşımına yönelik yanıt vermiştir. Bu yaklaşımın öğrenciler üzerinde daha baskın olduğu söylenebilir.

Anahtar Kelimeler

biyoçeşitlilik
çevre etiği
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Keywords

biodiversity
environmental ethics
biodiversity importance
environmental education

Abstract

Turkey is among the most important biodiversity areas of the world. For this reason Biodiversity education is a necessity for Turkey and researches on this issue is important. The identification of environmental ethics approaches that will form the basis for students' thinking about important environmental issues such as biodiversity will present different perspectives for the solution of this issue which has become an environmental problem and will affect environmental behavior. The aim of this study is to determine the students' environmental ethics approaches for the importance of biodiversity. The case study was used in the study within the qualitative research model. As a data collection tool, a questionnaire form consisting of open ended questions was used. Content analysis and percent value calculations were made for the analysis of collected data. Categories and codes were created in the light of the answers given to the questions. According to the results of the study, students answered the most anthropocentric ethical approach in all questions. It can be said that this approach is more dominant in students.

1. Introduction

Turkey is among the priority areas for the protection of biodiversity (Mittermeier et al.2004, tran. Dervişoğlu 2010). For this reason, biodiversity education is a necessity for Turkey and researches on this issue is important (Dervişoğlu, 2010). This problem has gained a global dimension at the “United Nations Conference on Environment and Development” held in 1992 (UNCED, 1992). At this conference has emphasized the importance of education in the protection of biodiversity.

In environmental education, it is not enough to give only information, which should be given to people’s belief systems (Lynch, 1998). As a reason for the increase in the environmental problems, is due to the fact that sufficient importance is not given to environmental ethics and environmental aesthetics (Brause and Wood, 1993; Tont, 1996). Environmental ethics indicate the right and wrong in the behavior of people towards other creatures (Benson, 2000). So that environmental ethics provide that people make up their own principles and values (Inglis, 2008). From this point of view, the principles used to solve environmental problems will become more meaningful with ethical approaches specific to the person and will lead the practices in education (Uygun, 2006). These approaches have influenced environmental education in the light of their views (Önkal and Yağanak, 2005). Each approach is expressed in its own unique values.

These values shape human behavior (Disinger, 2001). From this point of view, environmental education, which attaches importance to values, will play a major role in the training of environmentally sensitive individuals (Alexandre and Rodríguez, 2001; Carr, 2004; Davis, 1998; Franson and Garling, 1999; Gurevitz, 2000; Özdemir, 2007; Thapa, 2001).

There are three types of environmental ethics approaches, mainly Ecocentric, Biocentric and Anthropocentric. Anthropocentric ethical conception argues that protection of the environment means protection of people and that natural resources should be used in a balanced way so that people do not lose their quality of life (Dunlap and Van Liere, 1978; Callicott and Frodeman,2009). The biocentric ethical understanding advocates that each creature is a value in itself and that every creature has rights (Ertan, 2004). In ecocentric ethical sense, people protect nature and do not think about their own interests (Dunlap and Van Liere, 1978). Deep ecology and ecofeminist approaches are the ecological approaches to ecocentric environmental ethics (Gürbüzöğlü Yalmanç, 2015). And theocentric environmental ethics that develops in itself is treated as an independent approach. This approach is dominated by the view that people should protect nature because it created God (Des Jardins, 2006).

Values begin to settle into human life at a young age and remain with him throughout his life (Schwartz, 1994). The identification of environmental ethics approaches that will form the basis for students’ thinking about important environmental issues such as biodiversity will present different perspectives for the solution of this issue which has become an environmental problem and will affect environmental behavior. The aim of this study is to determine the students which environmental ethics approaches have intended for the importance of biodiversity.

2. Method

The case study was used in the study within the qualitative research model. In this context, the internal case study came to the forefront. This includes a single situation. The purpose of the internal case study is to understand the inner workings of the situation and to be able to identify the situation as a whole (Stake, 1996). An attempt has been made to identify details of a situation in order to determine which environmental ethics approach students have which rate towards the importance of biodiversity. Kars Province in Turkey’s Eastern Anatolia Region also has rich vegetation coverage in terms of its location in the transition area of Iran-Turan, Europe-Siberia and Mediterranean flora. There are 1615 species identified on this shore. This value is 16% of the Turkish flora. 71 of them are endemic and 12 of them are only Kars province. There are also three “Important Plant Areas” within the provincial borders of Kars province (Güneş and Özba, 2014). Kars province, which has significant plant diversity for the world and Turkey, has been chosen as the study area for this reason. For this reason, the environmental ethics of the students living here are important in this regard when they establish their views on the importance of biodiversity. The study group of the study has formed a third and fourth year junior high school students who have taken the issue of biodiversity and are able to comment on the related issue in three intermediate school in terms of success in Kars Province.

Table 1. Distribution of students by class level

Gender	Class Level	
	Third Grade	Fourth Grade
Girls	54	51
Boys	51	45
Total	105	96

As a data collection tool, a questionnaire form consisting of open ended questions was used. This form was prepared by the researcher with the opinion of an educational science expert and three field experts. In this form, the following question is directed at the students:

1. Is it important to have a lot of living diversity around you? Why?
2. What are the consequences of the reduction of biodiversity?
3. Does all life forms in the world have the same importance for you? Why?

Content analysis and percent value calculations were made for the analysis of collected data. Categories and codes were created in the light of the answers given to the questions. A direct citation was made to support the coding made and the opinions of the students about the situation. For the reliability of the qualitative data, three expert opinions with field work were taken and the percentage of consultation among experts (Miles and Huberman, 1994) was set at 80%. The validity criteria of Roberts and Priest (2006) were taken into account in the qualitative researches when the validity of this study was made. According to these criteria, researcher neutrality is taken as basis. Code and categories are discussed by experts. In addition, the research process is detailed.

3. Results

According to the answers received from the questionnaire distributed to the students, the following findings have been reached.

Findings related to “Is it important to have a lot of living diversity around you? Why?” question

Responses from this questionnaire are divided into categories and codes that are grouped according to their environmental approach.

Table 2. Content analysis results for the first question

Types of environmental ethics	Category	Codes
Anthropocentric ethic	Living things are injured to people (f=105)	Nutrition Drug production Economy
Ecocentric ethic	Impact of nature on balance (f=51) Impact on the food chain (f=21)	Living things provide the balance of nature Every living thing is part of nature
Theocentric ethic	There is a reason why God creates living things (f=21)	Huge power

In this question, all of the students stated that it is important that there are a lot of living diversity. As stated in Table 2, it is seen that students have the most Anthropocentric environmental ethics (f=105) in this question. Here, students have argued that the vast diversity of living things will be beneficial to humans for reasons such as nutrition, medicine, and economics. Two categories have been achieved in the ecocentric approach. They argued that the vast majority of live diversity is important in terms of the balance of nature (f= 51) and its effect on the food chain (f=21). Given the Theocentric ethics approach, students emphasized that living diversity is important because it is a cause of God’s creation of life (f= 21), because it is a great power. Some student opinions on this question are as follows.

“Is important. Because, for example, if honey does not exist, we cannot eat honey.” (E58, Anthropocentric)

“The diversity of living things is important. They give us meat, milk, etc.” (K85, Anthropocentric)

Findings related to “What are the consequences of the reduction of biodiversity?” question

The findings obtained for this question are given.

Table 3. Content analysis results for the second question

Types of environmental ethics	Category	Codes
Anthropocentric ethic	Living things are injured to people (f=111)	Nutrition Drug production Economy Oxygen requirement Global warming
Ecocentric ethic	Impact of nature on balance (f=72)	Degradation of life balance Destruction of the order of the universe Food chain deterioration
Theocentric ethic	God created the whole world in balance (f=6)	Degeneration of nature's balance

It can be seen from Table 3 that the students gave the most appropriate responses to the most anthropocentric environment ethics (f=111). Here students stated that the reduction in bio-diversity, the production of drugs, the deterioration of the economy, the increased need for oxygen, and global warming will occur. All these things will not be in the benefit of the people. Within the context of ecocentric ethics, 72 students stated that with the reduction of biodiversity, the life balance, the order of the universe and the food chain will deteriorate. This, in general, is said to have a negative impact on the balance of nature. A very small number of students (f=6) said that the decline of biodiversity would reduce the balance of nature and that it would affect the balance established by God on earth. Some student opinions on this question are as follows.

“The balance of the world goes bad, life goes bad, order goes bad, they are all relevant” (K19, Ecocentric)

“The consequences are bad, the universe is distorted, everything is affected” (K45, Ecocentric)

Findings related to “Does all life forms in the world have the same importance for you? Why?” question

The findings obtained for this question are given.

Table 4. Content analysis results for the third question

The importance of living species	Types of environmental ethics	Category	Codes
Live species do not have the same significance for me f(129)	Anthropocentric ethic	Those who benefit people (f=105) According to others, man is superior (f=6)	Love for some animals Nutrition Wild animals Toxic animals Being intelligent
Live species have the same significance for me (f=39)	Ecocentric ethic	Every living things contributes to the balance of nature (f=72)	Balance of nature
Live species have the same significance for me (f=18)	Biocentric ethic	All living things are valuable (f=18)	Being alive Each of them has a duty
Live species have the same significance for me(f=15)	Theocentric ethic	Creation of God's creatures (f=15)	Every creature is a regular

According to Table 4, 129 of the students stated that all living species did not have the same importance for them and 72 was of equal importance. Students with anthropologist environmental ethics have shown that living beings have different significance because they love animals that are not harmful to people with it being thought that wild and poisonous animals can harm people, there are living things that provide food to humans and that the only creature that possesses intelligence is human. In the ecocentric ethical approach, creatures are equally important because the contribution of every living thing is in providing the balance of nature. Living species have been seen to be equally important in the biocentric ethical approach, in which all living beings are valued because of the vitality of beings in the nature and the assumption of a task by each. In the Theocentric ethical approach, it is argued that every living thing created by God is equally important. Some student opinions on this question are as follows.

“They all have the same importance if they are different, they are alive” (K102, Biocentric)

“All of them created a plane to Allah, so they are all the same for me” (E95, Theocentric)

4. Discussion and Conclusions

According to the results of the study, students answered the most anthropocentric ethical approach in all three questions. It can be said that this approach is more dominant in students. This finding of the study is consistent with the results of Dervişoğlu's (2010) study. In Dervişoğlu (2010) study, it was determined that “anthropocentric environmentalist”

value orientation related to living species of university students is predominant. Students have generally dealt with biodiversity for the benefit of humanity in this study. Yörek et al. (2009) also determined that high school students value the anthropocentric approach resulting in the beneficial and harmful effects of living creatures. This study also shows that most of the students are based on the importance interest relation which is given to the living by the influence of the Anthropocentric ethical approach.

According to Erten and Aydogdu (2011), this approach is highly undesirable because it will not be beneficial for long term protection of the environment.

Three basic environmental ethic approaches (anthropocentric, ecocentric, teocentric) have emerged in all three questions. Apart from this, biocentric environmental ethic was also seen according to the response given by the students in the last question. However, according to the anthropocentric approach, the frequency of the others is also lower in three questions. Here, the type of dominant approach that teachers and textbooks contain may also have had an impact on students. According to Özdemir (2010), in Turkey primary and secondary school textbooks, biodiversity is seen as more economic value and little is mentioned about the value of biological diversity. Work should be done to develop especially ecocentric approaches in humans, and environmental problems should be solved with this approach (Gürbüzöğlü Yalmanlı, 2015). Because those who have high attitudes this approach environmentally beneficial behaviors are expected (Erten and Aydogdu, 2011). Therefore, in Turkey, which is a priority region for conservation of biodiversity, injured behaviors to protect biodiversity will also emerge from these intellectuals. Awareness-raising activities aimed at developing this approach can be done in children from early ages.

Children ages 9-10 may begin to assess the interaction between people and nature in environmental education (Arslan, 1997). For that reason we can accept this age group as the period in which children's ethical perceptions towards the environment begin to develop. In this regard, starting with the belief that teachers and parents can influence the ethical perception of children in this period can be informed them about environmental approaches. So like this studies can be done with more participants.

5. References

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