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## **Investigation of the Information, Attitude and Behaviors of the Conservatory Secondary School Students around the Environment**

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**Abstract:** In the survey, it was aimed to determine the level of environmental awareness (knowledge, behavior and attitude) of the sixth, seventh and eighth grade students in the conservatory middle school level. The study group consists of 76 students, 62 of which are from middle school and 14 are from ballet. For this purpose, a five-point Likert-type environmental awareness questionnaire developed by Erten was used. The 20 items of this questionnaire are environmental information, the 20 items are the behavior towards the environment and the last 20 items are the items prepared to determine the attitude toward the environment. The answers given by the students to the questionnaire were analyzed and interpreted statistically with the SPSS program. As a result of the analysis, it was determined that conservatorial middle school students' attitudes towards the environment and environmental information are at a higher level than the average behavior of their surroundings. In addition, it has been determined that the attitudes and knowledge levels of the students have not much influence on the beneficial behaviors of the students.

**Keywords:** Conservatory, Secondary school students, Environmental awareness

### **Introduction**

The environment in which the living beings living on the earth continue their lives, affected by the environment in which they live and affect the environment, and the lives of other creatures like himself and others are called the environment (Güler, 2009). In order to survive all living creatures, it is necessary to adapt to the conditions of the environment, and in the same way nature interacts with all living things to provide balance. But in particular, people used the environment they lived in, not at a certain level but in a way that would be entirely suited to their own interests.

This situation has caused the balance between the environment and the living beings to deteriorate and reveal environmental problems. In other words, the root of the environmental problems began with the emergence of the human being. Because human beings have used nature and nature to despise the resources they have offered them, and by doing so they will almost cause them to be consumed, making the resources disappear (Özcan, 2016).

If we define the concept of environmental problems, we can say that it is the name of the global problem that negatively affects the life and behavior forms of all living things regardless of religion, language, race, sex, age, position difference (Erten, 2012). Due to the selfish behaviors that people have shown themselves in their minds, the natural environment, which is getting polluted and almost disappearing day by day, has started to lose its ability to renew itself (Gülay- Ogelman and Güngör, 2015).

In addition, industrial and medical waste has increased with the increase of industrialization. In addition to these wastes, wastes made from materials such as paper, glass, plastic and metal, which are found in the domestic waste category, also increase the environmental pollution. Increasing environmental problems have led to the

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rise of global warming, the disappearance of many resources, the destruction of the health of living beings, particularly human health, and the destruction of natural resources (Ersoy-Quadır, 2015). Erten (2003) listed environmental problems under six main headings as follows:

### **1. Air Pollution**

**Causes:** Consumed fossil fuels, incineration of garbage, radioactive rays

**Results:** Acid rain, global warming, ozone layer damage, fog formation

### **2. Water Pollution**

**Causes:** Overfishing, uncleaned domestic and industrial wastewater, tanker accidents, chemicals, all pests left by the sea

**Results:** Pollution of rivers, collective deaths of marine living, pollution of drinking water, increase of epidemic diseases

### **3. Soil Pollution**

**Causes:** Piles of garbage and garbage, acid rain, fertilization studies, pesticides

**Results:** Increase of heavy metal density in the soil, change of pH value of soil, formation of source of disease makers, deterioration of aesthetic

### **4. The Survival of Animals and Plant Species**

**Causes:** acid rain, plundering of rain forests, monocultural agriculture and forestry, direct removal of plants and animals, pesticides

**Results:** Continued increase of natural disasters due to the disappearance of many plant and animal species, the destruction of forests, the change of climates

### **5. Change of Climate**

**Causes:** The disappearance of tropical rain forests, unlimited consumption of fossil fuels, the use of FKC gases

**Results:** The formation of the greenhouse effect (global warming), the arrival of harmful heat on the earth from the ozone layer

### **6. Trash Problems**

**Causes:** Consumption society, disposal, wastefulness, not being able to evaluate waste at adequate level, lack of education

**Results:** Excessive use of natural resources due to excessive use of natural resources due to extreme use of energy and raw materials, destruction of these resources due to depletion of underground and surface waters, inefficiency of soils contaminated with garbage from soil and threats to living creatures living in or on the soil air pollution and epidemics.

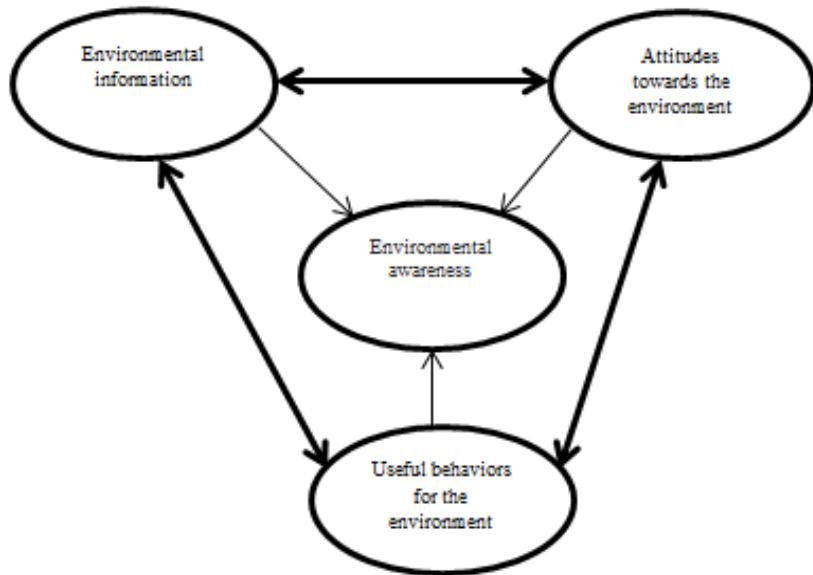
As the environmental problems that arise in this way increase day by day, the importance given to the environment and the sustainable environment should be more emphasized today (Kutlay and Şafaklı, 2013). If a sustainable environment can be gained, people will understand that they are a part of the ecosystem, will respect nature and natural environment, will continue to use their environment for themselves and will be able to use alternative sources besides these natural resources (Okur- Berberoğlu and Uygun, 2013). Environmental awareness must also be established in order to ensure that the concept of sustainable environment emerges more, is known and appreciated.

The concept of environmental awareness can be defined as being sensitive to the environment, dealing with the living environment, using and destroying the natural resources in a necessary scale, and reacting and resolving

all the problems related to the environment (Kutlay and Şafaklı, 2013). As can be seen, the way to stop this ever-increasing danger is to provide positive attitudes and behaviors towards the environment by giving individuals, that is to say, all the human beings the present and future experiences of the present, free from the thoughts they have and the attitudes they have of the environment (Erten, 2003).

In addition, the environmental consciousness is given in the following diagram, which explains the environmental consciousness concept presented in literature in a different way and explains the factors that affect the formation of the environmental consciousness and the relations between them (Erten, 2005; Erten, 2003, Özdemir and Güler, 2003).

Figure 1. Attitudes, Knowledge and Behaviors of Environmental Consciousness and Environmental Consciousness



The researchers Gülay and Güngör (2015) emphasized that human beings are uneducated under the non-environmentally friendly behaviors that they approach to nature and the environment for their own interests and to use them in their own interests. This problem will be overcome with environmental education and it will be removed from it. Environmental education provides an understanding of all attitudes, concepts, values and positive awareness about people's every environment (Güler, 2009). Another aim of environmental education is to change the scientific developments to be parallel to the world order, and to develop environmental awareness (Özcan, 2016).

Prime Minister of Environment Undersecretary organized by the Turkey Environment Education and Training and the UNESCO National Environmental Strategy and Implementation Plan Seminar "Education for Environment" concept, environmentally sensitive, positive behavioral development and to be permanent, the development of environmental awareness, conservation of all values and the resulting is defined as education that will enable them to actively take part in solutions to problems (Kahyaoglu, 2011). In short, according to Erten (2015), the concept of environmental education is a tool used to educate individuals who have environmental awareness and show environmentally friendly behaviors. The environmental awareness concept has three main objectives. These goals are: to have environmental knowledge, to show a positive attitude towards the environment and to be useful to the environment. These goals are explained by Erten (2005) as follows:

**Environmental Information:** Environmental problems, solutions for environmental problems, developments in different ecological areas and information about nature.

**Attitudes towards the Environment:** Negatives (fears, disturbances, etc.) arising from environmental problems, value judgments and readiness that people have for solving environmental problems and so on. are

the attitudes and thoughts that individuals show as positive or negative in the direction of beneficial behaviors for the environment.

**Useful Behaviors for the Environment:** Behaviors performed by environmentally friendly individuals to protect the environment.

It is important for the society to become conscious for a clean and sustainable environment, to know what a sustainable environment is and to educate it in order to gain environmental awareness (Güneş, Alat and Gözüm, 2013). This education should be given especially to children and children should be trained for the necessary knowledge, attitude and behavior. As people learn about the functioning of the places they live in and the positive and negative effects they have on these areas, they act more sensitively and more aware about the environment (Güler, 2009). Especially in recent years, it has been pointed out that the environmental awareness which is worried about the environment is more worrisome and the environmental awareness which is going to get worse should come to the forefront and that this awareness should be given to the children who are younger with environmental education (Gülhan and Yurdatapan, 2014). In other words, it is stated that all these environmental concerns can only be eliminated if the sustainable environmental consciousness is acquired by children and individuals (Artun and Özsevgeç, 2015).

After starting environmental education in primary school age in Turkey are continuing with secondary education after college (Rock, Smart and Sezek, 2009). In addition, education for the environment in our country is maintained both formal and informal. In addition, environmental education in formal education is covered in life science, social science and science courses in the framework of the education programs prepared by the Ministry of National Education (Özcan, 2016).

When we look at researches in environmental education and environmental awareness in the literature, it is seen that most of the researches are based on information and attitudes towards the environment and students are in the fields of primary education, secondary education and higher education. As a result, in some publications in which the information and attitudes towards the environment exist in the groups surveyed, the results of these findings were given as environmental awareness. Based on the fact that these results do not reflect much in the literature given above, it is one of the aims of this research that the conservatory, which is a group which is not taken up to this day, emerges as a need to determine the attitudes, knowledge and behaviors of the 6th, 7th and 8th grade students in secondary school. Whether or not there is a difference in environmental awareness among conservatory secondary school students is also a secondary objective of this study.

## **Method**

In this study, it was aimed to determine the level of environmental consciousness (knowledge, behavior and attitude) of 76 students who were educated in the sixth, seventh and eighth grades of the conservatory middle school level which have no environmental awareness. For this purpose, «environmental awareness scale» was used to measure the environmental consciousness of the students. The scale and the most widely used standardized research in environmental awareness in Turkey and Erten (2005) is a measurement tool developed by five Likert form. The 60-question environmental awareness questionnaire prepared by Erten (2005) was applied to middle school students. The 20 items of this questionnaire are environmental information, the 20 items are the behavior towards the environment and the last 20 items are the items prepared to determine the attitude toward the environment. Statistical analysis of the obtained data was done by SPSS program. The mean values and standard deviations of the data were calculated in order to compare and contrast the differences between attitude, knowledge and behavior and demographic information. Furthermore, in order to determine the contradictions in the materials in different categories, the ones in the attitudes, knowledge and behavior categories were determined and compared according to the mean values. In order to support this, literature analysis and document analysis were conducted. The data obtained are presented in the discussion and findings section from a critical point of view.

Table 1. Demographic information of participants

<b>Gender</b>	<b>Woman</b>	56
	<b>Man</b>	20
<b>Branch</b>	<b>Music</b>	62
	<b>Ballet</b>	14
<b>Class Level</b>	<b>6th grade</b>	22
	<b>7th grade</b>	27
	<b>8th grade</b>	27
<b>Age</b>	<b>10</b>	4
	<b>11</b>	9
	<b>12</b>	29
	<b>13</b>	19
	<b>14</b>	12
	<b>15</b>	3

The demographic information of participants in the sample is as indicated in Table 1. In this context, it is seen that the number of female participants ( $n = 56$ ) is higher than the number of male participants ( $n = 20$ ). Participants in the music branch ( $n = 62$ ) were much more than participants in the ballet branch ( $n = 14$ ). In the class variable, 7th and 8th grade students are in equal number ( $n = 27$ ) while 6th grade students ( $n = 22$ ) are fewer. When the age variable is considered, it is seen that the participants are in the 12-year-old group ( $n = 29$ ) and the least participants are in the 15-year-old group ( $n = 3$ )

## Results and Discussion

### General Findings of Students' Environmental Consciousness

Table 2. General average of environmental awareness survey

Questionnaires	Average	I totally agree
Attitude	3,620	I agree
Information	3,468	I very little agree
Behaviour	3,188	I don't agree
Attitude-Information-Behaviour	3,425	I never agree

When we look at the environmental conscious dimensions of the students, the level of information about the environment of the students is 3.5, the level of the attitudes is 3.6 and the environment friendly behavior is 3.2. Average environmental awareness average scores are 3.4. These results are in line with the ever secondary school students study conducted in Turkey. In other words, when the answers given by the students to the environmental awareness scale were evaluated in terms of dimensions, it was determined that attitudes, knowledge and behavior dimensions are little in the range of participation and participation. In short, it is observed that the environmental awareness level of the conservator students does not differ from the general secondary school student profile (Erten, 2002).

Table 3. General average of the branch variable of the environmental awareness questionnaire

Questionnaires	Branch	N	Average	Standard Deviation
Attitude (1-20)	Music	62	3,615	0,362
	Ballet	14	3,639	0,285
Information (1-20)	Music	62	3,506	0,388
	Ballet	14	3,304	0,519
Behaviour (1-20)	Music	62	3,199	0,417
	Ballet	14	3,139	0,499

According to the questionnaire branch variable, it was determined that there was no significant difference between the music and ballet students when the branch change between 62 music and 14 ballet students was examined. However, it has been observed that music and ballet students have an average of 3.5 in the attitude category and music students in the information category have an average of 3.5 in the attitude category and they have a closer tendency to participate.

Table 4. General averages of the age variable of the environmental awareness questionnaire

Questionnaires	Age	N	Average	Standard Deviation
Attitude (1-20)	10	4	3,750	0,342
	11	9	3,461	0,631
	12	29	3,617	0,242
	13	19	3,695	0,290
	14	12	3,583	0,415
	15	3	3,617	0,153
Information (1-20)	10	4	3,550	0,404
	11	9	3,300	0,557
	12	29	3,526	0,384
	13	19	3,463	0,461
	14	12	3,438	0,395
	15	3	3,467	0,236
Behaviour (1-20)	10	4	3,238	0,287
	11	9	2,850	0,504
	12	29	3,286	0,446
	13	19	3,274	0,410
	14	12	3,138	0,304
	15	3	2,850	0,236

When the questionnaires were analyzed by age variable, it was determined that the students in the group of 10 years had a higher average in the attitude (3.8) and knowledge (3.6) questionnaires. In the Behavioral Survey, it was determined that the averages of the students in the 10-year-old group (3,6) were higher than the students in the other age group. It was also found that the answers to the information categorized by the students in the 11-year group (2,9) and the students in the 15-year group (2,9) had a lower average than the students in the other age group.

Table 5. General average of the class level variable of the environmental awareness questionnaire

Questionnaires	Class Level	N	Average	Standard Deviation
Attitude (1-20)	6	22	3,643	0,459
	7	27	3,556	0,314
	8	27	3,665	0,268
Information (1-20)	6	22	3,459	0,458
	7	27	3,483	0,497
	8	27	3,461	0,298
Behaviour (1-20)	6	22	3,007	0,424
	7	27	3,330	0,451
	8	27	3,194	0,370

When the questionnaires were analyzed according to the class variable, it was determined that the attitude (3.7) was higher than that of the other classes in the 6th and 8th grade in the questionnaire and the 7th grade in the behavior questionnaire (3.3). In the information survey it was determined that all classes had the same average (3,5). However, there is no significant difference between age groups in general. It has also been found that attitudes and information categories are closer to the tendency of all class-level students to participate.

### **Findings of Students' Attitudes Categorized by Answers**

Table 6. Averages of the responses given to the items in the attitude category

<b>Items</b>	<b>Average</b>
E1	4,76
E2	1,89
E3	3,79
E4	3,89
E5	4,8
E6	4,33
E7	4,3
E8	4,16
E9	2,97
E10	1,55
E11	4,42
E12	4,3
E13	3,79
E14	4,25
E15	4,16
E16	3,47
E17	4,28
E18	1,97
E19	3,08
E20	2,21

When we look at the average of the items in the attitude category, the highest average belongs to E5 (I think that many human beings in the ending animal in the end are mistaken to get out of the way) and the lowest average belongs to E10 (I do not intend to do anything to keep the seas, lakes and rivers clean). In other words, students are eager to do so in order to keep the seas, lakes and rivers clean.

### **Differences Between Attitude and Behavior Categories**

- Although I would like to learn the information about how to keep the sea, lakes and rivers clean, the average of the answers given by the students is only (2,38) in spite of how often you participate in the trainings for the protection of the environment despite the average of the students (4,16). They indicate that they have the information they need to keep the environment clean, but that they do not participate in the training activities necessary to turn this information into behavior.

This is supported by Erten (2003)'s pre - school teachers. Pre-school teachers want to learn about conservation students as well as how to keep the sea, lakes and rivers clean. But they do not participate in educational activities to protect the environment.

- Although pupils identify that politicians are not guilty in the creation of disasters (2,97), they want to do something to keep the oceans, lakes and rivers clean (1,55), and they want to do something to prevent further deterioration of nature (4,42) they responded negatively to the question whether you wrote a newspaper or a journalist, a politician, or any of its officials (1,58). In this case, although the responses to students' attitudes towards environmental protection and information questions are positive and high, the responses to behavior are low.
- Most of the students stated that they did not have much conversation with their friends about environmental pollution (2,33) although they stated that they wanted to do something to prevent more deterioration of nature (4,42). It was determined that the students wanted to be involved in the pollution of the environment but they were not able to talk about it with their friends.
- Even though an individual believes that even an individual will make enormous contributions to the protection of the environment (4,3), they have stated that almost all of the members of the group of

friends have bought box drinks (3,46). This meant that the students had to see that all the individuals had to do something with regard to the protection of the environment and that they had seen mistakes made about their behavior.

### **Findings of Students' Information Categorized Answers**

Table 7. Averages of responses to the items in the information category

<b>Items</b>	<b>Average</b>
V1	2,18
V2	4,66
V3	3,47
V4	3,93
V5	1,46
V6	4,39
V7	3,32
V8	3,64
V9	4,28
V10	4,38
V11	3,58
V12	4,17
V13	3,51
V14	4,34
V15	4,04
V16	4,01
V17	2,57
V18	2,83
V19	2,54
V20	2,05

When we look at the average of the items in the information category, it is seen that the highest average belongs to V2 (many rivers and seas are inhabitable and deteriorated due to excessive pollution) and the lowest average belongs to V5 (Exhaust gas harms trees but does not harm people)

### **Differences Between Knowledge and Behavior Categories**

- Students are more likely to take our beverages in returnable bottles instead of in single-use boxes (4,28), and throw broken bottles and bottled bottles into glass pigeons (4,04), despite they do not use the used bottles to throw them into the bottles (2,97). It is understood that the students did not throw the bottles into the bottles and did not make any contribution to the utilization of the recycling feature.

This finding is consistent with Erten's (2002) study with 6th, 7th and 8th grade students, and conservatory students do not perform enough to throw bottles into the bottle.

- Students, glass waste in the municipalities in Turkey, plastics, paper and even though they know they are doing the distinction as the metal (4.34) homes in an unused paper separation and collected place in the notice or forwarding shaped substance (2.89) gave a negative answer. That is to say, although students know that municipalities are separating solid wastes, students have stated that they do not show too much of the behavior of delivering waste papers in their houses to their collection sites.
- Although students have stated that drinking beverages are more beneficial for preserving the environment (4,28) than buying once-in-one bottles, they do not use too many baskets, nets, or long-used market pouches (2,75) to go shopping.

### **Findings of Students' Behavioral Categorization Answers**

Table 8. Averages of the answers given to the items in the behavior category

Items	Average
W1	2,84
W2	3,47
W3	2,89
W4	3,46
W5	2,54
W6	3,46
W7	1,71
W8	2,97
W9	3,59
W10	3,91
W11	4,17
W12	4,09
W13	4,29
W14	2,33
W15	2,5
W16	2,75
W17	4,61
W18	4,21
W19	2,38
W20	1,58

When you look at the average of the items in the behavior category, you can see that the highest average belongs to W17 (I check whether the fennel is closed well after finishing work) and the lowest average is W20 (Do you write to a newspaper or journalist, politician or authorized person to prevent environmental pollution? ).

### **Differences Between Attitudes, Knowledge and Behavior Categories**

- I am very sad to see the used papers that the children have replied in the other trashes (3,79) and it is very important in terms of preserving the environment to take the recycled paper while taking the paper (4,38), showing that they are conscious of this issue, (2,89),as opposed to this situation. This indicates that knowledge and attitudes can't be transferred to behavior.

Conservatory students argue that taking recycled paper is important for preserving the environment, whereas Erten (2002) states that 6th, 7th and 8th grade students are not paying attention to purchasing recycled paper.

- Students need to know the existence of eco-friendly energy sources such as the sun and wind (4,39), fossil fuels to produce electricity, replace the old model cell phones and computers with new ones (2.5) when there is enough money, (4,01) that the presence of materials such as clothing closets would cause energy wastage (3, 79), but they were afraid of the depletion of fossil fuel resources in the near future. This indicates that students have accurate information about fossil fuels and that they do not show new model phone and computer purchasing behaviors in order not to increase carbon dioxide emissions but that their attitudes towards fossil fuels are positive for fossil fuels and they are afraid of depletion of fossil fuels.

### **Conclusion**

In the direction of the data obtained from the questionnaires, it is not enough for the individuals to have a high level of environmental attitudes and environment attitudes in the emergence and development of environmental awareness and to show beneficial behavior towards the environment. In other words, it is not right to make generalizations about the attitudes towards environmental awareness and the fact that individuals with high environmental awareness show environmentally friendly behaviors.

As a result of the research findings, it was determined that conservative secondary school students had a higher level of environmental attitude and environmental knowledge than the beneficial behaviors they showed for the environment. Also, attitudes towards the environment and the high level of environmental knowledge are not enough for the students to show beneficial behavior to the environment. In short, it has been determined that attitudes and knowledge levels towards the protection of the environment are not very effective in the positive behavioral development of the students. Conservatory students have not turned their knowledge and attitudes towards their surroundings into behavior in their own lives.

## **Recommendations**

Based on the results obtained, the following suggestions are made:

- Environmental education for the emergence and development of environmental awareness in students can be given in the classroom environment as well as in the natural environment. Thus, students will receive environmental education in which cognitive, emotional and psychomotor learning will be realized and will have environmental awareness in this way.
- Environmental education should start to be given at a young age. Because there is a lot of research on the attitudes, knowledge and behaviors that have taken place at a young age affecting the future life of the individual permanently (Erten, 2003).
- Parents and friends (peer) groups should be included in the activities in order to increase the awareness level of the students about the environment and it should be ensured that the sharing of the environmental problems is realized in the students' homes (Karaismailoğlu, 2018).
- Teachers, who have a very important influence in the environmental education they receive, need environmental awareness to be able to train effectively. This may require teachers to take environmental awareness courses both in undergraduate and in-service training.
- Students should be provided with opportunities to follow environmental news to increase their environmental awareness (Karaismailoğlu, 2018).
- In future research on environmental awareness, sustainable education and environmental education in general, researchers will be able to plan more detailed research on knowledge, attitudes and environmentally friendly behaviors, and determine what conditions are required for attitudes and knowledge to turn into environmentally friendly behaviors.
- In order for the students to gain useful behaviors towards the environment, competitions, seminars, participation in activities can be provided.
- Students can use green boxes or eco-friendly event packages. environmental education based on environmental activities should be given to face the problems in order to create environmental awareness and to increase environmental awareness (Candan and Erten, 2015; Karaismailoğlu, 2018).

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