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COMPARISON OF ENVIRONMENTAL THOUGHTS OF DOMESTIC AND INTERNATIONAL STUDENTS LIVING IN NORTHERN CYPRUS

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Abstract

The aim of this study is to identify the environmental knowledge and the environmental awareness level of the university students. With this aim it is considered to compare the thoughts and the point of views between the international and domestic students' environmental knowledge about North Cyprus. The case study has been used as a design of the study with qualitative research method. This study was conducted with 42 students from a university in Northern Cyprus. The sample has been stated in two groups; the international students group that composed from 21 international students from different countries and the domestic students group that composed from 21 students from Northern Cyprus. The research data were collected through interviews. Content analysis was used as a data analysis technique. Research findings show in general that the international students have less environmental awareness from the domestic students. In the light of the answers of the students and the results of the study, it has been suggested that the basic solution for creating a good environmental consciousness is environmental education.

Keywords: environmental education, environmental awareness, environmental knowledge, Northern Cyprus

1. Introduction

The world was created within specific limits, but because of human natural resources usage led to the presence of many environmental problems affecting human life and health. One of the biggest mistakes that have been made is incorrect behavior caused environmental pollution (Parker, 1968). Environmental pollution has caused many natural disasters, soil and water pollution, ozone depletion and global warming for all living organisms, and even changed the melting maps (Dunlap et al., 1992). Nowadays, after all these problems have occurred, the country's governmental and non-governmental institutions are beginning to work for a sustainable and healthy environment representing conferences, research and educational processes (Shiyi, 2010). After the industrial revolution, the concept of the environment was acquired, the reason being the increase of environmental pollution from factories during economic growth in the 1950's, and thus environment and environmental issues became an important issue worldwide (Tankut, 2005).

The concept "environment" has been defined by many authors in various ways. Marshall and Bottomore (2000) defined the environment as ambient or concluding objects. Tankut (2005) stated that the environment is the integration of physical, chemical and biological components to influence living organisms. In support of this another source defended the environment that is the surrounding things where living and nonliving life (DPO, 2006). On

the other hand, Diekmann and Franzen (2019) describe environment that has two main components (living and non-living components), the non-living component such as rocks, water, air, etc. and the living component using the non-living component components to live.

As a term, the environmental issue is a more comprehensive term than environmental pollution. Therefore, the term environmental issue includes many serious environmental pollution aspects (Erten, 2004). Environmental issues have been explained in many types of pollution. Water pollution is the mixing of foreign elements with those that change their physical or chemical properties (Erten, 2005). Soil contamination is the change of soil properties (water saving, fertility, erosion, etc.) due to the entry of exotic elements (Keleş & Ertan, 2002). Air pollution is the pass of any pollutant that affects air quality and its chemical or physical properties. This problem has many respiratory effects and is associated with many serious diseases (WHO, 2006). Noise pollution has been defended as any annoying sound that affects human hearing (Tankut, 2005). Pollution is a global problem that has arisen due to population growth as well as increased industrial process (DPT, 2001-2005).

Environmental education defended “the educational process of individuals by acquiring the necessary information and skills and increasing their motivations and attitudes to put forward ideas on solving environmental problems and environmentally friendly behavior” (UNESCO, 1978). Environmental education aims to raise the environmental awareness of all human beings to be environmentally friendly (Kiraz & Fırat, 2016). From literature, a literate individual can be well versed in the interaction between the environment and hostile systems, despite the belief in human unity. There are four conditions for environmental education: knowledge, attitude, behavior, and awareness (Erkol et al., 2010; Koç & Karatekin, 2013).

In their study titled “Report on the attitude and behavior of students from Libya and Turkey studying at universities in Cyprus on environmental concerns”, Aslanova et al. (2017) stated that the following principles are the most important principles of environmental education:

- Environmental education must be long term.
- Historical and cultural dimensions should be considered as an important point.
- Environmental issues should be considered an important issue during development.
- Environmental literacy relies heavily on awareness, attitude and skills, and therefore this important component should be taken as part of the education process.

In 2000, Bahar conducted a research study entitled “The level of prior knowledge of university students about environmental education misconceptions”. The study showed that participants are familiar with the ozone layer and the greenhouse, but often have misunderstandings about the environment and its components. On the other hand, Gündüz and Bilir (2012) conducted a study entitled “Study of the position of high school students in Northern Cyprus for environmental education and water conservation” to measure water conservation and environmental education. The study found that the students claim water protection education in addition to environmental education.

After researching related fields, it was decided to carry out this study in order to contribute to the literature on behalf of environmental education and environmental protection. The aim of the study is to identify the environmental knowledge and the environmental awareness level of the university students, and to compare the thoughts and the point of views between the international and domestic students’ environmental knowledge about North Cyprus. With this aim, it is tried to find the answers for these sub-objectives:

- How is the environmental awareness of the students?
- How is the environmental knowledge of the students about North Cyprus case?

- What do they know about the effects of environmental pollution?
- Which solutions do they suggest to avoid the environmental pollution in North Cyprus?

The starting point of this study was the perception of environmental problems in the Northern Cyprus by the foreign students who came to study in this country. In this context, the comparison of foreign students' and local students' perceptions of environmental problems came up. In this respect, this study can be considered as a valuable study comparing environmental literacy between domestic and international students. This study also determines the environmental awareness of students from different countries. In this study, the sensation of environmental problems between the students coming to the country temporarily and the students living in the country is tried to be determined. In the literature review, no qualitative study has been found that objectively evaluates environmental problems of a region by foreigners. Therefore, this study is expected to support the relevant literature.

2. Methodology

2.1. Design of the Study

In this research, qualitative research method has been used. Qualitative research studies the human attitudes that depend on analyzing the narrative data to make an interpretation of the meaning of these attitudes (Forbes, 2002). In this research, it is aimed to determine and compare the thoughts of the students about the environmental situation in Northern Cyprus in detailed. It is considered that this method is suitable for determining, comparing and discussing the students' thought. The design of the study is conceived as a case study. Case study is a research strategy which focuses on understanding the dynamics present within single settings (Eisenhardt, 2007).

2.2. Sample

In this study, 42 students studying educational science in Near East University were interviewed; 21 from Northern Cyprus and 21 from other countries. Middle East, Africa, Syria, Palestine, Ukraine and Pakistan are mentioned with other countries. Participants were randomly selected on a voluntary basis from different departments. The participants have been living in Cyprus for at least one year and their ages are between 19 and 25 years.

2.3. Data Collection Tool

A structured interview form prepared by the researcher was used for this study. The structured interview form was formed by receiving opinions from four experts; one from the linguistics department, one from the science department and two from the environmental science department. This study has four questions for determining the environmental knowledge that the person has. The questions in the form were created to evaluate students' opinions about what they understand from the concept of environment, according to them whether there is environmental pollution in Cyprus, how environmental pollution affects life, and what can be done to reduce environmental pollution in Cyprus.

2.4. Data Analyze

The environmental thoughts of the sample have been processed by using content analyses. The content analysis is a research tool or technique that helps to analyze the actual content in all features. This method is widely used in qualitative researches (Hsieh & Shannon, 2005). Content analysis has many advantages over all research methods specially in filed researches and education researches. This analysis technique has advantage that sample should be

collected from different places in addition to the following up the results (Birmingham & Wilkinson, 2003). In this study, the data obtained were first coded and presented in tables by creating themes. The tables are supported with individual examples and “D” codes are used for domestic (Cypriot) students and “I” codes are used for international (from other countries) students.

3. Findings

In order to solve the first sub-objective of the study, the participants were asked “What do you know about the environmental issues?” The answers from students have been themed as “Protection” and coded under three keywords “Clean”, “Surrounding organisms” and “Tacking care”. Table 1, presents the results of the participant’s answers comparatively.

Table 1. *Environmental awareness of the students in Northern Cyprus*

Theme	Codes	N (International)	N (Domestic)
Protection	Clean	6	12
	Sustainability	11	7
	Tacking care	4	2

Table 1 represents the students’ environmental knowledge that has been expressed by using themes; “Clean”, “Sustainability”, and “Taking care”. Six international students have expressed their opinions by using “Clean” theme on environmental concept. On the other hand, 12 of the Cypriot student have mentioned that the theme “Clean” as a part of the environmental concept. For this theme the domestic student code D21 said “We should clean the surrounding environment to protect our health” and the international student I7 said “Everybody must keep the environment clean and safe”.

Eleven international students have expressed their opinions by using “Surrounding things” keyword on environmental concept; I8 said “The environment we live with, because we have to deal with these things for future generations”. On the other hand, seven of the Cypriot students have mentioned that the keyword “Surrounding things” as a part of the environmental concept. Exemplarily D13 said “Environment is a cycle where human beings and other living things live together and interact”.

Four international students have expressed their opinions by using “Tacking care” theme on environmental concept. For this theme I20 said “We should take care about environmental pollution like soil, water and air pollutions”. On the other hand, two of the Cypriot students have mentioned that the keyword “Tacking care” as a part of the environmental concept. In this theme D18 said “Tacking care of environmental problems can solve the main issues about environment”.

The results that have been taken from those answers show that the students have much information about the environment. But they don’t have detailed information about the environmental concepts. As the best example that can be taken theme, D15 expressed his idea as “The environment should be saved from different type of pollutants”. As an analysis for this sub-objective, the domestic students have more environmental awareness from international students about “clean environment”.

Under the light of the students’ responses in both participant types, the Cypriot students have more awareness about cleaning environment than the international participants. It is thought that these responses have been noted due to the admixture of the Cypriots with other

cultures. It has been recorded that the international participants have more sustainable awareness than the Cypriot participants. It is thought that the difference between education systems can give different results about sustainability.

In order to solve the second sub-objective of the study, the participants were asked “What do you know about environmental problems in North Cyprus?” The answers from students have been themed as “Pollution” and coded under four keywords; “Waste pollution”, “Air pollution”, “Water pollution” and “Noise pollution”. Table 2 presents the results of the participant’s answers comparatively.

Table 2. *Environmental knowledge of the students in Northern Cyprus*

Theme	Codes	N (International)	N (Domestic)
Pollution	Waste pollution	12	14
	Air pollution	13	18
	Water pollution	5	9
	Noise pollution	7	13

Twelve international participants out of 21 have expressed their opinion by using the word “Waste pollution”. As an example an international student code I20, expressed his idea as “There are a lot of trashes and industrial waste in different areas”. On the other hand, 14 Cypriot participants out of 21 have expressed their opinion by using the word “Waste pollution”. For example, D19 expressed that “Everywhere is full of dust and trash”.

Thirteen international participants out of 21 have expressed their opinion by using the word “Air pollution”. Participant I6 said “Air pollution, because there is a lot of car smoke”. On the other hand, 18 Cypriot participants out of 21 have expressed their opinion by using the word “Air pollution”. For example, D7 has expressed “Environmental problems about air pollution; smoke from vehicles affects our health negatively”.

Five international participants out of 21 have expressed their opinion by using the word “Water pollution”. Participant I21 has expressed “I can’t even taste the water. It’s much polluted”. On the other hand, nine Cypriot participants out of 21 have expressed their opinion about “Water pollution”. For example, D19 has expressed “The seaside and beaches have many dusts and the sea has many polluted things”.

Seven international participants out of 21 have expressed their opinion by using the word “Noise pollution”. For this question, participant I2 has stated his opinion as “Noise pollution, water pollution and air pollution are found in Cyprus”. On the other hand, three Cypriot participants out of 21 have expressed their opinion by using the word “Noise pollution”. For example, D9 said “There is noise pollution in Cyprus because of cars, factories, like these”.

Under the light of the students’ responses in both participant types, it is thought that the Cypriot students have more environmental knowledge than the international students. The domestic students have more information about pollution in North Cyprus. These results are thought to be due to the high environmental problems Cyprus has faced in recent years.

In order to solve the third sub-objective of the study, the participants were asked “How does environmental pollution affect your life?” The answers from students have been themed as “Damaging” and coded under two keywords; “Health” and “The weather”. Table 3 presents the results of the participant’s answers comparatively.

Table 3. *Effects of environmental pollution in Northern Cyprus*

Theme	Codes	N (International)	N (Domestic)
Damaging	Health	19	21
	Global warming	7	5

Table 3 shows that 19 of the international participants have mentioned that the environmental pollution make many health problems. 21 of the Cypriot participants have mentioned that the environmental pollution affects the human health. As an example I5 mentioned “The environmental pollution causes cancer diseases and many lungs diseases”. D16 said “It affects our health and cause diseases like cancer, asthma and Alzheimer, our psychology is also affected negatively”. Seven out of 21 international students’ participant have been expressed that there is a “weather changing” and that affects human life. I15 said “Air pollution affects our health, and affects the atmosphere and earth weather”. Five out of 21 participants mentioned that there is a weather change. D14 said “Environmental pollution affects all living things; it causes diseases and decrease the number of living things in nature and increase the global warming”. These answers show that all participants even from North Cyprus and from other countries have idea about the environmental problems and its affection on livings, health, life and nature.

Under the light of the student responses, it is seen that the environmental pollution affects human’s life on health and global warming negatively. According to the results, it can be seen that there aren’t any differences between both participant types. The results show that the idea about damaging gives close responses for participants. It is thought that the last climate changing that has been recorded and the increasing of temperature average in these days effected people’s mentality about environmental pollution.

In order to solve the fourth sub-objective of the study, the participants were asked “In your opinion what should be done to decrease the environmental pollution in North Cyprus?” The answers from students have been themed as “Responsibility” and coded under two keywords; “Personal activities”, and “Environmental education”. Table 4 presents the results of the participant’s answers comparatively.

Table 4. *Solution offers for environmental pollution in Northern Cyprus*

Theme	Codes	N (International)	N (Domestic)
Responsibility	Environmental education	19	21
	Personal activities	8	10

Table 4 expresses that 19 of 21 international students have mentioned that the environmental education is one of the best solutions for environmental issues. I16 said “We should change our attitudes and should start being environmentally friendly, and we should have a book that should be given from primary school until the high school”. Similarly, D20 expressed his opinion as follows: “The inheritance of the environment to the future is about how we use it. It is possible to educate individuals who are sensitive to the environment through environmental education. Environmental education should be given more importance in schools and environmental protection trainings for adults should be prepared”. Eight out of 21 international participants have mentioned that the personal activities can be a solution for the environmental pollution. I3 said “We should not throw the rubbish on the ground, and

stop hunting". 10 participants from the Cypriot sample have mentioned that personal activates is one of the most important solutions to avoid the environmental pollution and decrease it. D1 mentioned that "We should use the safe agricultural practices that prevent water and air pollution".

Under the light of the students' responses in both participant types, it can be said that the solution offers about environmental pollution in North Cyprus shows similarity. The students recorded that the responsibility can be a solution for the environmental pollution. It is thought that this responsibility can be gained by environmental education which should be added to the program from pre-school.

4. Discussion

According to the descriptive result of this study, the students indicated positive environmental awareness. Otherwise, consistent with the previous literature with university students were found at a low level of awareness and sensibility about environmental problems (Kahraman et al. 2008; Özdemir et al., 2004). This result shows that, the awareness about environmental problems increase over time.

In 2003, Wong has conducted a research titled "The environmental awareness of university students in Beijing, China" that aims to measure the environmental awareness and the situation of environmental problems. The results show that the university students have a good background about the environmental concepts and they have a good awareness about the environment. In this study, it is stated that there are courses about environmental education in Beijing education system and it is emphasized that this positive result stems from education. On the other hand, in this research that has been conducted in North Cyprus which compare the environmental awareness and the situation of environmental problems between the international students and Cypriot students, it is determined that the knowledge and the awareness are not as high as expected. The lack of environmental education was felt with this result.

Şama (2003) has found in his study that the participants have mentioned that the environmental pollution can be solved by activities that can be organized personal or governmental. In this study the participants have added that the environmental problems can be realized by the environmental activities. Thus, the idea of "reaching more audiences and creating differences in the environment" was developed.

Al-sayed (2006) have been noticed in his research that the environmental awareness can be increased through the environmental education. This study shares the same idea with Al-sayed's idea. It is thought that that the environmental education is the most efficient solution to prevent the environmental problems and the environmental education can increase the individuals' awareness toward environment.

5. Conclusion and Suggestion

This research studies the comparison of thoughts about environmental awareness in North Cyprus between international students and the domestic students. The result shows that the most of the students have the environmental awareness. University students describe that the protecting the environment from damage is important and should be activated in their daily activities. University students demonstrate measures to protect the environment by saving energy, reducing plastic use more than one time, using plastic alternatives such as a paper, using cloth bag, recycling materials by manufacturing processes. The students explained that the environmental pollution in North Cyprus is representing on air pollution, water pollution, waste pollution and noise pollution.

An environmental curriculum should be added to the school's teaching plans, and a special curriculum should be added as a mandatory course at the university to increase student awareness and introduce all students to environmental concepts. Creating a specialized field workshop to explain how affection comes from and how it can affect the environment can be support environmental education for people. In addition, policymakers can stimulate clean technological entrepreneurship through indirect tools. Sine and Lee (2009) explains that the effectiveness of public policies in stimulating entrepreneurial growth by companies in the renewable energy industry depends on prevailing social standards (such as consumption standards and cooperation rules). Specifically, they can promote the dissemination of scientific and technological knowledge by universities and companies based throughout the regions. They can support the creation of this knowledge by appropriately stimulating universities and innovative companies. They can increase the environmental awareness of people residing in an area through actions that promote environmentally sustainable lifestyles and sustainable business practices. It is thought that, these actions are crucial because they can increase the impact of environmental policies.

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