NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES
ENVIRONMENTAL EDUCATION AND MANAGEMENT
MASTER PROGRAM

COMPARISON OF GENERAL VIEWS ON ENVIRONMENTAL CULTURE AND SUSTAINABLE ENVIRONMENT OF UNIVERSITY STUDENTS IN NORTHERN CYPRUS AND PALESTINE

Master Thesis

SUBHI AHMAD MAHMOUD SALMAN

Nicosia, 2020

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Thesis Supervisor: Assoc. Prof. Dr. Aşkın KİRAZ

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DECLARATION

I, Subhi SALMAN confirm that the work for the following term paper with the title: "**Comparison of general views on environmental culture and sustainable environment of university students in Northern Cyprus and Palestine**" was solely undertaken by me and that no help was provided from other sources as those allowed. All sections of the paper that use quotes or describe an argument or concept developed by another author have been referenced, including all secondary literature used, to show that this material has been adopted to support my thesis.

Subhi Ahmad Mahmoud SALMAN
Environmental Education and Management
Nicosia, 2020

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ABSTRACT

COMPARISON OF GENERAL VIEWS ON ENVIRONMENTAL CULTURE AND SUSTAINABLE ENVIRONMENT OF UNIVERSITY STUDENTS IN NORTHERN CYPRUS AND PALESTINE

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The aim of the study is to determine and compare the environmental culture and environmental sustainability level between the students of Near East University and Al-Njah National University. In this study the qualitative research method has been used that judging the quality of the study. The design of the study is causal comparison pattern that seeks to find the correlation between the independent and dependent variables of the research. Ninety eight students has been taken as study sample that represented by 50 students from Al-Najah National University and 48 students from Near East University which have been taken randomly and homogenously. The data have been collected by using the direct face- to- face interview that considered as key qualitative data collection that it describes and analyses the research problems without limiting. The data have been collected and analysed by using theming and coding. Some data was analysed using SPSS software and some data was analysed using pie graphs. The main result that have been founded that Al-Najah National University participants' feel more comfortable toward the environmental culture, otherwise the participants' of Near East University feel more comfortable toward the environmental sustainability.

***Keywords*:** Environmental education, environmental culture, environmental sustainability, North Cyprus, Palestine.

ÖZET

KUZEY KIBRIS VE FİLİSTİN ÜNİVERSİTE ÖĞRENCİLERİNİN ÇEVRE KÜLTÜRÜ VE SÜRDÜRÜLEBİLİR ÇEVRE HAKKINDAKİ GÖRÜŞLERİNİN KARŞILAŞTIRILMASI

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Bu çalışmanın amacı, Yakın Doğu Üniversitesi ve El-Njah Ulusal Üniversitesi öğrencileri arasında çevre kültürü ve çevresel sürdürülebilirlik düzeyini belirlemek ve karşılaştırmaktır. Bu çalışmada nitel araştırma yöntemlerinden yararlanılmıştır. Çalışma nedensel karşılaştırma deseni ile yürütülmüştür. Katılımcılar El Najah Ulusal Üniversitesi'nden 50 ve Yakın Doğu Üniversitesi'nden 48 olmak üzere toplamda 98 öğrenciden rastgele ve homojen olarak oluşturulmuştur. Veriler, araştırma problemlerini sınırlamaksızın tanımlayan ve analiz eden nitel veri toplama yöntemlerine uygun olarak doğrudan yüz yüze görüşme yöntemi ile toplanmıştır. Veriler toplandıktan sonra tema ve kodlama kullanılarak analiz edilmiştir. Verilerden bazıları, pasta grafikler kullanılarak bazıları ise SPSS yazılımı kullanılarak analiz edilmiştir. Çalışmada temel olarak NNU öğrencilerinin çevre kültürüne karşı daha duyarlı oldukları, NEU öğrencilerinin ise çevresel sürdürülebilirliğe karşı daha duyarlı oldukları tespit edilmiştir.

Anahtar Kelimeler: Çevre eğitimi, çevresel kültür, sürdürülebilir çevre, Kuzey Kıbrıs, Filistin.

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INTRODUCTION

1.1. Problem Statement

The consequences of human actions on nature and environment started to expand and show up remarkably after World War II and continued due to man's exploration, exploitation, and inventions. The 1950's marked as an industrial revolution era and witnessed significant inventions in different fields of endeavors/discipline (Dunlap, 2012). It was the beginning of significant ecological changes/damages (Armiero & Sedrez, 2014). During this period, the resources wasting started, and it was the period of a nuclear weapon employed in wars. Moreover, the side effects got even worse after the war started, and these environments-unfriendly tools were even used in regular day to day life. At that point, usage has in like manner been extending in parallel with the human population growth (Montrie, 2011). Numerous factors like the usage of fertilizer in cultivating, extending the utilization of manufactured inventions to obliterate bugs and plants and growing, the use of the motor vehicles in transportation and development has accelerated the destruction of the earth (Savci, 2012).

Environmental challenges started at the end of WWII with the advancement in science and technology. Manufacturing, inventions, and scientific discoveries, the quest for knowledge, and the insatiable quest for wealth all set the platform for rape of the environment (Hardoy, Mitlin & Satterthwaite, 1992). However, despite the damages that have been recorded by man's actions on nature/environment, nature found its own ways of healing itself. Nature has been so kind and supportive to man since his early days, sadly latter has not been fair to the former, man is constantly ripping, encroaching, exploiting, and taking all sorts of actions that are harmful to mother earth (Gardner & Stern, 1996). The harmonious relationship that man once enjoyed with nature started to fall apart in the wake of World War II into the industrial revolution era and continued since then (Armiero & Sedrez, 2014).

At first, man's concern was not much and not harmful to the environment, it was just the basic concerns of life; food, shelter, and clothes, and this was followed in a very

balanced way (Peterson, 2001). But over the years, man has been able to conquer these concerns and set his quest to cross his limit and destroy nature for his leisure (Schell, Gallo, Denham & Ravenscroft, 2006). This inordinate quest/ambition has posed and still posing serious challenges to man's survival, man's quest to take control of all the nature has pushed him so far to use and abuse the nature limitlessly. This lame ambition and exploitation have exceeded the regeneration rate of nature due to man's daily exploitation of her (Erdoğan, 2003).

The environment has defended as the relationship between the living and the non-living components (Markert, Breure & Zechmeister, 2003). Human is one of the environmental problem's causal that represented in many world problems like global warming, and deforestation. The entire world nowadays is trying to solve those problems (Van Klinken, Richards & Hedges, 2002). Therefore, environmental problems are classified as one of the most significant difficulties for humankind. Those entire problems have happened with industrial, technological development that caused serious damage to nature and natural resources (WCED, 1987). The environmental issue was classified as one of the most important problems in this era and it should be taken as a serious case, and humankind should start protecting the environment for the next generations (Scheffe, 1953).

The environmental education (EE) has been defined as it's an interdisciplinary approach that aims to affect the environmental culture and literacy of individuals by giving them awareness about the environmental issues (Coyle, 2005), according to Hafezi, Shobiri, Sarmadi, & Abass (2013) environmental education has been defined as "A process that makes solutions for the misunderstanding of the relationship between the human and the environment. Yellowstone National Park oil spill is an example of the human issue with the environment, economy, and society (Steinfeld, Gerber, Wassenaar, Castel & Rosales, 2006). The status that human caused environmental damage that affects the other organisms' life .As a result; the environmental issues have become an important issue in 21 century (UNCED, 1992). According to Stevenson (2007), the EE should be attached to all educational levels from primary school until college, which leads individuals to be sensitive toward the environment, and their attitude and awareness will be environmentally friendly (Smyth, 2006). Moreover, the relationship

between organisms and the environment should be the main concern in the education system that strengthens the environmental culture for individuals (Salmani, Hakimzadeh, Asgari & Khaleghinezhad, 2015).

The education for sustainability is one of the impertinent approaches that have to include the economic, environmental, and social systems which aim to find a way to meet human needs in the future and affect the human culture and attitude positively (Waheed, Eraky, Ejaz, Khanum & Naumeri, 2019). The period 2005-2014 has been called the education for sustainable development from nations and agencies, like the United Nations. One of the aims of this period is to increase the world's culture on sustainability. The sustainability for the environment is an important approach that has included many perspectives to save the environment and natural resources for the next generations (Clark, 2007).

According to De Le Vega (2006), environmental education can change the culture of society and affect their culture components that represented five components (knowledge, awareness, attitude, behavior and responsibility). The Environmental Education is considered a main solution to increase the individuals' Environmental Culture (UNESCO & UNEP, 1993). Moreover, if people's environmental culture has been improved, they will be more responsible for environmental problems (Fahlquist, 2008). In the light of those studies, the problem concerning this study is titled "What is the environmental culture and environmental sustainability level that the students have at Al-Najah University and Near East University?"

1.1.1 Sub-problem

In light of this aim, these sub-objectives will try to solve:

1. What is the "environmental culture" level of the students both in North Cyprus and Palestine?
    a. How is the students' awareness about environmental attitude?
    b. How is the students' awareness of environmental knowledge?
    c. How is the students' awareness about environmental skills?
2. What is the "sustainable environment" level of the students both in North Cyprus and Palestine?

1.2. Aim of the Study

The aim of the study is to determine and compare the environmental culture and environmental sustainability level between the student of NEU and NNU. Furthermore, the study will obtain the environmental culture along with its three main components. It is also aimed to determine if there is any relation between a sustainable environment and environmental culture and the student demographic in term of demographic aspects such as gender, and monthly income, or not.

1.3. Importance of the Study

The world will be damaged less if the awareness level of humans increases, so the world age will be increased with the environmental awareness-raising for the next generations, which indulges the concept of environment in education. The environmental education importance concentrated on how to solve environmental problems. It's one of the most important solutions. Therefore, environmental education is a process to raise human knowledge, skills, and attitude (culture) toward the environment (Gezer, 2006). Most of the environmental issues result from human irresponsibility culture (Bradley, Walıczek, Zajıcek, 1999).

After going through the literature conducted in this research, it was noted that this research has a different type of environmental education cases and this type of researches had never been conducted before. In consequence of that, the thoughts and arguments within this research are going to be a model for other researchers, and will be useful to determine the student's environmental awareness.

1.4. Limitations

The limits mentioned below are all the limits that conducted from this research:

- The study is limited to the student of NNU and NEU that they are studying at these universities in the 2019-2020 academic years.

- The study is limited to 100 students that divided to 50 from NNU, and 50 from NEU to conduct the research results.
- The resources of this study are limited to that one that the researcher found.
- The Ph.D. students and master students' numbers are very low in NNU.
- It was a big limitation to find Cypriot student as a study sample target.

1.5. Definitions

Environment: it's the surrounding around is and this includes biological, social, cultural, legal and physical settings, and it has a relationship with human and human life (Kaya, & Elster, 2019). Yates, Reefer, Robertson, Hubbard-Sanchez, Huss and Wilder (2019) have defined the environment as "a multi-disciplinary unit composed of non-living and living factors."

Environmental attitude: it's a psychological goal that can be expressed by evaluating the environmental behaviors toward the environment (Milfont & Duckitt, 2010).

Environmental awareness: it is the concern toward the environment and the environmental problems, and having information about the environment and the environmental problems without having it on digitals (Roberta, 2009).

Environmental culture: the environmental culture has three main concepts that are combined together to make it meaningful namely environmental skills, environmental acknowledge and environmental attitude (Abbe, 2009).

Environmental education: it's a luring process that aims to increase the human skills, attitude and knowledge that affects the human awareness and culture toward the environment and the environmental problems, not only that but is also aims at making people aware of the danger of health problem on human life and health (Stapp, 1969).

Environmental knowledge: it is the knowledge of how to overcome the environmental problems as well as improving the environment and information about nature and natural resources (Erten, 2005).

Environmental skills: it's the human behavior toward the environment (Milfont & Gouveia, 2006).

Sustainable environment: it's the good actions from humans and the high responsibility toward the environment and the natural resources (Milfont & Duckitt, 2010).

1.6. Abbreviations

NNU: Al-Najah National University.

NEU: Near East University.

CHAPTER II
LITERATURE REVIEW

2.1. The Environment

2.1.1 The environment definition

The earth is often referred to as the environment comprises two major components, namely: the living component and the non-living component (Cole, Elliott, 2003). Early 70's the concept of "environment" began to gain its popularity and usage among some scientist, this concept was conceived and believed to be simple and easy to understand and deal with, but the attendant increase in environmental challenges in recent times has forced one to look beyond a mere normal events but to view it as a complicated and compounded issue that demands utmost attention (Şahin & Erkal, 1999). Yucel (2006) adopts the same idea that the environmental challenges (mostly environmental pollution) started to be visible during and after the industrial revolution era, hence the concept "environment" began to call for attention and actions.

In recent times, the concept of environment has gained considerable attention; it is believed that this over lavishing attention on environmental discourse is because of the recorded situation of pollution, tear and wear in the environment caused by man which has also become serious threat to the existence of man himself and other living things (Bohdanowicz, 2006). Some school of thought believed that there is a correlation between technological advancement and pollution; some opined that the wave of economic growth that saw its emergence in the early 50's and continued till recent times and set the path for environmental pollution and degradation (Jules, 2016). The resultant effects of technological advancement and industrialization propelled by the desire for economic growth by some developed countries are felt in all aspect of the environment negatively by all; this negative effect is fast and widespread affecting all indiscriminately (Barca, 2011). postulates that the desire for scientific and technological development and economic growth by some major countries and world power countries is the root cause of the environmental pollution influencing all over the world has which has become a threat to the lives of all the living things (Yucel, 2006).

The dictionary meaning of the word “environment” is “something surrounding or enclosing” (Marshall, 2000). Erjem asserts that the environment is the whole of the physical, chemical and biological factors that have an effect on the lives of living things or beings in a definite habitat (Erjem, 2005). Simply, all the factors, affecting the lives of living things or beings, are their environment (Say, & Yucel, 2006). According to DPO (2006), the environment is the surroundings or circumstances where living or non-living beings live and maintain their vital activities. The environment is divided into two groups as living and non-living. As for the living environment is all the other living beings which affect, directly or indirectly, living beings and which share the same physical surrounding with them (Rose, 1990). On the other hand, the non-living environment is the concrete surroundings such as rocks, water, etc. in which the living beings/things maintain their lives or get support for its existence (Yucel, & Usluel, 2016).

Scientist classified and listed the living elements of the environment to include the living things such as the following: humans, plants, animals and microorganisms, While the non-living elements of the environment are; the non-livings such as air, water, soil, and also includes things created by man, such as; buildings, bridges, etc (Yıldız & Sipahioğlu, 2000). The environment of a living thing is the surrounding where it maintains all its biological, social, cultural and economic activities (Basal, 2005). An expansive classification of the environment according to (Yucel, 2006), there is also the classification based on humans. Yucel divided the environment into two groups; physical and social. The environment where all the living things live in and physically perceive their own being is the physical environment (Morin, & Orsini, 2014). The physical environment could be subdivided into two groups; natural environment which comprises mountains, seas, rivers etc. and artificial environment which is made up of man-aide creations such as cities, towns, dams, etc. Artificial environment is the creation of man and created in accordance with specific purpose (Withgott, Laposata, & Murck 2007).

Görmez and Yilmaz (2007) postulates that the environment is divided into two aspects: one is the natural environment which has not undergone any kind of change because there has not been any interference by the humans, and second is the artificial

environment which has been created by the humans within the natural environment for its utilization and to meet needs of man right from the beginning time till today. The environment as a whole is always in a constant and mutual relationship between living things and non-living things (McConnell, Loveless, 2018). Interaction with all the living beings as plants and animals, according to another definition, is a surrounding where humans maintain their social, biological and chemical activities (Keleş, & Ertan, 2002).

Tokay and Yüksel (2003), define the environment as "all the outer factors that leave a physical and social impact on the livings. The humans, the environment and society are interwoven with having close relationships with each other. Each of these domains is influenced and shaped by their interactions (Uzun et al, 2019). The environment is everything "whole of concrete beings" even energy (Tont, Tont, & Haragus, 2001). Humans are part of the environment and counted as a part of the living environmental part (Peterson, 2001).

2.1.2. The environmental issues

According to Maw (2019), he describes the environmental issues as the misusing and abusing of the natural resources which result in the degradation of the natural resources causing air, soil, and water pollution counted as the physical nature. Yearley (2014).The concept of "Environmental Issues" is a broader concept than the term "environmental pollution", Environmental pollution is an aspect of environmental issues. Therefore, the environmental issues include other degenerations except for the pollution. The environment is a set of relations; the relationship becomes a problem owing to the human use of actions that change the balance of nature (State Planning Organization, 2006) so when the environmental problem cannot be overcome and it makes degradation of the natural resources, it is regarded as an "environmental issue" (Dale, Newman, 2005). As EMS mentioned that nowadays mankind has many environmental issues and natural degradations that have been representing in air pollution, water pollution, soil pollution that caused the change of the climate that caused life loss. Humankind has diagnosed the problem and the causal, but they ignored it, which is considered an irresponsible attitude (Gitsham, Clark, 2014.).The researchers and scientists mentioned that if humankind continues with the environmental degradation practices the outcome

will be more missives, and this will increase the losses (Barker, 1968). Besides that, instead of taking environmental issues seriously, the developed countries are undertaking many practices that cause environmental problems (Barbour, 1980).

Scientists observed that with the help of science and technology, man began to seek to control and utilize nature as he desires. As a result, they broke the harmony in their relationship with nature. The wrath of nature on mankind did not come out of nowhere; instead, it appears as an accumulation and exploitation of degraded human actions (Klassen, McLaughlin, 1996). Hillary (2004) has mentioned that the nature is able to withstand miserable conditions for a period of time because of its ability to regenerate; however, as the level of abuse and exploitation exceeded the capacity of regeneration, environmental degradation began once air, water, and soil were contaminated. Albright (1990) has mentioned that nature overly affects all living organisms including plants which are a negative effect. It also affects the food chain and is, therefore, threatening their lives or survival. Bögeholz (2006) has mentioned that the rapid population growth and the increase in rural-urban migration and industrialization have caused proliferation and increased pollution. On the other hand, the dwindling of natural resources due to human behavior in the environment and increasing population is also a major factor in contributing to environmental issues. Some environmental issues are described below:

Water Pollution: Water pollution happens when undesirable harmful elements (detergents, pesticides, industrial wastes, etc.) mix into or with water at a measurable rate and at an amount which could harm the living beings. These elements mixed into the water causes physical, chemical and biological changes in water (Warren, 1971).

Soil Pollution: The physical and chemical properties of the soil can be changed in an undesirable way directly or indirectly. This is called "soil pollution". Soil contamination arises as moisture, being rocky, fertilizing and industrial degradations resulting from erosion, desertification and drainage deformations (Mirsal, 2008). It also appears when contaminated elements in the air and water contaminate the soil. Some industrial activities can cause soil pollution directly or indirectly (by polluting air and water) (Yaron, Calvet, Prost, Prost, 1996). Contaminated air or water reduces soil quality and fertility by degrading its physical, chemical and biological properties. In

addition, some toxic substances from various industrial activities accumulate in agricultural products and later transmitted to other organisms via the food chain (Notten, Oosthoek, Rozema, & Aerts, 2005). Various atmospheric pollution factors also because soil contamination through precipitation (rain, snow, etc.), are absorbed directly, and convert to sulfuric acid by dissolving in rainwater or soil solution, and lead to acidic soil. Washing of plant nutrients is made easier by acidification of the soil, and acid rain has caused significant destruction in cultivated areas and forested lands (Soriano, 2014).

Air pollution: The World Health Organization (WHO) defines air pollution as an increase in pollutants in forms of dust, smoke, gas, odor or water vapor in the atmosphere in amounts that can harm humans and other organisms. According to the World Health Organization (2006), air pollution means that pollutants that propagate into the atmosphere by a particular source degrade the natural composition of air and convert it into a tissue, which may harm organisms and nature. Pollutants are all substances that humans release to air directly or indirectly and that have a negative impact on human health or the environment in general. Air pollutants become harmful when they exceed the assigned amount (Jorquera, Montoya & Rojas, 2019). Air pollution can be defined as a venting effect on pollutants that occur through various human activities and cause pollution in the natural resource environment and as a result of causing harm to human health.

Noise Pollution: Das, Talukdar, Ziaul, Das, & Pal (2019) defined noise pollution as all unwanted sounds that disturb organisms. Noise pollution is a type of pollution that adversely affects human hearing, weakens the social quality of life of an individual and can be analyzed under two headings: internal and external noise pollution. Ozdemir, Bayramoglu & Demirel (2014) have mentioned that noise pollution causes physical hearing disorders of people; some research has revealed that noise pollution can speed up respiratory and cardiac problems in patients with this disease because it causes changes in body functions such as stress etc., mental behavior disorders, and performance problems (impairment Concentration, low productivity, etc.) and even serious brain damage.

Wastes pollution: Waste pollution occurs as a result of population growth, technological developments, industrialization, urbanization and diversification of

consumption at present, and is one of the most pressing environmental issues, due to its negative effects on the environment and human health (Sharma, Malik, 2019). As the population continues to increase and the standard of living increases day by day, the amount of waste also increases and its context changes (Minelgaitė, Liobikienė, 2019). According to reports of the State Planning Commission 2001-2005, waste appears as a result not only of consumption but also of production activities. These problems have become a major challenge or interest in how to address these environmental problems without causing further damage to the environment. Hilaly and Sikdar (1994) Have defined the waste pollution as it's the mass of pollution that produced by each individual.

2.1.3. The environmental concerns and its causing factors

A long time ago, human existence was supported by the environment. Revolutions in the agricultural and medical fields have put the human role in the environment at the forefront (Commoner, 1991). The major environmental problems we face today are rapid population growth, unplanned urbanization, urban air pollution, river pollution, inefficient distribution and consumption of freshwater resources (Maler, 1990), global warming, almost total destruction of natural life, and climate change resulting from the Carbon dioxide, ozone depletion, greenhouse effect from atmospheric gases, acid rain, increased chemical waste covering the coasts, the onset of extinction of various flora and fauna, nuclear pollution, and toxic waste And infections of mercury and desertification caused by low green fields (Brown, & Thérivel, 2000). Because environmental problems threaten all living things (biosphere, human) in the world and thus make them a "global issue", taking into account the idea that environmental values are a shared property (Anderson, Bateman, 2000). No country or state can claim that environmental damage only remains within their borders. They do not affect other countries and, likewise, they cannot prove that they or can move away from environmental problems occurring anywhere in the world (Boykoff, 2007). Ocean waters, ozone depletion, erosion, desertification, destruction of seas and forests, and the extinction of animals and plants affect all countries directly or indirectly. In this case, countries cannot deal only with their internal problems with the belief that they are

closing the doors on these global threats (Lake, 2019), and therefore the issue of the environment is a vital and fundamental global issue which is a common concern of all countries, which are committed to making joint decisions that relate to the right to life (Dickinson, Henderson-Sellers & Kennedy, 1993).

The causes of pollution, environmental degradation and deterioration of natural resources are believed to be a combination of rapid population growth and high sediment manufacturing in industrialized countries (Chowdhary, Bharagava, 2018). It is noted that environmental or pollution issues come from industrialized countries with a high rate of resource consumption and a high rate of waste production (Erdem, Kerman, Meric, Akarca & Ozsoz, 2000). Recently, environmental problems continue to emerge in disturbing dimensions and are increasing rapidly. Every new environmental problem affects humans and societies a little more (Kouloukoui, Sant'Anna, da Silva Gomes, de Oliveira Marinho, de Jong, Kiperstok, & Torres, 2019). The acceleration and development of industry and the increase in the world population caused the problem of nutrition, and increased production caused the consumption of nature very quickly. Moreover, the environmental balance has deteriorated by mankind that he cannot bear all this anymore (Auger, Bilodeau-Bertrand, & Smargiassi, 2018). The main cause of environmental problems and pollution is manmade. In a general sense, pollution is defined as a landfill from waste that nature cannot clean, and the impact of pollution changes according to the materials or groups of such waste (Zeng, Duan, Wang, & Li 2017). It is known that environmental concerns have not already emerged in the past, but at present, they have become a major concern (Keles, and Ertan, 2002). The main factor that caused the development of environmental problems is the rapid technological development that originated in the 1950’s and is still changing. Both processes, committed to each other, led people to use excessive natural resources by dramatically increasing human needs (Alvarado and Toledo, 2017). Moreover, the number, quantity, and variety of industrial products, technical tools, and social equipment increased; thus, consumption of human desire for consumption also increased incredibly. As a result, developments began to shake and destroy the lives of all living things; and made the world an uncomfortable place to live (Nuzumlali, Orhun, Öztürk, Cepel, & Polatkan, 2003).

There are two approaches to environmental problems, the first is that environmental degradation and the balance of the social system may usher in a new balance. Consequently, problems should be analyzed gradually as a system, and the integrity of the system should not overlap (Grimpe, Olsen, Sofka, 2015). The second is to agree to claim that environmental problems cannot be solved unless there are accompanied by mental revolution and attitude. Reform proposals will delay the solution. The common threat to both these approaches is to accept that the root cause of environmental problems is a mental problem (Dunnivant, 2017). This mindset is the idea of "enlightenment" that makes the human mind the only force to influence the development of modern science and technology, which enables the unlimited right of man to change nature (Tietenberg, Lewis, 2016). The prevailing concept of mentality suggests that "man is the source of all values"; "man has been created to produce and consume"; "production and consumption can be increased endlessly. “Because the aim is to increase happiness and welfare of humans, more development is required for this supposed happiness and welfare, and more production and consumption for the development (Zhang, Shen, Ding, Li, & He, 2016). It is also believed that natural resources are limitless if they are exhausted by events; it is believed that it is possible to replace the depleted resources using science and technology. Adapting nature to human desires and winning the challenge against nature are symbols of civilization and development (Goudie, 2018). It is accepted that the most important indicators of development are science and technology. All these features of mentality mentioned above indicated that modern paradigm is human-centered, and human, who has had or claimed the dominance role since the Enlightenment era, is able to unlimitedly change nature as they wish. One can conclude that this predominant, human-centered mentality with the above-stated features is one of the main causes of the disturbance of the natural balance (Demir, Makineci, & Yilmaz, 2007).

Concise factors that cause environmental problems, such as rapid population growth, unplanned urbanization, industrialization, and tourism cannot be steadily protecting natural resources either. These factors have prompted ecologists to ask the question "How does one affect the environment?" Whatever the definitions, and from any perspective seen or defined, the common point in all of this, is that the important

definitions are the environment? Is that there is a relationship between the environment and man? (Young, 2016). Although Diehl (2018) considers that natural presence can have effects on its own, it occurs additional times, changes in an ecological circle due to organisms' interventions and these changes generally affect the environment irreversibly. Scientific research has revealed that the main causes of environmental pollution are: unplanned urbanization, improper use of land, poor infrastructure of urban centers (such as drinking water, tap water and sewage system, lack of sewage and cleaning system) (Brisman, South, & White, 2016), lack of cleaning and recycling facilities for industrial waste, Uncensored agricultural activities, overcrowding, etc. of all, it can be said that humans are the main cause of environmental change. Therefore, it is important to give people appropriate education on the subject and important responsibilities about protecting that balance (Yücel, 2006). In emphasizing Yucel's assertion, he asserts that the most important step to educate humans and being responsible for their actions is to give them environmental knowledge (Yücel, & Morgil, 1998).

2.2. Environmental Issues and Sustainability

2.2.1. Sustainable environment development.

In the past, many scientists have proposed different definitions to define or describe what sustainability is. After the publication of the Brundtland report (1988), more than 100 alternative definitions of the concept of "sustainable development" and "sustainability, which are more detailed and sophisticated" were assumed. Walker (2008) mentioned that in the 1970s sustainability was discussed in political circles to question the effects of human activity and consumption of natural resources. Murcott (1997) Environmental problems such as habitat degradation, species extinction, ozone depletion, and global warming were the consequences of human behavior during the Industrial Revolution and its extension. The United Nations (UNO) used the term "sustainable development" to solve the competition between economic growth and environmental conservation. Sustainable development focused primarily on the current resource needs, but also the resource needs that will affect tomorrow (Gore, Katerere, & Moyo, 1992). Boras, Sala, Vázquez-Domínguez, Weinbauer, & Vaqué (2009) argued

that as a solution, sustainability suggests that economic growth and industrial progress do not necessarily conflict with environmental quality. In sustainability, the main argument is that to achieve the objectives of environmental conservation and economic and social improvement, working in a way to promote each other is the only solution. “Sustainability means continuing economic activity while promoting sound environmental management”.

In his expansionist work, Elkington proposed a framework called the Triple Bottom Line in his book "Cannibals with Forex", in 1998. This triple bottom frame is based on three basic and equal categories of impact. These categories consist of social, environmental and economic fields. The tripartite core framework indicates that business sustainability depends on economic, environmental and social resources. The origin of contemporary thinking about sustainability depends on the simultaneous coexistence of environmental, social and economic.

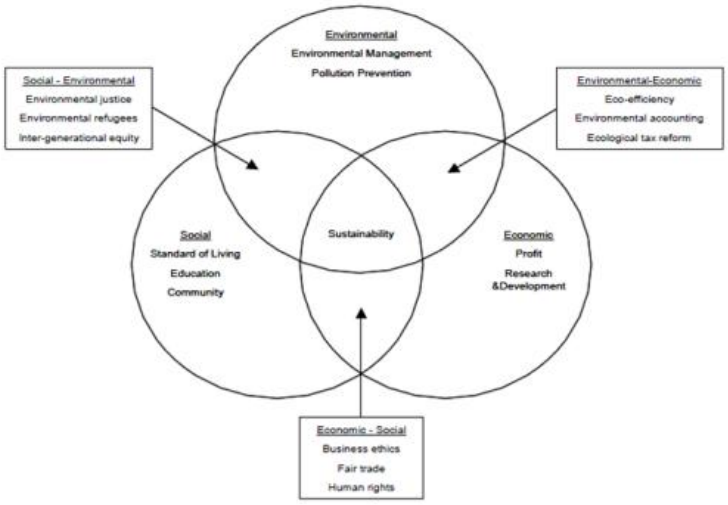

Diagram: Triple bottom line framework of sustainability (Rodriguez, 2002)

Sustainability is a concern for contemporary discourse, affecting the practices and attitudes of public, non-governmental and higher education institutions. Today, public interest in sustainability began to emerge in North America in the early 1970’s after the environmental crisis (Baland, Bardhan, & Bowles, 2018). Recognizing the threat of environmental degradation to economic development and social justice, sustainability has emerged as a motto to overcome these environmental challenges. The

sustainability of the environmental movement affects governmental and non-governmental organizations to be socially and economically responsible for the environment (Piecyk, 2015). Clujston and Calder (1999) The link between sustainable development and environmental education is closely linked to the phrase "our common future," which originated from the Brundtland report (1988). The phrase itself is not defined because it is intuitive but is frequently used in relation to green thinking. In discussing the future prospects of the Earth, Thomas Berry speaks of the need for a “sustainable human culture” (Berry, Metzger, & Chambon, 1990). Robert Allen, referring to the global conservation strategy of the late 1970s, noted that humans "are gradually reducing the planet's ability to support life" (Allaby, 1989). Clarifying the idea that we all live on this land, and therefore, we must be responsible for its care, is fundamental to sustainable development and environmental education.

These definitions may vary depending on the context depending on the formal, informal, governmental or non-governmental organization from which they are derived. However, most of them rely on the same basis. According to Gladwin (2001), this foundation has three principles:

- Continuous development depends on the availability of important inputs directly or indirectly. There are four categories of these inputs listed below: renewable environmental resources, such as food, timber, and services, such as UVB protection, wetland water filtration, and many other services provided by healthy natural ecosystems. Materials - human non-renewable resources - knowledge and means, including income, health, human rights, freedom, opportunity to apply that social knowledge - trust, reciprocity rules, equity, and other conditions that allow coordination
- There are limits to the availability of finite material resources and to the regenerative capacity, or carrying capacity, of ecological resources.
- Ecosystems, social and economic systems are complex and interrelated. As such, they are heterogeneous, dynamic, non-linear and adaptable groups of factors that influence their actions in each of the three areas (Karasozen, 2010).

In his detailed research work, Flint et al (2013) emphasizes that sustainability is linked to planning for the well-being of future generations by thinking about the past, and identifies three key areas for a truly sustainable way of life:

1. Economic Development and Equity: The current global economic systems require an integrated approach in a way that promotes responsible long-term improvement while ensuring economic justice among nations.

2. Conservation of natural resources and the environment: To protect the environmental heritage and natural resources of future generations, feasible solutions should be found in the economy to reduce the consumption of natural resources, prevent pollution and protect natural habitats.

3. Social Development: While meeting basic human needs (i.e. jobs, food, shelter, education, energy, health care, water, and sanitation), cultural and social diversity must be preserved, human rights must be respected and members must empower society to have a role in Determine their future.

2.2.2. The goal of sustainability

From September 25 to 27, 2015, heads of state and government and representatives of UN member states met at the United Nations Headquarters building in New York. During the celebrations of the seventieth anniversary of the establishment of the organization, they decided to set a new agenda and agenda 2030 and seventeen (17) of the global sustainable development goals. UN member states committed themselves to fully implementing all of these goals by 2030 and highlighted the greatest challenge of eradicating poverty, but especially with regard to extreme poverty. In accordance with General Assembly resolution 70/1, 2015, the document states that the United Nations approach to sustainability will take shape in three dimensions: economic, social and environmental aspects of sustainability (Resolution, 2015).

The focus was on how no such agreement was reached in the history of the organization and promised that no member would be left to define the global scope of goals. With this broad scope and the number of goals more than doubling, the decision was taken on how to implement the agenda if it had any opportunity to achieve it by 2030. In this regard, the primary focus is on the global solidarity movement, which means that cooperation and assistance between members will provide nations.

The United Nations and the United Nations are the basis for implementation. This “global partnership” is defined by the goals of implementing Goal 17 in addition to

other sustainable development goals and the decision refers to the Final Document of the International Conference on Financing for Development that was held from 13 to 16 July 2017 as guidelines for appropriate policies and procedures that can Ensures the achievement of the SDGs in a timely manner (Ielsen, Plejdrup, Winther, Nielsen, Gyldenkærne, Mikkelsen, & Bruun, 2017). However, the partnership is not just about financing. It will also include human capital development, transfer of technologies, and highlighting important contributions of the public and private sectors (Ielsen, 2019).

When considering how to measure progress, each of the 17 SDG's is said to have specific goals that define success criteria. These individual goals will later be determined by a subset of the indicators; each count is expressed as a quantifiable, numerical value. It has been stressed several times in the document that each Member State of the United Nations will be solely responsible for its social and economic development, and therefore this importance must be attached to national policies and strategies. As an institution, the United Nations is committed to respecting the policy space of each country, and for this reason, its enabling work focuses on providing a supportive economic environment through the global partnership mentioned above. In addition to the Addis Ababa conference, references to the Istanbul Declaration and Program of Action, the accelerated course of action for Small Island Developing States (SAMOA), the Vienna Program of Action for Landlocked Developing Territories for the decade 2014-2024, and the International Telecommunication Union Agenda 2063 and the New Partnership for Africa's Development were prepared (NEPAD) for this purpose (General Assembly Resolution 70/1, 2015).

2.2.3. The UN decision to engage the sustainability in education

In December 2002, the United Nations Assembly passed resolution 57/254 that marked the beginning of the Decade of Education for Sustainable Development (DESD), which was a bill to take place between the years 2005 and 2014. UNESCO was charged with the responsibility of DESD to design programs and implementation plans. The main aim of the DESD was to make man face and understand the challenges of the present and look into the future to gather the necessary skills, knowledge, and tools to take an active part in their societies, to be mindful and respectful of the Earth and life,

and to be committed to sustaining democracy in peaceful societies without elimination (UNESCO, 2005).

The following are the methods designed to reach this purpose and were collected under three titles; incorporating education into sustainable development plans, promoting awareness on sustainable development, and achieving widespread media coverage of sustainable development related issues (UNESCO, 2006). The major challenges for these methods were given as extending beyond environmental education and providing education for sustainable development, taking stock of practices already in place around the globe, using different media platforms, and creating partnerships and harmony between and with various programs and initiatives (UNESCO, 2005).

In the end, the DESD final report of 2014, UNESCO evaluates the DESD. From the reports, it was gathered that education systems are a more encouraging discussion of sustainable development related issues, and the programs for sustainable development are highly incorporating sustainable development education plans (UNESCO, 2014). The report notes education for sustainable development has gained a wider audience in terms of engagement and partnerships with different countries politicians and various stakeholders, while at the same time local commitments have gained momentum (UNESCO, 2015).

In the field of education, embedding sustainable development in curricula and into mainstream learning environments has taken up speed, especially with higher education institutions taking whole-institution approaches increasingly (UNESCO, 2014). Educating for sustainable development has been found to support and promote learning-based pedagogical approaches, all the while it is being incorporated into formal, non-formal or informal education including applications in technical and vocational education and training (UNESCO, 2016).

Despite the 6 DESD having co-existed with the MDG's and have not been followed up by a similar global initiative, its implications for the way forward with sustainability education has important ramifications for higher education institutions even today. Challenges pertaining to the alignment of sustainable development and education stakeholders, the need for increasing institutionalization and more research

and innovation to prove the benefits of education for sustainable development still persist (UNESCO, 2014).

2.2.4. Sustainable environment as the problem solution

According to Klein (2002), sustainability plans can facilitate overcoming environmental problems using sustainable technologies that can save natural resources. The concept of sustainability suggests how to manage natural resources and environmental problems to obtain the least environmental impacts. These solutions are one of the most urgent solutions to maintain sustainability and save the depleted environment:

1. *Reduction*: Preventing waste in the first place is the most efficient waste management policy. Procurement policies that encourage minimal packaging of items purchased from stores and reduce the use of "stubborn disposable products" in on-campus food services are important to the campus waste reduction program worker. Moreover, consumer habits and campus community awareness of waste management are important indicators of waste reduction (Nazer & Siebel, 2002).

2. *Recycle used items*: The market for recyclables has grown over the past decades, and it continues to grow today. Research on waste management conducted by some environmental researchers revealed that achieving 59 successful reuse projects has cost critical cash to colleges. Through the implementation of recycling policies, some universities have organized sales of recycled materials, thus sending less waste to the landfill, always saving money that could have been used for disposal fees (Alam, 2011). Recycling simply means collecting old things and reprocessing these old items/resources / used in something new that can be used or used again. The recycled item can be reprocessed to the same type of item or something completely different.

Klein (2002) listed the following, where some items can be easily recycled: paper, cardboard, batteries, plastic, beverage containers (plastic, cans, glass), toner cartridges, yard waste, metal, wood, hazardous waste, tin, rubber, books, furniture, equipment and clothing are items that are constantly recycled. According to the UB Climate Action Plan (2009), a campus recycling policy was proposed in universities, and a green procurement manual should be developed and implemented so that the purchase

of recycled products can be increased in the university community which can reduce emissions associated with the extraction and processing of raw materials.

3. *Composting*: Wang (2009) indicates that food waste can be used as fertilizer and reuse material for landscaping and nutrition by planning the green space of the campus. In order to reduce financial challenges or reduce waste disposal fees, many universities and educational institutions around the world have adopted campus-wide fertilization projects as one of the ways to address financial and environmental issues. The composting initiative is a method that helps reduce the amount of waste sent to landfill.

4. *Reuse*: Reusable materials in a campus environment can reduce environmental and economic issues in the academic environment. Larsson & Fick (2009) argues that using both sides of paper before recycling; reusing food containers/containers for other purposes in campus cafeterias reduces waste and saves some money.

2.3 Environmental Education

2.3.1 History of environmental education

Not all concepts used in environmental education are simply or merely objective as most of the abstract concepts are based on images. Environmental education is full of concepts, some of which are difficult to articulate or define because of their structure. Reports indicate that the concept of "literacy about the environment" was first used by Roth in 1968. Disinger and Roth (2000) defined literacy about the environment as the level of individual knowledge and awareness of the environment. Later, other ecologists began to suggest their views on literacy about the environment. Meakin (1992) argued that literacy about the environment is the relationship between humans and society, in other words, a broad understanding of the environment by man. According to Orr, an individual, who has knowledge of the environment, will have a better understanding of the impact of science, technological culture and agricultural activities on the functioning of natural systems; thus making sound and informed environmental decisions that will promote environmental sustainability (Orr, 1900).

According to a research study conducted by Kışalioğlu & Berkes (2009) aiming to study different assessments about aspects that an individual should be informed about the environment. The findings revealed that the common issues stressed by respondents were; knowledge, attitude, and responsible environmental behaviors. Roth & Sotomayor (1992) in an attempt to gain more knowledge on the subject, he also decided to define the stages and levels of literacy about the environment as well as the sub-dimension of literacy about the environment. From this study, Roth (1992) discovered and stated that; he stated that literacy about the environment consists of 4 stages, which he explained as follows:

1. *Awareness*: A stage of consciousness is the stage at which an individual begins to gain awareness of the relationship between the environment and humans and how important this relationship is to sustaining life. Here the individual develops the cognitive and emotional power of the environment
2. *Anxiety*: At this stage, an individual becomes concerned about some environmental problems that occur as a result of the deterioration of the relationship between man and nature and human behavior towards nature.
3. *Understanding*: The stage of understanding requires the knowledge of individuals and their understanding of the results of the relationship between nature and humans today and in the future. From this understanding, one can provide practical solutions to environmental challenges, and useful decisions can also be made.
4. *Position*: At this stage, an individual uses his / her informed knowledge to change environmental attitudes among people. It educates people about the environment and their actions and thus influences their attitude in the right direction.

2.3.2 The concept of environmental education

Environmental education is a multidisciplinary and lifelong view aimed at increasing the world's population who have a broader understanding of the environment or nature and related issues and who have acquired learning in environmental education, ability, a good frame of mind, a positive rationale, individual and social commitment, a duty of it would contribute to responses to environmental challenges and prevent new challenges from occurring (Deans & Moselley, 2000). The environment is very multi-

dimensional nature, wide and complex, therefore, environmental education is also multi-dimensional, extensive and complex. For this reason, the concept of “environmental education” changes from an individual to another and from one organization to another. At present, there are different definitions of environmental education proposed by different scientists from different backgrounds (Rosen, 2018).

According to Winiwarter, Armiero, Van Dam, Dix, Eliasson, Holm, & Myllyntaus, (2004) "Environmental education can be referred to as developing environmental awareness throughout society, leading to individual behavioral changes that are environmentally sensitive, lasting and positive, protecting natural, historical, cultural and social aesthetic values and providing active participation in solving environmental problems. “Environmental education provides an idea to understand the environment, its roles and responsibilities and makes them aware of all the things that affect the environment as much as possible” (Uğurlu & Demirere, 2008). To protect the environment, it is a process of demonstrating environmentally friendly behaviors towards achieving positive as understood, raising awareness and informing people of environmental issues, provoking positive human behavior in relation to environmental protection, and educating everyone that the environment will be a better place to live harmoniously, if we take a more radical approach to end environmental pollution and another kind of negative activities that endanger it (MEF, 2007, Hayta, 2006; Solon, 2002). Environmental education is actually aimed at attitudes, behaviors and awareness of the environment.

Brundtland report (1988) identified some key areas of environmental education and helped integrate “environmental education” as part of the UN strategy to address “global environmental concerns for generations”. However, the conceptual background of the green movement goes back. Goethe looked at nature and natural phenomena from a holistic perspective unlike reductionism, which encourages an understanding of the interrelationship between nature components (Seamon & Zajonc, 1998). Rousseau challenged the early enlightenment assumptions of industrialization as progress, seeing proximity to nature as an increasingly sound idea, as well as recommending encouraging children to explore nature from a young age (Barry 2007; Riley 2001). Together with Goethe and Rousseau, Montessori supported the idea of guided exploration as an

educational model for sustainability. Geddes' ideas about whole-person education and linking learners to the natural environment helped to consolidate the fields of environmental education and studies (Palmer, Suggate, Bajd, & Tsaliki, 1998).

Environmental education was preceded by a growing global interest in environmental issues, with groups such as conservationists promoting environmental conservation education and legislative pressure (Disinger, 1983). Palmer highlighted different precedents and parallel disciplines such as nature studies, rural studies, environmental studies, urban studies, urban environment and conservation education (Disinger, 1983; Palmer, 1998). While some of these areas branch out from environmental studies, others simply emerge from the conviction that the natural resources upon which humans depend have been devastated and without increased awareness and education, the next generation will not be better than the current generation (Disinger, 1983). In the early and mid-1970's, environmental programs began to emerge in various countries such as the United States, the United States, Sweden, etc. (Gough, 2006). The first Global Environmental Education Framework comes from the UN Charter in Belgrade of 1975. Clearly, the awareness that environmental concerns were a global threat to the existence of man and other organisms, as well as to future generations, was a response and positive action in the right direction (Buckler & Creech, 2014).

According to Markinkowski, (2006), two important movements have an impact on the creation and development of environmental education. These movements are the environment and education movements. In line with these movements, natural and informal studies of 13 education and protection education have also emerged, which have contributed significantly to the development of environmental education. These educational movements have contributed significantly to the advancement of environmental education. Studies conducted, first at the local level, extended to global studies. "The UN Environment Conference, first convened in Stockholm in 1972, made this event environmental education of global interest. Since then, every June 5th has been dedicated to celebrating World Environment Day worldwide (Handl, 2012).

As a follow-up to the conference in Stockholm, UNESCO's Environment Office conducted a survey entitled "Resource Assessment for Environmental Education:

Requirements and Priorities of Member Countries" in 136 countries in 1975. The results of this study revealed that the environment was inefficient in quality and quantity. To address this inefficiency, the International Environmental Education Program (IEEP) was implemented in collaboration with UNESCO and the United Nations Environment Program (UNEP). Again, in collaboration with UNESCO and UNEP, the Environmental Education Conference was held in Tiflis in 1977, the first in this area.

2.3.3 Environmental Education Aims and Objective

According to the Tiflis statement, the principle was agreed that environmental education should be a kind of education that works with areas such as culture and economics; which continues in lifelong learning, adopts a multidisciplinary approach, provides the opportunity to use high-level thinking skills, and learn through experience - It provides a transfer of what has been learned to other people's guides. Two main aims of environmental education have been emphasized in most of the studies focused on environmental education. Erdoğan (2009) summarized these two aims i.e. (1) development of literacy of the individuals about the environment and (2) development of responsible behaviors towards the environment

After the Tiflis conference, the objectives, purposes, and principles of environmental education, were considered working documents by many countries during the educational program development process. As this was the first gathering of its kind, the first meeting on environmental education at the intergovernmental level, the decisions taken were considered global. Tiflis conference documents are still available at present, and the conference statement is usually based on the preparation of tutorials. The objectives and principles of environmental education adopted during this conference are as follows: Raising the awareness of economic, social, political and ecological solidarity in urban and rural areas, in addition to providing opportunities for all the individuals to obtain knowledge, standard of judgments attitudes, responsibility and skills required for protecting and improving the environment.

While the target group in environmental education is all individuals, the primary goal is to develop positive attitudes and behaviors about environmental protection

among all (Tombul, 2006). These purposes, identified at the Tiflis conference are as follows:

- *Environmental Awareness*: Haşıloğlu, Keleş, & Aydın (2011) argues that environmental education is to help individuals and groups gain awareness and gain knowledge about the environment and environmental issues. Environmental awareness has intellectual, emotional and behavioral dimensions. In other words, environmental awareness encompasses ideas including all decisions, principles and interpretations related to the environment.
- *Environmental Knowledge*: Good knowledge of environmental challenges helps an individual understand the basic concepts about the environment, understand human-environmental interactions and how to address the emerging environmental issues (Berkes, 1993).
- *Environmental Attitude:* It provides all individuals with an awareness of the level of judgments, participation and motivation to protect and develop the environment (Singh, & Gupta, 2013).
- *Environmental Skills*: Acquire the basic skills necessary to protect and resolve environmental issues (Hofmann, & Strietska-Ilina, 2014).
- *Participation:* Participate in environmental campaigns, using the knowledge and skills acquired about the environment to protect them (Eden, 2016).

In general, environmental awareness is defined as "the reaction of an individual or society against the environmental problem they face" (Sadik, & Sari, 2001). It is the sensitivity and attention of individuals to environmental problems. An environmental activist believes that individuals should engage in environmental knowledge and awareness from a very young age (Buckingham, 2017). The newer generations have been involved and raised as environmentally friendly from a younger age, the more secure our environment will be. Homes, communities and schools are the three main places where environmental education can be taught, all efforts in these places must be mentioned in a mutual relationship (Pérez-Rodríguez et al, 2017). Dincer (1990) argues that the protection of the delicate balance between the environment and humans is the responsibility of humankind. As environmental issues are disseminated on different platforms and media, more people will be informed about environmental issues (Dugas,

2018).). Balkan Akman (2017), however, believes that this will only be possible when environmental issues are handled with care and by seeking solutions rather than addressing their dramatic aspects only when an environmental disaster occurs.

2.3.4 The environmental education principles

In environmental education, there are many principles that must be followed to achieve the objectives of environmental education (Aslanova, Almarous, Alemari, Awida, & Sucuoğlu, 2017). Researchers have classified the principles of environmental education as follows:

- The environment as a whole must be addressed, consisting of elements such as natural, artificial, technological and social (economic, political, cultural, historical, moral and aesthetic).
- There must be a lifelong educational program on the environment, from the early childhood school level to all educational levels.
- All relevant parts of each discipline must be addressed through a multidisciplinary approach that will develop them all in a balanced and comprehensive manner.
- The environmental problems must be addressed from local to international levels so that students could have an insight into the environmental conditions in different geographic areas
- Historical and cultural aspects should be taken into account in addressing current and potential environmental issues.
- The importance and need of local, national and international cooperation in taking measures and finding solutions to environmental challenges should be emphasized.
- Within the plans made for the socio-economic development and growth by the government of states, due attention and plans for protection of the environment should be taken into consideration.
- Environmental awareness, knowledge and skills to produce solutions, and form standard judgments should be communicated in a manner applicable to all age groups.

- Be strongly on the side of environmental education and awareness in school at an early age, especially with regard to their community.
- Young people should learn to know the real reasons for seeking environmental protection.
- The complexity of environmental problems, and therefore the importance of critical thinking and problem-solving skills, should be taken seriously.
- It is important to use different environmental and educational curricula to teach/learn the environment from the same environment by emphasizing practical activities and direct experiences.

2.3.5 The culture concept from environmental view

In *Dawn of Human Culture* (p. 288), Klein, RJ, and Edgar, P. (2002), have talked about humans and human culture over hundreds of years. The book defended human culture as it's a set of some skills, attitudes and knowledge that can be gained from family, community, or educational institutions. Which is why Klein and Edgar come up with many suggestions to build awareness of environmental culture by building environmental skills, attitude and knowledge, which will increase environmental culture. Abbe, Rentsch, & Mot (2009) have mentioned that Culture relies on three key elements: skills, attitude and knowledge as shown in this figure.

Diagram: The culture-skills, attitude and knowledge relation (Abbe et al, 2009).

This diagram shows that the attitude, knowledge and skills are the main cultural elements that have been defined as:

Environmental Skills: Tiflis conference manifesto have mentioned that environmental skills are the ability to help individuals acquire understanding or knowledge to address environmental problems.

Environmental Attitude: Eagly and Chaiken (1998) see attitude as a human action toward the environment that can be evaluated as positive or negative.

Attitudes have 3 main components:

- Behavioral component: simply refers to human behavior towards the environment (Jorgensen, & Stedman, 2001).
- Affective Component: it refers to the human feelings and values toward the environment and environmental issues more than their beliefs or custom. The affective component has much influence on human attitude than the other components (Chaiken, & Baldwin, 1981).
- Cognitive Component: this component works affectively on personal believes and can be used to increase knowledge (Ragheb, & Beard, 1982).

Uzun, Gilbertson, Keles, & Ratinen (2019) stated that the human-environmental situation can be measured through self-reports, attitudes and interviews. For example, the measurement methods are the measurement method; Kimerling, Barker, Bruce, Brook, & Dunlap (2000) made environmental standards containing 15 articles to correct the environmental situation among society. Aslanova et al. (1986) conducted 128 different research studies to see if there is a relationship between environmental attitude and environmental culture. The findings of the study revealed that there is a relationship between the environmental situation and environmental culture.

Environmental Knowledge: Kim, Thapa, & Kim (2018) believe that understanding individual environmental problems depends largely on individual environmental knowledge and environmental education. Dsouza, Taghian, & Lamb, (2006) Environmental knowledge was divided into two categories: knowledge that includes the influence of individuals on the environment, and knowledge of the ability to reduce environmental problems. These three components (knowledge, skills and attitudes) together form an environmental culture.

2.4. Related Researches

Ragheb and Beard (1982) conducted a study to identify the impact and permanence of the project called "Natural Education in the Ihlara Valley (Aksaray) on environmental awareness, environmental attitude, opinion and behavior, the results of the research confirmed that the nature education program has effects on environmental awareness, attitude and behavior of individuals, and its duration.

Curry (1996) the aim of the study was to improve the environmental skills among 200 farms in Switzerland. More than 50% of the farmers have joined the environmental skills.

Kuhlemeier Van Den Bergh, & Lagerweij, (1999), in his research “Environmental Knowledge, Attitudes, and Behavior in Dutch Secondary Education” he has studded a secondary school student knowledge, attitude, and behaviors towered environment. This study has conducted as a governmental study in Netherlands that have taken 9000 of the secondary school students. The method that has been used is the mixed method. The study has used much type of questions to collect the data. The result was that most of students have environmental knowledge, attitude and a good behavior towered environment.

Bahar (2000), in his research study "The level of previous knowledge of university students in the field of environmental education and misconceptions" conducted on 200 university students; to analyze the level of students' knowledge about certain environmental concepts such as the ozone layer and the impact of global warming. This discovery reveals that most students either do not know or have the wrong information on the subject even when they took the "environmental science" lesson. The results also revealed that some of these students took the "Environment and Humans" lesson in high school.

Penn State Indicators Report (2001) has developed a tool. This research has been conducted in Pennsylvania State University that aims to identify the student opinion about the building sustainability. This tool has 4-point system to measure 33 indicators. The result was that more than 50% of the students have seen that the university buildings are sustainable.

Erten (2002) has conducted a research that discovers how student can gain the environmental attitude through class lessons. The study has taken 970 school students (7th, 8th and 9th graders) as a sample. The results that have been taken from this research from a survey that was associated with behavioral beliefs, it did not have a significant impact on behavior or attitudes. Knowledge from questions of normative beliefs has been found from schools, but the possibility of adapting knowledge in situations is low.

Görümlü (2003) has studded the environmental knowledge on a high school student. The quantitative research has been used and the content analysis was the study design. The study has conducted on a school student in Ankara. The result was that the student cannot answer the question that related to the environment and environmental issues, this result discover that the student knowledge toward the environment is very inadequate.

Jingliang, Yunyan, Ya, Xiang, Xiafei, & Yuanmei, (2004) has noted in the application of a survey on environmental awareness and level of knowledge, conducted in Kunming through 1404 secondary and primary school students. As result of the research the primary school students are more knowledgeable that the high school student, but they do not have sufficient knowledge of environmentally oriented practices. The students stated that they learned primarily through the media and secondly through teachers.

Dale and Newman (2005) focus on literacy in sustainability despite criticism that sustainable development is too normative, vague and ineffective as a focal point for the development of higher education curricula. The researchers claimed that the criticism raised was unfounded and unjustified on the grounds that the role of sustainability in education was misrepresented by critics.

Ozmen, Oosthoek, Rozema, & Aerts (2005), this study has been conducted in a Faculty of Health Service and Faculty of Medicine, School of Health, University of Manisa Jalal Bayar, the research aimed to find out the attitudes of university students towards environmental problems and factors affecting their attitudes. The study was conducted on 410 out of 742 students. The survey tool used included 24 questions, with the use of the "Environmental Attitudes Scale" to collect data. The results revealed that

65.0% of students claimed to be sensitive to environmental issues, but the results also showed that 84.9% of them did not participate, in any form of event organized by Environmental organizations.

Al-Natsheh (2006), the aim of the study was to identify the environmental attitude that the 6th grades have it in a primary school in Jerusalem. The study has taken 121 as a study sample. The results have been analyzed by using SPSS software. The result was that the students have a high environmental knowledge but a low environmental attitude.

Al-Zuobi (2007), aimed to identify the environmental attitude for the University of Islamic since in Jordan. The study has taken 80 students that have been collected randomly. The result was that (77.5%) of the students have very high environmental attitudes.

Murphy & Olson, (2008) on the "Minnesota Environmental Literacy Report", the aim of the study is to study the level of environmental literacy among the population of Minnesota. The study has taken 1000 participant as a sample. The research discovered from the research results environmental knowledge for the men is more than the environmental knowledge that the women have; but the environmental attitude for the women have been founded as higher than the men have.

The Americans start giving interest to environment and its issues on 1970s as a serious case (McCrea, 2006). In Europe, some studies have focused on college students, some targeted pre-service teachers, and faculty as a factor of change (Winiwarter, 2004). Since the beginning of the year 2000, various research studies on education for sustainable development and climate change has been undertaken and still taking place in Turkey (Erdogan, Marcinkowski, & Ok, 2009).

El-Salam, El-Naggar, & Hussein, (2009) have conducted many tests to measure the affection of environmental attitudes and environmental knowledge of primary school students on environmental education as a result of the education provided to them. The result was that that the environmental knowledge has been increased until 69%, and the environmental attitudes have been increased until 88%.

Bas (2010) conducted a study with the aim to investigate the effects of Multiple Intelligences strategy and traditional methods of instruction on elementary students'

environmental awareness knowledge levels and their attitudes towards the environment. The study has taken 60 students as a study sample from primary school student in Turkey. The study has been analyzed by using SPSS software. The result was that the intelligences instructional strategy activities were more effective in the positive development of the students' attitudes and their environmental awareness knowledge levels.

Gunduz and Bilir (2012) on the study "Attitude of High School Students in Northern Cyprus for Environmental Education and Water Conservation", aimed to identify the level of awareness of water conservation and environmental education of high school students in Northern Cyprus. The study has been taken 470 high school students that have been divided to 295 female, 174 male students. The research result was that the students have a high level of water conservation, in addition to a high level of environmental awareness.

Aslanova and Gunduz (2012) conducted a study to investigate the level of students' knowledge of environmental education in the Faculty of Biology of Baku State University. While checking students' knowledge levels, there was a significant difference between departments from a statistical point of view. While examining student responses to environmental problems under their management, there was no significant difference between them, and the correct response rate based on their performance was as follows: 60.1% belonged to biology students, 59.1% belonged to Earth protection students, and 57. 6 % Belong to ground structure students and ground inspectors. It was also noted that the correct answers from female students in the study were 59.05%, while the correct answers from male students in the study were 57.45%.

Eke, Dye, Wei, Slade, Thornton-Evans, Beck, Genco (2013) has aimed to identify the attitude and sensitivity of students towards the environment also to determine the factors that affect their attitude and sensitivity towards the environment. The study consisted of 554 students. It was discovered that the following variables such as class, gender and age influenced students' attitudes and sensitivities towards the environment.

Turan, Çimşir, & Uzunboylu (2019).has aimed to implement and develop an mobile application that support the sustainable development goals. The study has taken

62 volunteers that they are studying in Giresun University. The result was that 31 persons that have feel pleased with trying new environmental technologies that develop sustainability.

Nematpour and Habibzadeh (2019). With the research conducted so far, it has been observed that awareness of environment or advocacy for the preservation of environment has not well developed among the college students of Azerbaijan, Lack of "understanding and awareness of environment" in students and professionals of this branch poses a big problem for Azerbaijan. It is not possible to improve or protect the environment without creating an awareness of the environment. Therefore, it is a social responsibility to educate the public effectively in this matter. Specially obtaining these results from a research conducted among students majoring in biology have a significant meaning; because biological science is fundamental to the understanding of the environment.

CHAPTER III
METHODOLOGY

3.1 Research Design

This study has been used in the qualitative style method. The qualitative research method, according to Roberts (2006), is a research method and its outcome data are not in the form of numbers. Demarcq, Bunch, Creswell, & Eastman (1994) defended the qualitative method that it's an important method to study human behavior and understanding the social or human problems. The reason for using qualitative research in this study is as: the qualitative method has many characteristics of small population and a large number of variables Sogunro (2002). Hammarberg, Kirkman, & de Lacey, (2016) Qualitative research method used to search for views on a focused topic or, with key informants, to obtain background information or an institutional perspective; "in-depth interviews" to understand a situation. A small sample dissection that held to ask adolescents should use the qualitative method (Kirkman, Rosenthal, & Johnson, 2007). The qualitative research method is judging the quality of the study (Young, Fisher, & Kirkman, 2015). And the "validity" and "reliability" terms are continues (Lincoln, 1985).

This thesis has used the causal comparison patterns as a design of the study Hart, & Nolan (1999), have defended it as it a design that seeks to find the correlation between the independent and dependent variables after research. This design has been used because it compares two or more groups of individuals and finds the deference or the similarity between those groups (Salkind, 2010). Patton (2005) confirmed that the opinion of the different individuals should be analyzed in detail.

3.2. Study Sample

This study has taken 98 students as a study sample that represented by 50 students from Al-Najah National University (NNU), and 48 students from Near East University (NEU) that have been taken randomly. The study has taken a homogenous

sample. Both samples have taken from the same sample specie and the same categories (engineering faculty). Table1 representing the sample size and the sample distribution as following:

Table1. Frequency distribution of the study sample

	f	%
NNU	50	50%
NEU	48	50%
Total	98	100%

From the first questions part of the study there is much demographical information that has been known (gender, age, study level, country, and if the participant has taken any environmental course before). Table 2 identify the study sample demographical dimensions as following:

Table 2. Study sample demographical dimensions

Variable	Variable type	Frequency NNU	Percentage	Frequency NEU	Percentage
Gender	Male	33	66%	30	62.5%
	Female	17	34%	20	37.5%
Age	17-23	35	70%	30	62.5%
	24-27	6	12%	11	22.9%
	28-50	9	18%	7	14.6%
Study level	Bachelor degree students	39	78%	27	56.2%
	Master students	9	18%	13	27.1%
	PhD students	2	4%	8	16.7%
Country	Palestine	50	50%		
	Cyprus	48	50%		
Taken any environmental courses before	Yes	31	62%	29	60.4%
	No	19	38%	19	39.6%

Table 2 shows the demographical changes among the study sample. The first demographical variable is “Gender”, (66%) of the NNU participants are males and 34% of the NNU participants are females. The second demographical variable is “Age”, (70%) of NNU students their ages range are 17-23, 12% of the NNU participants their ages range are 24-27, and 18% their ages range are 28-40. The third demographical variable study the NNU participant's study level, 78% of the students' study level is a

bachelor's degree, 18% of the students' study level is a master's degree, and 4% of the student's study level is a Ph.D. degree. The third demographical variable is country, 50% of all samples are Palestinians, and 50% of the participants are Cypriots. The fourth demographical variable is if the NNU students have taken any environmental courses, 62% of the NNU participants have taken an environmental course, and 38% of the NNU participants haven't taken any environmental courses.

3.3. Data Collection Tool

Data collection tool aims to determine and compare the environmental culture and the sustainable environment levels of the students the study tool in this study is divided into three sections. The first section (personal questions) is including five questions about gender, age, country, study level and the environmental background. That information is going to be used to identify demographical variability and if there is any relation between the demographical variability and the study aim. The second section (study questions) includes 12 questions that identify the environmental culture that has been divided into skills questions, knowledge questions and attitude questions. The third section (sustainable environment) includes five questions that going to identify the sustainable environment. While creating the measurement tool, opinions were obtained from 5 experts who have been trained in Environmental Education, English Grammar, Science Education and Scientific Research proficiency.

The direct face-to-face interview method has been chosen to collect the data. Ekici, Bakar, Akbayrak, & Yuksel (2009) have defended it as it's a controlled conversation used by the researcher to obtain the required data from the participants by asking questions. Face-to-face interview method is considered as key qualitative data collection especially for social research (Alshenqeeti, 2014). The advantages of the face-to-face interview method it describes and analyzes the research problems without limiting (Roytek, 2010). This method can have fewer answers confusion because the interviewer can provide the information if there are uncertain answers (Hofisi, Hofisi, & Mago, 2014).

3.4. Data Procedure

The face- to- face interview is conceded more accurate, as the interviewee is unable to provide false information during the interview (Burke, Miller, 2001). The reason for choosing this method is that the direct interview is one of the easiest and fastest ways to identify the chosen sample knowledge and information about a study problem Kaya, S., Akbayrak, & Beksaç (2011). Each interview has taken as average 11 minutes. The interviews have been done during six days the data collection tool depends on the open-ended questions that give the participants the right to describe what they know about the subject in details. After construction of the tool was completed, the pilot study was conducted with environmental education experts. There was no addition or removal to the instrument questions after the pilot study was applied. Data were collected in a university environment in order to provide a more effective response process for the participants. Data collected at the end of the 2019-2020 semesters. Results are evaluated in two parts according to many research questions. The first part has 11 questions to identify the environmental culture that the participants' have. The second part has five questions that identify the environmental sustainability the participants' have. Both parts questions have proved that can measure the participants' level.

3.5. Data Analysis

Qualitative data analysis aims to describe general data on topics and relationships on the data. Wolcott (1994) asserts that the term "analysis" is general and includes the three main categories when analyzing data, namely description, analysis, and interpretation. He argues that these categories are not exclusive; they cannot be clearly separated by a line, but he believes that identifying and distinguishing each category may be useful for organizing data. In qualitative data, especially content analysis, data collection simultaneously receives some kind of interpretation.

Reading the data by following the inclusion criteria in the database leads to the interpretation of the first letters of the concepts. However, depending on the researcher,

the analysis can begin at the data collection stage (Marshall and Rusman, 2006). After analyzing the conceptual framework and questioning data, ideas emerge in categories by linking to texts. Although the overall style and meaning categories are exclusive, they are created based on the current framework. In a related strategy, the topics are found within the data, and the researcher creates a deductive deduction analysis (Marshall and Rusman, 2006).

This study analyses the section done in three different phases. First, interview answers were reviewed over and over (Merriam, 1998); the researcher highlighted the significant words that were chosen after looking to the participant answers (Glaser & Strauss, 1967), those phrases that distinguished to be consistent (Marshall & Rossman, 1989). The researchers categorize the highlighted phrases to themes and codes (Bogdan & Biklin, 1982). Second, the researcher used the study themes and codes to find the correlation between the different variables. The researcher developed tables to compare the various coded. The researcher used SPSS software to analyze the data, which used to create explanatory graphs and figures.

CHAPTER IV
FINDINGS AND DISCUSSION

4.1. Environmental Culture

4.1.1. Environmental attitude

In order to identify the environmental culture as a main sub-objective "What is the "environmental culture" level of the students both in North Cyprus and Palestine?" there are three main stages that should be taken. The stages are to know the environmental attitude (4), the environmental knowledge (4) and the environmental skills (3) that the students have. This stage has four questions to discover the student attitude toward environment.

1. If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?

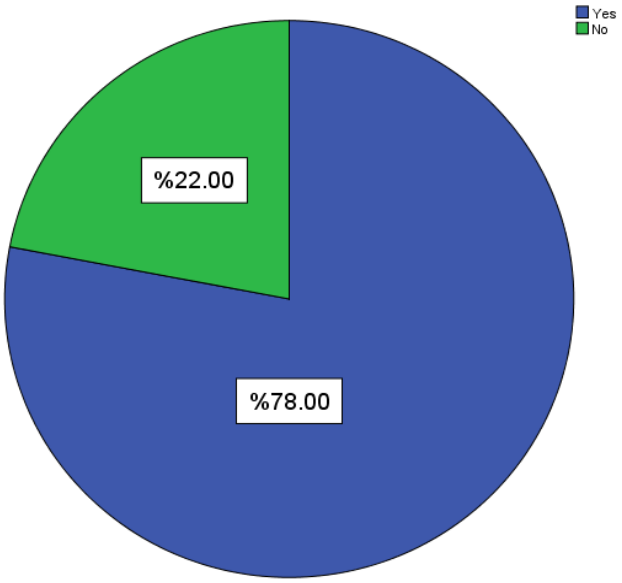

Figure 1. NNU participants' response toward changing the job for environment

As the figure 1 shows the response of the NNU on the question "If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?" the result was

that 78% of NNU students have answered “Yes” that mean that they can change their job or changing the job plan for environment, and 22% of them they answered “No” that they won’t change their job or their job plan for the environment.

Table 3. NNU participants’ response toward changing the job for environment

Theme	code	NNU (Palestine)	%
Conservation attitude	To conserve environment	31	79.5%
	For next generation	8	20.5%
Other reasons	economical reason	7	14%
	no reasons	3	6%

Table 3 shows the response of NNU on the question “If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?” the result was that the respondents have themed under “conservation attitude”. 79% of the NNU students have mentioned “To conserve environment” code as an answer of this question, 20.5% of the students have mentioned “For next generation” code as an answer of this question. The other responses of NNU participants have themed under “other reason” theme. 14% of the students have minted that they would not change their job for “economical reason” reason and 6% of them have mentioned that they would not change their job due to “no reasons”.

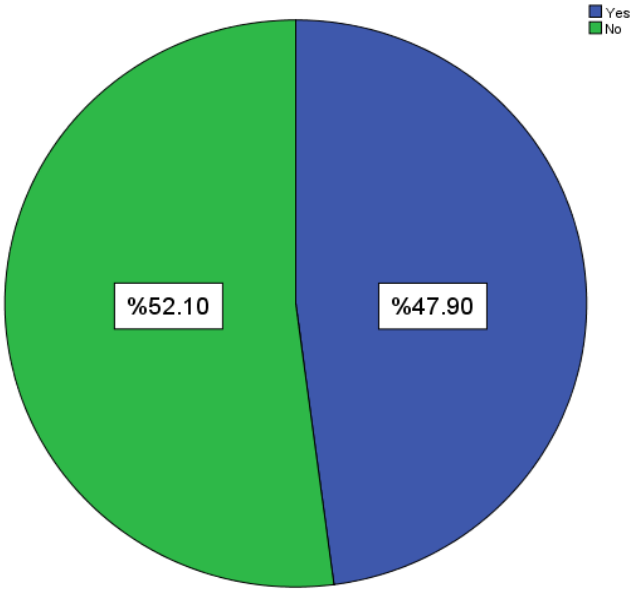

Figure 2. NEU participants' response toward changing the job for environment

As shown in figure 2 the response of the NEU participants on the question "If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?" the result was that in NEU have been noted that 47.9% of NEU students have answered "Yes" that mean that they can change their job or changing the job plan for environment, and 52.1% of them they answered "No" that they won't change their job or their job plan for the environment. The digitals as shown in the flowing table:

Table 4. NEU participants' response toward changing the job for environment

Theme	code	NEU (Cypriots)	%
responsible attitude	To conserve environment	17	35.4%
	Environment is better than money	11	22.9%
Other reasons	Economical things	7	14.5%
	I love my job	8	16.6%

Table 4 shows the response of NEU on the question "If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?" the result was that the respondents have themed under "responsible attitude". 35.4% of the NEU students have

mentioned “To conserve environment” code as an answer of this question, 22.9% of the students have mentioned Environment is better than money” code as an answer of this question. On other hand the students have themed there response under “Other reasons” theme. 14.5% of the NEU participants have mentioned “Economical things” as a reason and 16.6% of the NEU participants have mentioned “I love my job”.

Under the light of the student responses in the both universities, the researcher noticed that the NNU participants have themed there response under “To conserve environment”, and “other reasons” in NNU. On other hand, the researcher noticed that the NNU participants have themed there response under “responsible attitudes” and “other reasons”. As shown in table 4 and table 3 the response of NNU participants toward the environmental attitude is more preferable than the NEU participants.

2. Would you pay more money for organic food for environmental protection and for your health? Why?

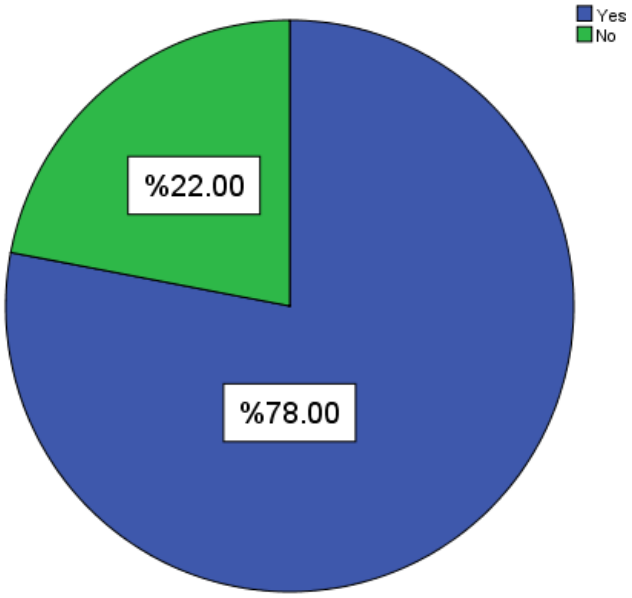

Figure 3. NNU participants’ response toward paying more money for organic food

Figure 3 shows the response of NNU on the question “Would you pay more money for organic food for environmental protection and for your health? Why?” the result is that of the 50 participants from NNU 78% of participants has answered “Yes”,

and 22% participants have answered the question as “No”. The digitals as shown in the following table:

Table 5. NNU participants’ response toward paying more money for organic food

Theme	code	NNU (Palestine)	%
Protection attitude	health	27	69.3%
	saving environment	12	30.7%
Other reasons	Economic reasons	3	6%
	No reason	8	16%

Table 5 shows the response of NNU on the question “Would you pay more money for organic food for environmental protection and for your health? Why?” this table represents the responding of the NNU toward the environmental attitude there respondent have themed under “Protection attitude”. 69.3% of the NNU students have mentioned “health” code as an answer of this question, 20.5% of the students have mentioned “saving environment” code as an answer of the question. The other responses have themed under “Other reasons”. 6% of NNU participants have mentioned “economic reasons” code as an answer of the question and 16% of NNU participants have mentioned “No reason” code as an answer of the question.

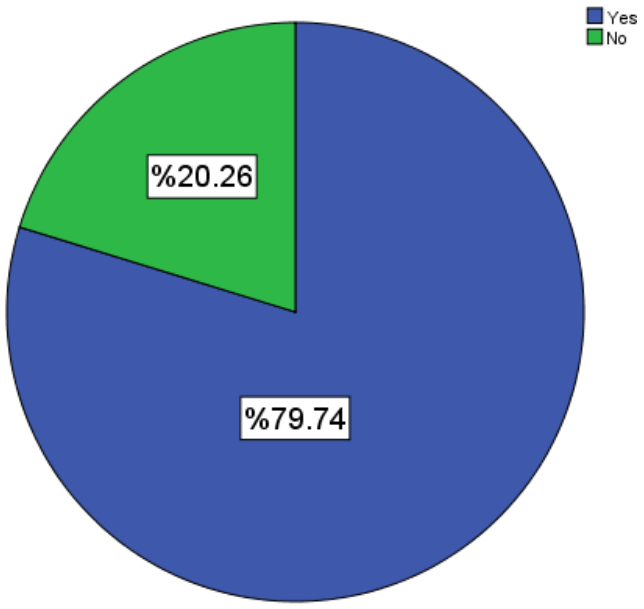

Figure 4. NEU participants’ response toward paying more money for organic food

Figure 4 shows the response of NEU on the question "Would you pay more money for organic food for environmental protection and for your health? Why?" the result is that of the 48 participants from NNU 79.1% of participants has answered "Yes", and 20.9% participants have answered the question as "No". The digitals as shown in the following table:

Table 6. NEU participants' response toward paying more money for organic food

Theme	code	NEU (Cypriots)	%
Protection attitude	health	22	45.9%
	for sustainability	14	29.1%
Other reasons	Economic reasons	6	12.5%
	actually not organic	4	8.3%

Table 6 shows the response of NEU on the question "Would you pay more money for organic food for environmental protection and for your health? Why?" this table represents the responding of the NEU toward the environmental attitude there respondent have themed under "Protection attitude". 45.9 % of the NEU students have mentioned "health" code as an answer of this question, 29.1 % of the students has mentioned "saving environment" code as an answer of the question. The other responses have themed under "Other reasons". 12.5% of NEU participants have mentioned "economic reasons" code as an answer of the question and 8.3% of NEU participants have mentioned "actually it's not organic" code as an answer of the question.

Under the light of the student responses in the both universities, the researcher noticed that the NNU participants and NEU participants have themed the same themes" Protection attitude" and "other reasons" themes. But their codes had changes, for the NEU they have coded "actually it's not organic" as a reason of the never baying more money for organic food, but NNU hasn't coded this code as an answer for the question. As shown in table 5 and table 6 the response of NNU participants toward the environmental attitude is less preferable than the NEU participants.

3. Have you ever separate the different types of waste in your home?

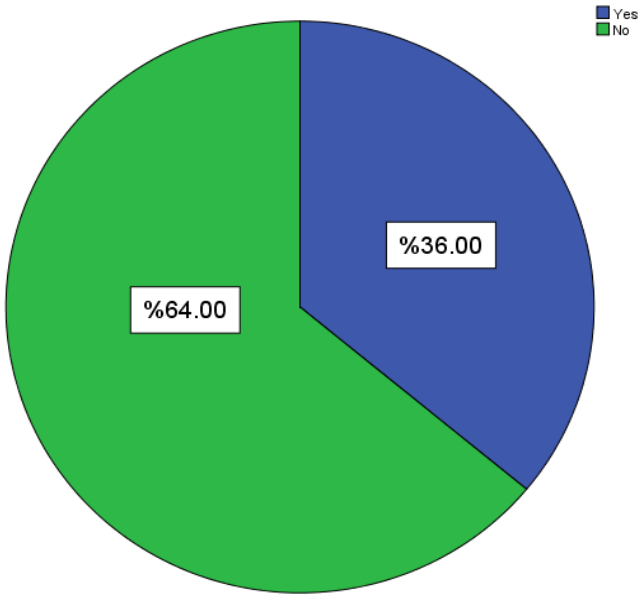

Figure 5. NNU participants' response toward separation wastes type

Figure 5 shows the response of the NNU on the question "Have you ever separated the different types of waste in your home?" the result was that 36% of NNU students have answered "Yes", and 64% of them they answered "No". The digitals as shown in the following table:

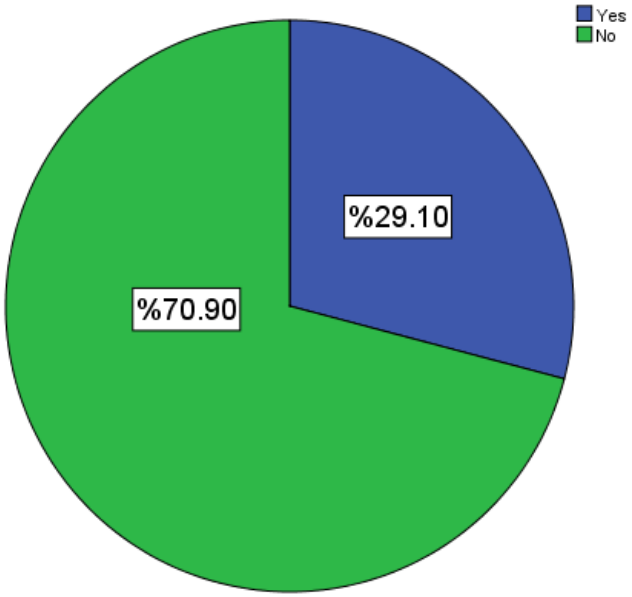

Figure 6. NEU participants' response toward separation wastes type

Figure 6 shows the response of the NNU on the question "Have you ever separate the different types of waste in your home?" the result was that 29.1%% of NNU students have answered "Yes", and 70.9% of them they answered "No". The digitals as shown in the following table:

Under the light of the student responses in the both universities, figures 5, 6 shows that the researcher noticed that the NNU participants are have feel satisfied toward the environmental attitude more than the NEU participants.

4. What will you do if you have seen anyone have thrown some wastes on the way?

Table7. NNU participants' response if they have seen anyone throwing wastes in the road

Theme	code	NNU (Palestine)	%
Positive waste management Attitude	I would aware him	27	54%
	I would take it	15	30%
Negative waste management attitude	I would do nothing	15	30%
	I can't do anything	3	6%

Table 7 represents the responding of the NNU toward the environmental attitude there respondent have themed under "Positive waste management attitude", 54% of participants answered that if they saw anyone throw waste on the road they "I will aware him", 30% participants answered the question they "I would take it", the other response have been themed under "Negative waste management attitude" theme, 30% of them have been answered that "I would do nothing", 6% of them have been answered "I can't do anything".

Table 8 represents the responding of the NEU toward the environmental attitude there respondent have themed under "Positive waste management attitude", 47.9% of the participants answered that if they saw anyone throw waste on the road they "I will aware him", 33.3% participants answered the question they "I would take it" and 10.4% of the participants have answered that they "would call the police". The other responses have been themed under "Negative waste management attitude" theme, 10.4% of them have

been answered that “I would do nothing”, 6% of them have been answered “it’s not my job”.

Table 8. NEU participants’ response if they have seen anyone throwing wastes in the road

Theme	code	NEU(Cypriots)	%
Positive waste management Attitude	I would aware him	23	47.9%
	I would take it	16	33.3%
	I would call the police for him	5	10.4%
Negative waste management attitude	I would do nothing	5	10.4%
	It’s not my job	3	6%

Under the light of the student responses in the both universities, tables 7, 8 shows that the researcher noticed that the NEU participants have themed there answers under the same themes “Positive waste management Attitude” and” Negative waste management attitude” but they had different codes. For example, the code “it’s not my job” can be found in NEU responses but can’t be founded among the NNU response. At the entire researcher have notice that the NNU participants are more positive towered the environmental attitude than the NNU participants. As a result of the student responses on the previous four questions the NNU participants’ feels more comfortable toward the environmental attitude.

Inconsistent Al-Khatib, I. A., Ajlouny, Al-Sari’, & Kontogianni (2014) have reported in his research “Residents’ concerns and attitudes toward solid waste management facilities in Palestine: A case study of Hebron district”, that the Palestinians Respondents (men and women) from different communities are concerned about the operational implications of environmental attitude. In other hand Aslanova et al. (2019) have reported a similar research result the Cypriot students in his research were less positivity toward the environmental attitude than the Egyptians.

4.1.2. Environmental knowledge

In order to identify the environmental culture as a main sub-objective “What is the “Environmental culture” level of the students both in North Cyprus and Palestine?” there are three main stages that should be taken. The stages are to know the

environmental attitude (4), the environmental knowledge (4) and the environmental skills (3) that the students have. One of them has been discussed and the second one is going to be discussed as following:

1. In your opinion, should the governments allocate a part of country budget for the environment and the environmental issues?

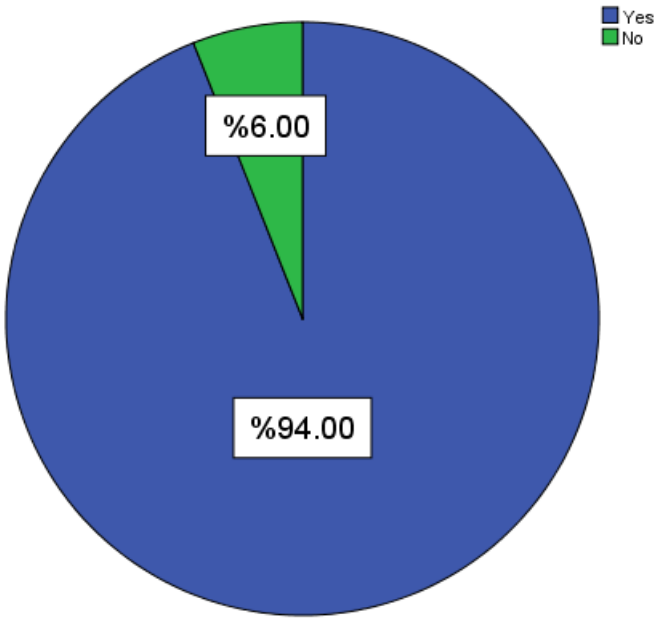

Figure 7. NNU participants' response toward allocation a part of countries budget for environmental issues

Figure 7 Shows the response of NNU on the question" In your opinion, should the governments allocate a part of country budget for the environment and the environmental issues?" of the 50 participants from NNU, 94% of participants have answered that the government should allocate from its general budget for environmental issues and problems, but 6% of participants have answered that the government should not allocate from its general budget for environmental issues and problems.

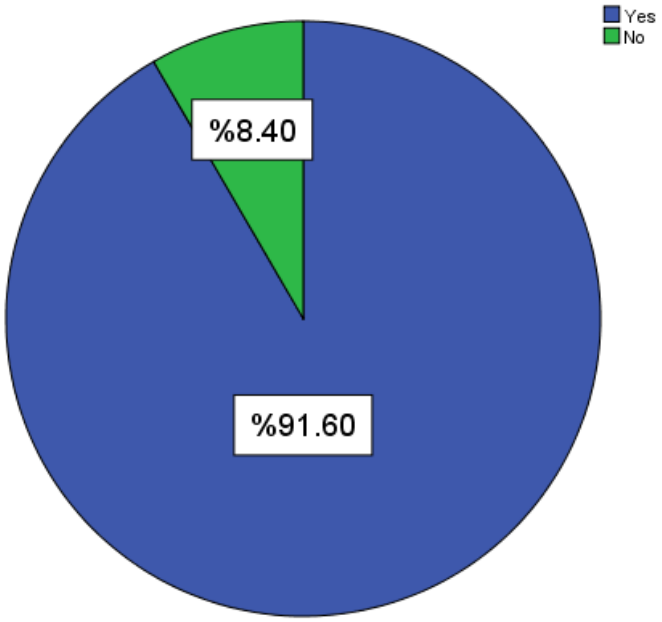

Figure 8. NNU participants' response toward allocation a part of countries budget for environmental issues

Figure 8 Shows the response of NNU on the question" In your opinion, should the governments allocate a part of country budget for the environment and the environmental issues?" Of the 48 participants from NNU, 91% of participants have answered that the government should allocate from its general budget for environmental issues and problems, but 9% of participants have answered that the government should not allocate from its general budget for environmental issues and problems.

Under the light of the student responses in the both universities, figures 7, 8 show that the researcher has noticed that the NNU participants are more carful toward the environmental knowledge.

2. Why some of springs and water sources have gone for those days?

Table 9 represents the responding on the question "Why some of springs and water sources have gone for those days?" Of the NNU toward the environmental knowledge there respondent have themed under "natural resources determination", 14% participants have expressed the reason for the disappearance of some water resources due to "environmental problems" that occurred in the recent days such as the increase in

temperatures, 44% participants answered that the matter was attributed to the increase in water consumption from the population in addition to misuse; while 10% of them answered that they had no idea about the issue. The other responses have been themed under “political problems” theme 20% of the participants have answered the question that the water disappearance in Palestine is due to “occupation problems”, 6% of theme think that the reason of the water disappearance is due to the “roles problems”.

Table 9. NNU participants’ reasons of the water problems

Theme	code	NNU (Palestine)	%
Natural resources determinations	Environmental problems	7	14%
	Resources up using and misusing	22	44%
	don’t know	5	10%
Political problems	Occupation problems	10	20%
	Roles problems	3	6%

Table 10 represents the NEU participants’ responses on the question “Why some of springs and water sources have gone for those days?” Of the NNU toward the environmental knowledge there respondent have themed under “Human misusing activities” theme, 31.2% of the NEU participants have represented their answer by using “resources up using and misusing” code, 35.4% of the NEU participants have represented their answer by using “Trash mismanagement” code, 12.5% of NEU participants have represented their answer by using “No water refining system” code, and 25% of the NEU participants have represented their answer by using “No water protection roles” code.

Table 10. NEU participants’ reasons of the water problems

Theme	code	NEU(Cypriots)	%
Human misusing Activities	Resources up using and misusing	15	31.2%
	Trash mismanagement	17	35.4%
	No water refining system	6	12.5%
	No water protection roles	12	25%

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have completely deferent themes than the NEU participants as shown in table 10, 9. The researcher has noticed that the participants of NEU are more comfortable toward the environmental knowledge.

2. What do you know about the green buildings?

Table 11. NNU background about the green buildings

Theme	code	NNU (Palestine)	%
Sustainable practices	Buildings that use solar generators.	14	28%
	Using non-toxic materials.	11	22%
	Buildings that conserve environment.	10	20%
No information	I don't know	20	40%

Table 11 this table represents the response on the question "What do you know about the green buildings?" Of the NNU the answers have themed under "Sustainable practices "theme, 28% of them have answered that the green building is" Buildings that use solar generators", 22% of the participants have answered that the green buildings is "Using non-toxic materials", and 20% of them have been answered that the green building is "Buildings that conserve environment". The other responses have been themed under "no information" theme, 40% of them have been answered that they "I don't know".

Table 12. NEU background about the green buildings

Theme	code	NEU(Cypriots)	%
Positive opinions	Environmental friendly buildings	14	29.1%
	Buildings that use conservative resources	20	41.6%
Negative opinions	I don't know	19	39.5%

Table 10 this table represents the response on the question "What do you know about the green buildings?" Of the NEU the answers have themed under "Positive opinions" theme, 29.1% of NEU participants' have expressed their answer by using "Environmental friendly buildings" code and 41.6% of NEU participants' have expressed their answer by using "buildings that use conservative resources" code. The other participants' have expressed their answer under "negative opinion", 39.5% of the NEU participants' have expressed their answer by using "I have no information" code.

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have mentioned completely deferent themes in comparison with NEU participants as shown in table 11, 12. The researcher has noticed that the participants of NEU are more positive toward the environmental knowledge.

3. Which type of trashes can be recycled?

Table 13. The trashes that can be recycled according to the opinion of NNU

Theme	code	NNU (Palestine)	%
Synthetic materials	Plastic	21	42%
	Paper	14	28%
	Glasses	15	30%
Natural materials	Wood	12	24%
	Water	9	18%

Table 13 shows represents the responding of the NNU toward the environmental knowledge there respondent have themed under "Synthetic materials", 42% of participants have answered that "Plastic" can be recycled, 28% of participants have answered that "paper" can be recycled, and 30% of participants have answered that "glass" can be recycled,. The other responses have been themed under ""Natural materials" theme, 12% of them have been answered that "wood" can be recycled, and 9% of them have answered that "water" can be recycled.

Table 14. The trashes that can be recycled according to the opinion of NNU

Theme	code	NEU(Cypriots)	%
Synthetic materials	Plastic	21	42%
	Paper	14	28%
	Glasses	15	30%
Natural materials	Wood	12	24%
	Water	9	18%

Table 14 shows represents the responding of the NEU toward the environmental attitude there respondent have themed under "Synthetic materials", 42% of participants have answered that "Plastic" can be recycled, 28% of participants have answered that "paper" can be recycled, and 30% of participants have answered that "glass" can be recycled,. The other responses have been themed under ""Natural materials" theme, 24% of them have been answered that "wood" can be recycled, and 18% of them have answered that "water" can be recycled.

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have completely similar themes in comparison with NEU participants as shown in table 13, 14. The researcher has noticed that the participants of NEU are and NNU in general have the same background toward the environmental knowledge. As a result of the student responses on the previous four questions the NEU participants' feels more comfortable toward the environmental knowledge.

Sarsour, Ayoub, Al-Nirab, & Aita, (2015) have reported in "A Preliminary Assessment for the Environmental Awareness of the Universities' Students in Gaza strip- Palestine" research a similar result that the Palestinians university students have a positive environmental knowledge. For the Cypriot students Varoglu, Temel, & Yılmaz, (2018) have reported the outcome of his research that the University of North Cyprus has a positive thought toward the environmental knowledge.

4.1.3. Environmental skills

In order to identify the environmental culture as a main sub-objective "What is the "environmental culture" level of the students both in (NEU) North Cyprus and (NNU) Palestine?" there are three main stages that should be taken. The stages are to

know the environmental attitude (4), the environmental knowledge (4) and the environmental skills (3) that the students have. Two of them have been discussed and the third one is going to be discussed as following:

1. *In your opinion how can you prevent the environmental pollution and its affection on your life?*

Table15. NNU participants' opinion about the prevention from environmental pollution

Theme	code	NEU(Cypriots)	%
Governmental practices	Saving roles	17	34%
	Impose penalties	18	36%
Personal practices	Using non-pollutants	11	22%
	Planting activities	17	34%
	Cleaning activities	6	12%
Educational practices	Environmental courses	13	26%
	Educational activities	5	10%

Table 15 shows represents the responding on the question "In your opinion how can you prevent the environmental pollution and its affection on your life?" of the NNU have been themed under three themes. first, "governmental practices" theme, 17% of them have been mentioned that the environmental pollution can be prevented by "saving roles", and 36% of them have been mentioned that the environmental pollution can be prevented by "impose penalties". Second, "Personal practices", 22% of them have been mentioned that the environmental pollution can be prevented by "using non-pollutants", 34% of them have been mentioned that the environmental pollution can be prevented by "using non-pollutants", 12% of them have been mentioned that the environmental pollution can be prevented by "using non-pollutants". Third, "Educational practices" theme 26% of them have been mentioned that the environmental pollution can be prevented by "Environmental courses", 10% of them have been mentioned that the environmental pollution can be prevented by "Educational activities".

Table 16. NEU participants' opinion about the prevention from environmental pollution

Theme	code	NNU (Palestine)	%
Governmental practices	Saving roles	21	43.7%
	Impose penalties	12	25%
Personal practices	Cleaning activities	11	22.9%
	Planting activities	9	18.7%
	Create environmental associations	6	12.5%
Educational practices	Environmental courses	7	14.5%
	Educational activities	4	8.3%

Table 16 shows represents the responding on the question "In your opinion how can you prevent the environmental pollution and its affection on your life?" of the NNU have been themed under three themes. first, "governmental practices" theme, 43.7% of them have been mentioned that the environmental pollution can be prevented by "saving roles", and 25% of them have been mentioned that the environmental pollution can be prevented by "impose penalties". Second, "Personal practices", 22.9% of them have been mentioned that the environmental pollution can be prevented by "Cleaning activates", 18.7% of them have been mentioned that the environmental pollution can be prevented by "Planting activities" and 12.5% of them have been mentioned that the environmental pollution can be prevented by "Create an environmental associations". Third, "Educational practices" theme 14.5% of them have been mentioned that the environmental pollution can be prevented by "Environmental courses", 8.3% of them have been mentioned that the environmental pollution can be prevented by "Educational activities".

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have mentioned completely similar themes in comparison with NEU participants' responses as shown in table 16, 15. The researcher has noticed that the participants of NEU and NNU in general have the same background toward the environmental skills.

2. *If you have a chance could you make any environmental voluntary activities? What type for example?*

Table17. NNU participants' environmental activities

Theme	code	NNU (Palestine)	%
Academic voluntary activities.	Make environmental awareness.	9	18%
	Take environmental courses.	11	22%
Traditional voluntary activities.	Cleaning	27	54%
	Planting	14	28%

Table 17 shows represents the responding of the NNU toward the environmental knowledge there respondent have themed under "Environmental volunteer activities", 18% of participants have answered that they would "Make environmental awareness" as environmental activity, and 22% of participants have answered that they would "Take environmental courses" as environmental activity. The other respondents have been themed there answers under "Traditional voluntary activities" theme, 54% participants answered the question they "cleaning", and 28% participants answered that if they saw anyone throw waste on the road, they "planting".

Table 18. NEU participants' environmental activities

Theme	code	NEU(Cypriots)	%
Public activities	Planting activities	31	64.5%
	Cleaning activities	12	25%
	Environmental guidance activities	9	18.7

Table 16 shows represent the responding of the NEU toward the environmental skills their respondent have themed under "Public activities" theme, 64.5% of participants have answered that they would "Planting activities" code, 25% of participants have answered that they would "Cleaning activities" code and 18.7% of participants have answered that they would "Environmental guidance activities" code.

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have mentioned completely deferent themes in comparison with NEU participants' responses as shown in tables 17, 18. The researcher

has noticed that the NNU participants' are more satisfied toward the environmental skills.

3. What can we do to decrease the energy usage?

Table 19. Energy usage decreasing NNU

Theme	code	NNU (Palestine)	%
renewable energy	Use the solar energy	12	24%
	use wind energy	5	10%
	Use hydro energy	6	12%
Reducing energy	Turn of the lights	18	36%
	Using less consuming lights	10	20%
	Using solar energy generators	8	16%
Increase the environmental awareness	Taking environmental courses	4	8%
	Giving environmental courses	7	14%

Table 19 shows represent the responding on the question "What can we do to decrease the energy usage?" of the NNU have been themed under three themes. First, "renewable energy" theme, 17% of NNU participants have been mentioned that the energy can be decreased by "use the solar energy", 10% of NNU participants them have been mentioned that the energy can be decreased by "use wind energy", and 12% of NNU participants them have been mentioned that the energy can be decreased by "use hydro energy". Second, "Reducing energy", 36% of NNU participants has been mentioned that the energy can be decreased by "Turn of the lights", 20% of NNU participants have been mentioned that the energy can be decreased by "Using less consuming lights", 16% of NNU participants have been mentioned that the energy can be decreased by "Using solar energy generators". Third, "Increase the environmental awareness" theme 8% of NNU participants have been mentioned that the energy can be decreased by "Taking environmental courses", 14% of NNU participants have been mentioned that the energy can be decreased by "Giving environmental courses".

Table 20. Energy usage decreasing NEU

Theme	code	NEU (Cypriot)	%
Conservatism	Turning off unused lights	30	62.5%
	Use the public transportation	12	25%
Use renewable energy	Use the solar energy	11	22.9%
	Use water energy	4	8.3%

Table 20 shows represent the responding on the question "What can we do to decrease the energy usage?" of the NEU have been themed under "conservatism" theme, 62.5% of NEU participants have been mentioned that the energy can be decreased by "Turning off unused lights" and 25% of NEU participants have been mentioned that the energy can be decreased by "Use the public transportation". The other participants' have been themed their response under "Use renewable energy" theme, 22.9% of NEU participants have been mentioned that the energy can be decreased by "Use the solar energy", 8.3% of NEU participants have been mentioned that the energy can be decreased by "Use water energy".

Under the light of the student responses in the both universities, the researcher has noticed that the NNU participants have mentioned deferent themes in comparison with NEU participants' responses as shown in table 19, 20. The researcher has noticed that the NNU participants' are more informative toward the environmental skills. As a result of the student responses on the previous three questions the NNU participants' feels more comfortable toward the environmental skill.

Assali, Khatib, & Najjar (2019) have reported in the research "Renewable energy awareness among future generation of Palestine" that the Palestinian students have positive environmental skills. Aslanova & Gökçekuş (2019), as a result of their research "Foreign Nationals Perspectives about Climate Change Impacts on the Environment" that have applied on the Cypriots the result was smellier to this research result the Cypriots have positive environmental skills.

The result of the both universities participants on the first stage was that the NNU participants' feel more comfortable, unlike the second stage that showed that the NEU students are more comfortable to environmental knowledge, the third stage result

have been that the NNU participants' are more comfortable toward the environmental skills. Overall result of the three environmental culture stages attitude, knowledge and skills the participants' that the NNU participants' are feeling more comfortable towered the environmental culture.

4.2. Sustainable Environment

In order to identify the second main sub-objective the sustainable environment level of the students both in North Cyprus and Palestine? There are five questions that going to identify the sustainable environment information's that the students have as following figures.

1. Have you ever thought to use or to buy an electrical car?

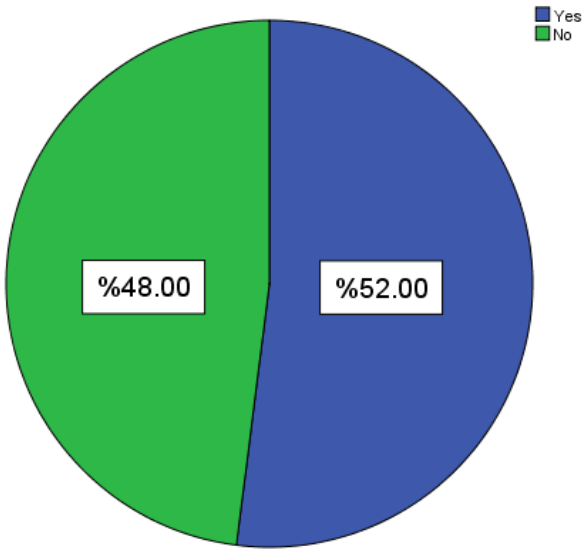

Figure 9. NNU thoughts about the electric cars

Figure 9 shows that 53% of NNU students have answered "Yes" that mean that they have thought before to buy an environmental friendly car, and 46% of them they answered "No" and that mean that they have never thought to have an electrical car.

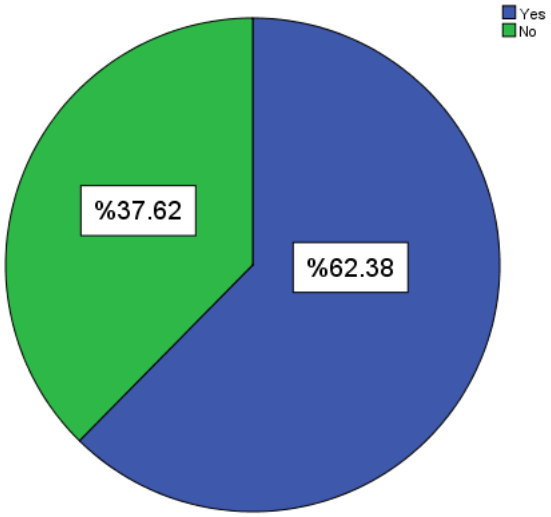

Figure 10. NEU thoughts about the electric cars

Figure 10 shows that 62.38% of NEU students have answered "Yes" that mean that they have thought before to buy an environmental friendly car, and 37.62% of them they answered "No" and that mean that they have never thought to have an electrical car.

Under the light of the student responses on the question" Have you ever thought to use or to buy an electrical car?" in the both universities, figures 10, 9 show that the researcher has noticed that the NEU participants are more carful toward the sustainable environmental.

2. Have you ever used a plastic bag more than one time?

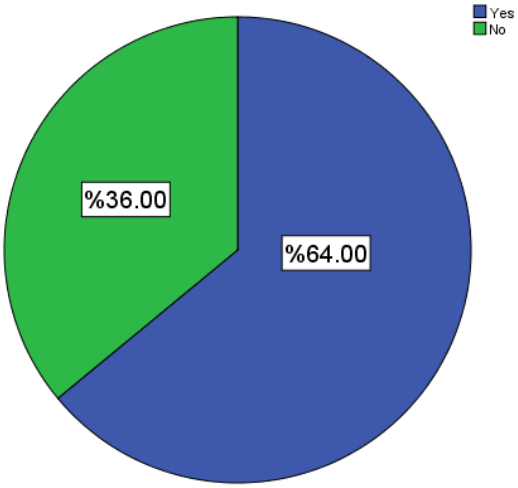

Figure 11. NNU participants' response about if they have used plastic page more than one time

Figure 11 shows that 64% of NNU students have answered “Yes” that mean that they have thought before to buy an environmental friendly car, and 36% of them they answered “No” and that mean that they have never thought to have an electrical car.

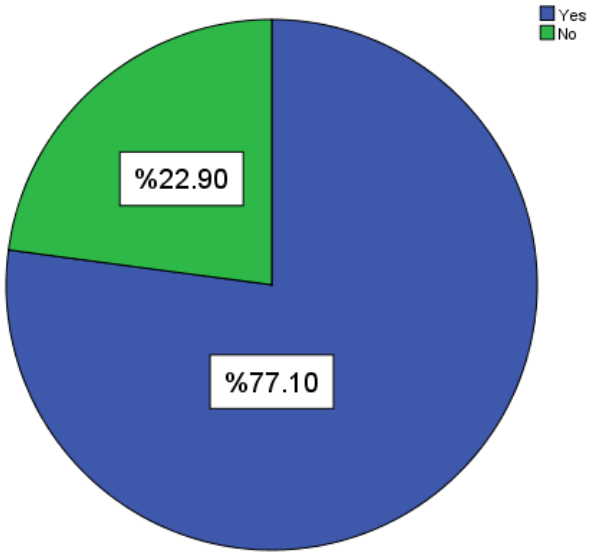

Figure 12. NNU participants’ response about if they have used plastic page more than one time

Figure 12 Shows that 77.1% of NEU students have answered “Yes” that mean that they have thought before to buy an environmental friendly car, and 22% of them they answered “No” and that mean that they have never thought to have an electrical car.

Under the light of the student responses on the question” Have you ever used a plastic bag more than one time?” in the both universities, figures 12, 11 show that the researcher has noticed that the NNU participants are more carful toward the sustainable environmental.

3. Do you use reusable bottles?

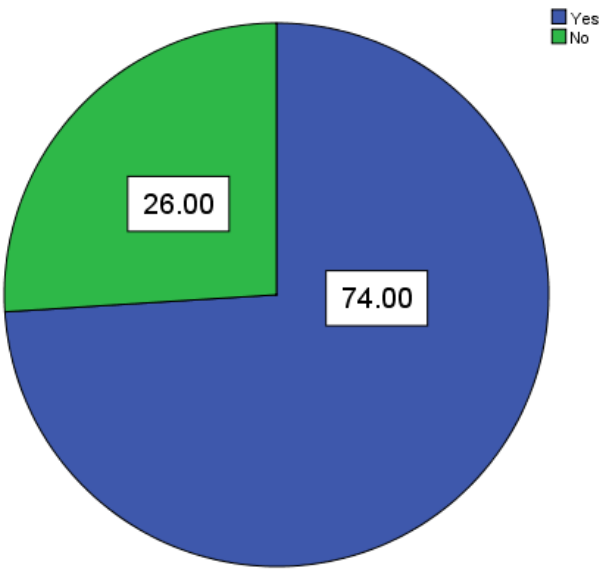

Figure 13. NNU participants' use reusable water bottles

Figure 13 shows that 74% of NNU students have answered "Yes" that means that they have thought before to buy an environmentally friendly car, and 26% of them they answered "No" and that means that they have never thought to have an electric car.

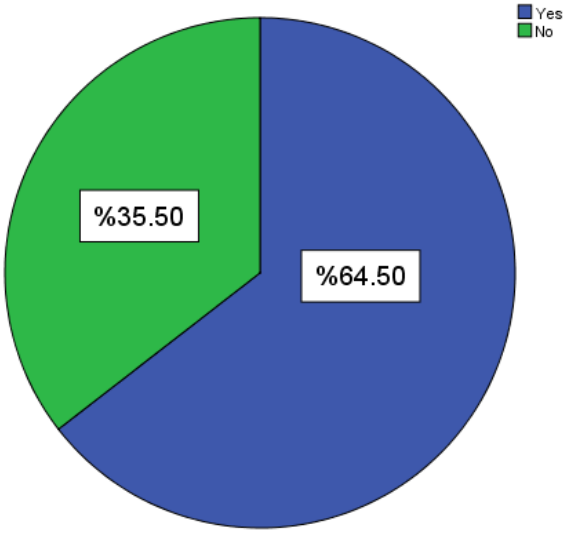

Figure14. NEU participants' use reusable water bottles

Under the light of the student responses on the question" Have you ever used a plastic bag more than one time?" in the both universities, figures 14, 13 show that the researcher has noticed that the NNU participants are more carful toward the sustainable environmental.

Figure 14 shows that 64.5% of NEU students have answered "Yes" that means that they have thought before to buy an environmentally friendly car, and 35.5% of them they answered "No" and that means that they have never thought to have an electric car.

4. Have you ever used the recycled water?

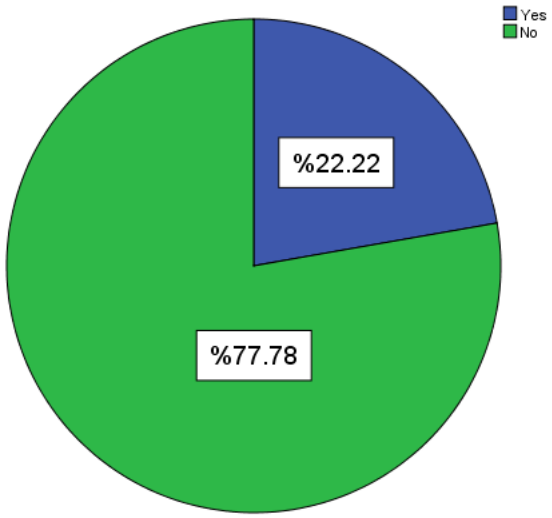

Figure 15. NNU participants' response about if they have used recycled water

Figure 15 shows that 22% of NNU students have answered "Yes" that mean that they have thought before to buy an environmental friendly car, and 78% of them they answered "No" and that mean that they have never thought to have an electrical car.

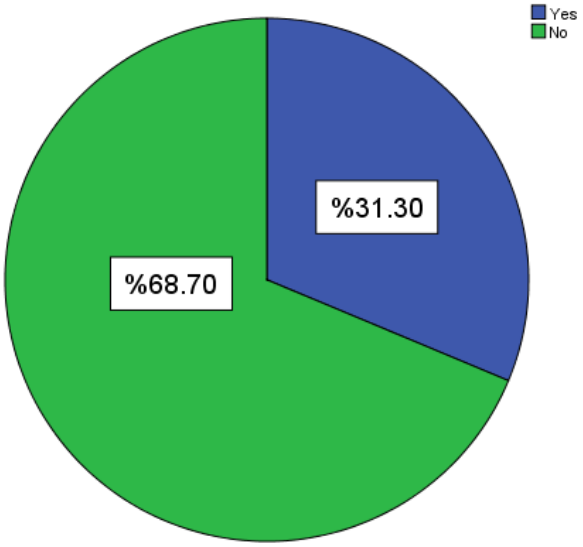

Figure 16. NEU participants' response about if they have used recycled water

Figure 16 Shows that 31.3% of NEU students have answered "Yes" that mean that they have thought before to buy an environmental friendly car, and 68.7% of them they answered "No" and that mean that they have never thought to have an electrical car.

Under the light of the student responses on the question" Have you ever used a plastic bag more than one time?" in the both universities, figures 16, 15 show that the researcher has noticed that the NEU participants are more carful toward the sustainable environmental.

5. Do you know the composting process?

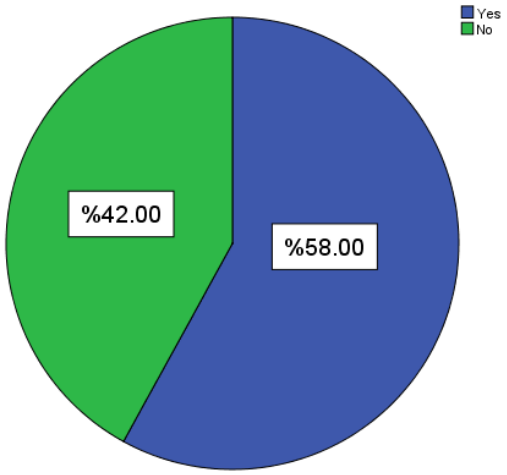

Figure 17.NNU participants' response about the composting process

Figure 17 shows that 58% of NNU students have answered “Yes” that mean that they have thought before to buy an environmental friendly car, and 42% of them they answered “No” and that mean that they have never thought to have an electrical car.

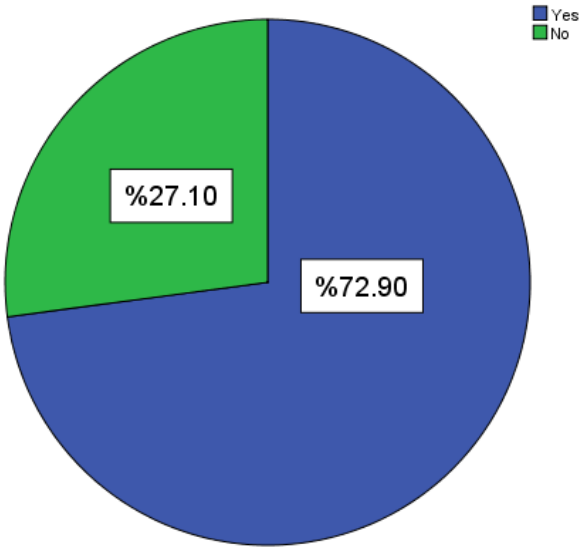

Figure 18.NNU participants’ response about the composting process

Figure 12 shows that 72.9% of NNU students have answered “Yes” that mean that they have thought before to buy an environmental friendly car, and 27.1% of them they answered “No” and that mean that they have never thought to have an electrical car.

Under the light of the student responses on the question” Have you ever used a plastic bag more than one time?” in the both universities, figures 18, 17 show that the researcher has noticed that the NEU participants are more carful toward the sustainable environmental.

The result of the both universities participants on the five questions was as following: first question, the NEU participants’ shows that they feel more comfortable toward the sustainable environment, second question, the NEU participants’ shows that they feel more comfortable toward the sustainable environment, third question, the NNU participants’ shows that they feel more comfortable toward the sustainable environment, fourth questions, the NEU participants’ shows that they feel more comfortable toward the sustainable environment, fifth question, the NEU participants’ shows that they feel more comfortable toward the sustainable environment. The overall result that the

participants' of the NEU participants' are feeling more comfortable towered the sustainable environment.

Consistent with this result, Al-Sa'ed, Abu-Madi, & Heun (2009) have worked on research "Advancing Environmental Education and Training for Sustainable Management of Environmental Resources in Palestine" the result was that the Palestinians are having some sustainable environment misunderstanding and weakness. That is because of the concrete experience gained by the implemented projects provides clear evidence that environmental education and research capacity-building in Palestine are still not fully utilized and threatened by a persistent lack of financial resources. The effect of insufficient national funding and the absence of research incentives on the Palestinian scientific community and caused changes in the rate of scientific production and the types of scientific professions.

CHAPTER V
CONCLUSION AND RECOMMENDATION

This chapter is going to summarise the main research parts, summery of the working performance, summery of the main findings, recommendations. Whereas, the research attempts to understand the environmental culture of NNU and NEU as well as knowledge of environmental sustainability, which has become one of the most important scientific fields in these years due to the environmental problems faced by countries, such as floods, fires and climate change.

5.1. Summary of the Working Performance

Given that the research looks at the issue of environmental education that specifically examines environmental culture and environmental sustainability, the research is divided into several indicators in order to judge the results.

This work was done in this research by following the face-to-face interview method, which is one of the most accurate ways to collect data and analyse it due to the students 'reactions and responses, whereby the participants' are treated in a more serious way and there is no room for wrong information. Where all the data related to environmental culture and environmental sustainability were collected side by side.

The qualitative method was used to collect and analyse data, which depends on the quality of the sample and its suitability for a procedure to apply to the research, as the scientific literature related to the research was reviewed and relate it to this research. Some data was analysed using SPSS software to analyse some data using pie graphs.

5.2. Summary of the Main Findings

- NNU participants' have recorded a higher positive environmental attitude.
- NEU participants' have recorded a higher positive environmental knowledge.

- NNU participants' have recorded higher positive environmental skills.
- NNU participants' have recorded a higher positive environmental culture.
- NEU participants' have recorded a higher positive environmental attitude.

5.3. Recommendations

- The Ministry of Education in Palestine must initiate a plan for environmental education and work spicily to improve the environmental skills.
- The Ministry of Education in Northern Cyprus must make a plan for environmental education and work spicily on the environmental attitude and environmental knowledge.
- The Palestinian government should work on improving the sustainable environment.
- Work by the two governments in Northern Cyprus and Palestine to enforce laws that protect the environment.
- The work of voluntary, non-profit organizations that take care of the environment and related matters.
- Governmental supporting and caring for all environmental voluntary activities.
- Using external expertise to develop environmental skills and awareness, and the creation of environmental experts in order to control environmental issues in both countries.
- Working on developing recycling methods in both countries, as both countries suffer from problems in recycling waste.
- Quantization the use of pollutants for the environment among individuals.

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APPENDICES

Appendix 1. Ethics approval form

YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK KURULU

04.11.2019

Dear Subhi Ahmad Mahoud Salman

Your application titled **"Comparison of general views on environmental culture and sustainable environment of university students in Northern Cyprus and Palestine"** with the application number YDÜ/EB/2019/391 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol
Rapporteur of the Scientific Research Ethics Committee

Direnc Kanol

Note: If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.

Appendix 2. Questionnaire tool

Dear Student,

This research aims to determine the environmental behaviours of university students. In order to collect the data, this questionare was prepared in three section. Please write your opinions clearly on the spaces below. Your contribution towards this study is greatly appreciated, as it will add significantly to the value of this research. Your responses will be kept secure and will remain confidential. Thank you for your contributing.

Subhi Ahmad Mahmoud SALMAN
Master Student
Environmental Education and Management Department

PERSONAL INFORMATION FORM

Gender: Age:

Country: Your studying level (diploma, MS, PHD):

Have you ever taken any environmental courses before?

ENVIRONMENTAL CULTURE FORM

If you know that your job affects the environment in a negative way, could you change your job or change the action plan to be less effective on the environment? Why?

Would you pay more money for organic food for environmental protection and for your health? Why?

Have you ever separate the different types of waste in your home?

What will you do if you have seen anyone have through some wastes on the way?

In your opinion, should the governments allocate a part of country budget for the environment and the environmental issues?

Why some of springs and water sources have gone for those days? What is the solution in your opinion?

What do you know about the green buildings?

Which type of trashes can be recycled?

In your opinion how can you prevent the environmental pollution and its affection on your life?

If you have a chance could you make any environmental voluntary activities? What type for example?

How do you prevent the water pollution if they give you a chance?

What can we do to decrease the energy usage?

SUSTAINABLE ENVIRONMENT FORM

Have you ever thought to use or to buy an electrical car?

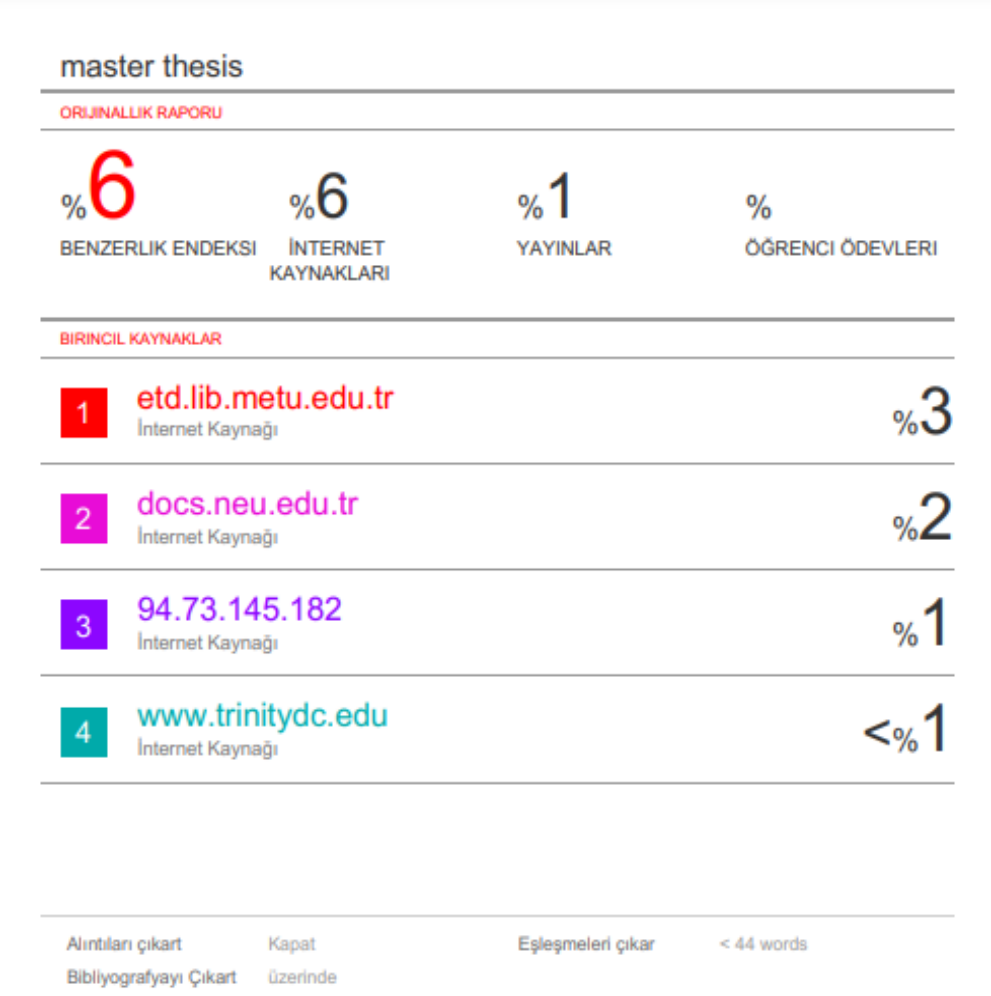
Have you ever used a plastic bag more than one time?

Do you use reusable bottles?

Have you ever used the recycled water?

Do you know the composting process?

Appendix 3. Plagiarism



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