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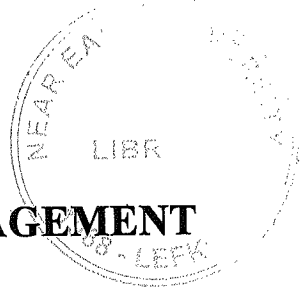

A RESEARCH ABOUT ATTITUDES AND BEHAVIORS OF UNIVERSITY STUDENTS HAVING DIFFERENT CULTURES TOWARDS THE ENVIRONMENT THROUGH SUSTAINABLE DEVELOPMENT

MASTER THESIS

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ABSTRACT

A RESEARCH ABOUT ATTITUDES AND BEHAVIORS OF UNIVERSITY STUDENTS WITH HAVING DIFFERENT CULTURES TOWARDS THE ENVIRONMENT THROUGH SUSTAINABLE DEVELOPMENT

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The aim of this research is to determine the environmental attitudes and behaviors of the university students with different cultures. This is a research prepared by asking students' opinions related to attitudes and behaviors towards the environment and the sustainable development. In other words, this research was prepared in accordance with survey model.

The population of the research is comprised of 300 university students with different cultures studying at Near East University in 2015-2016 academic years. In this research, the sustainable development survey and the environmental attitude and behavior survey were used as the data collecting tools. The scales, applied to the students, were comprised of 60 questions. In the survey with 58 questions, the first 10 questions were to get personal information 24 questions were to determine their knowledge about the sustainable development 17 questions were to determine their environmental attitudes and 7 questions were to determine their environmental behaviors.

The data obtained from the surveys was analyzed by using SPSS 20.0 program. While determining whether the participant students' knowledge about the sustainable development and the environmental attitude and behavior differs according to their genders, unrelated "t"-test was used; and while determining whether it differs according to the educational background of their parents, Anova, Scheffe, Manova, Wilks' Lambda Test was used.

At the end of the research, it was seen that the attitudes and behaviors of the university students with different cultures towards the environment and the sustainable development are still not sufficient.

Keywords: Sustainable Development, Environment, Environmental Problems, Environmental Education, Attitude, Behavior.

ÖZET

FARKLI KÜLTÜRLERE SAHİP ÜNİVERSİTE ÖĞRENCİLERİNİN SÜRDÜRÜLEBİLİR KALKINMA İLE ÇEVREYE YÖNELİK TUTUM VE DAVRANIŞLARI ÜZERİNE BİR ÇALIŞMA

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Araştırmanın amacı, farklı kültürlere sahip üniversite öğrencilerinin sürdürülebilir kalkınma ile çevreye yönelik tutum ve davranışlarının belirlenmesidir. Bu araştırmada, üniversite öğrencilerinin sürdürülebilir kalkınma, çevreye yönelik tutum ve davranışları ile ilgili görüşlerine başvurularak hazırlanmış bir çalışmadır.

Araştırmanın evrenini, farklı kültürlere sahip üniversite öğrencileri, örneklemini ise, 2015-2016 yılında eğitim ve öğrenim gören 300 üniversite öğrenci oluşturmaktadır. Araştırmada veri toplama araçları olarak sürdürülebilir kalkınma ile çevreye yönelik tutum ve davranış anketi kullanılmıştır. Öğrencilere uygulanan ölçekler 60 sorudan oluşmaktadır. Öğrencilere uygulanan 58 soruluk anketin ilk 10 sorusu kişisel bilgileri, 24 sorusu öğrencilerin sürdürülebilir kalkınma, 17 sorusu öğrencilerin çevreye yönelik tutum ve 7 sorusu ise çevreye yönelik davranış düzeylerini belirlemek amacıyla hazırlanmıştır.

Anketlerden elde edilen veriler bilgisayar ortamında SPSS 20.0 programı kullanılarak çözümlenmiştir. Araştırmaya katılan farklı kültürlere sahip öğrencilerin sürdürülebilir kalkınma ile çevreye yönelik tutum ve davranışları konusunda bilinç düzeylerinin cinsiyyetlerine göre farklılık gösterip göstermediğinin tespitinde ilişkisiz t-testi, anne-baba eğitimi durumuna göre farklılık gösterip göstermediğinin tespitinde ise Anova, Scheffe, Manova, Wilks' Lambda testi testi uygulanmıştır.

Araştırmanın sonucunda, farklı kültürlere sahip olan üniversite öğrencilerin sürdürülebilir kalkınma ile çevreye yönelik tutum ve davranışlarının orta düzeyde olduklarını yani henüz yeterli düzeyde olmadığını görmekteyiz.

Anahtar Kelimeler: Sürdürülebilir Kalkınma, Çevre, Çevre Sorunları, Çevre Eğitimi, Tutum, Davranış.

ACKNOWLEDGEMENTS

There are several problems in the environment we live in. The negative attitudes of the people have a great effect on these problems. We need a healthy environment to be able to maintain our lives in a healthy way. And, it is possible to have a healthy and clean environment through efforts of the people who have positive environmental attitudes and behaviors. At this point, it is inevitable to start environmental education at early ages.

In this research, the aim is to determine the environmental attitudes and behaviors of the university students with different cultures. I take all the responsibility of the studies I made during the process of this research, and I would like to thank to all who contributed to this research.

I thank sincerely to my mentor Dr.Fidan ASLANOVA who gave me alot of opinion and observed all the stages of my research scrupulously.

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ABBRIVATIONS

UN: United Nations

UNDP: United Nations Development Programme

UNEP: United Nations Environment Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNECE: United Nations Economic Council of Europe

UNIDO: United Nations Industrial Development Organization

NCSD: National Commission of Sustainable Development

FAO: United Nations Food and Agriculture Organization

IEEP: International Environmental Education Program

WHO: World Health Organization,

UNFPA: United Nations Population Fund

UNCTAD: United Nations Conference on Trade and Development

WB: World Bank

WTO: World Trade Organization

WWF: World Wild Fund for Nature

WBCSD: World Business Council on Sustainable Development

EFM: Environment and Forest Ministry

GAP: Southern east Anatolian Project

TC: Republic of Turkey

UE: Union European,

X: Arithmetic Average

F: Fragrance

(%): Percentage

t: t-Test

p: Significance Level

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CHAPTER I
INTRODUCTION

It is possible to define "sustainable development" as 'meeting the needs of present generations without restricting the opportunities of metting the needs of next generations'. According to Gündüz (2004), the sustainable development is the aims and methods of the economic development and industrialization comly with physical potential of our and being a development model which makes it possible to meet its own needs without jeopardizing the opportunities of the present and next generations. The concept of the sustainable development ecological, economic, socio-cultural and technological approaches in its wake. Ecologically, the sustainability of eco-systems is one of the fundamentals of the sustainable development. According to Taşkın (2010), natural sources can be renewed within distinctive cyclical systems. The most important aspect of these systems is more likely their ability of self-management. This aspect enables balance and sustainability of each system. These aspects and structures of the systems make it possible to absorb the internal effects and changes, and to adjust them. Therefore, pressure which may cause problems can come from outside the system.

One of the most important ways to contribute to the sustainable development process is to educate individuals. Because, through their mutual interaction with society, the individuals enable both their own socialization and the development of the society (Lucerne Beyannamesi, 2007). According to consensus increasing recently, environmental education should focus on "sustainable development" (Bonnett, 1999). It is possible to make students acquire sustainable and permanent behaviors by enabling them with actual independance in natural and social circumstances. In addition to this independance, individuals' knowledge, attitudes, behaviors, perception and values are also crucial for the sustainable development (Lucerne Beyannamesi, 2007). All these acquirements can be provided through education. In order to make each individual take responsibility for the sake of a sustainable future, it is important to rise the individuals' awareness of a sustainable world and life style. To be able to create this awareness, lessons and achievements about both the sustainable development and the environmental attitudes and behaviors should be disposed.

1.1. The Aim of This Research

The aim of this research is to determine the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development. Also, this research, aimed at analyzing changes in the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development terms of various parameters (e.g.education, gender, educational background of the parents, economic situation).

1.2. TheProblem

What is the level of the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development? Is there any kind of relationship between the demographic parameters such as education, gender, educational bacground of the parents, economic situation and the attitudes and behaviors of university students,form different cultural backgrounds, towards the environment and the sustainable development?

Based on the problem stated above, the sub-problems of this research are:

1. What is the level of the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

2. Is there any kind of relationship between the genders and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

3. Is there any kind of relationship between the class parameter and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

4. Is there any kind of relationship between the department they study in and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

5. Is there any kind of relationship between the educational bacgrounds of their parents and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

6. Is there any kind of relationship between the economic situation of their parents and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

1.3.The Importance of The Research

Using the sustainable development resources in a best way without wasting them is something which tries to provide interaction among activity of the natural resources, protection of the environmental quality, economic growth and the environment (Yıldıztekin, 2009). The sustainable development aims at enabling equality for both current generations and the future generations. Moreover, it gives priority to the poor for meeting present and future needs. In other words, the sustainable development lands the humans with using the resources they have in an effective way. While talking about "the sustainable development". This concept should be dealt with in several dimensions.

Providing the sustainable development is related closely to a sustainable education, and this relationship covers different extents. Demirbaş (2011) states that, different from the environmental education, educational curriculum for the sustainable development includes not only the environmental effects but also economic and social effects of usage of the natural resources and their results. This approach concerns everyone who has stronger environmental conscience, and who tends to utilize the natural resources.

Because the earth we live in would be damaged less and would live longer healthily when we bring up generations with environmental awareness, the environmental education gains importance much more. Education education is quite crucial about paving the required way to solve environmental problems. Therefore, environmental education is a process which could bring forth environmental knowledge, awareness, attitude and behaviors to the individuals as well as determination for taking action with the aim of solvingthe environmental problems (Gezer, 2006).

1.4.The Limitations

The limitations of this research are:

- The data obtained from this research are limited with 2015-2016 academic years.
- This research is limited with 300 university students who have different cultural backgrounds.
- The sources used in this research are limited .
- This research is limited with data collection tools applied within the research.

1.5.Assumptions

- The data collection tools developed in the research are suitable for the aim and topic of the research.
- It is assumed that the students answered sincerely to the data collecting tools applied in the research.
- It is assumed that the tools, techniques and methods used are suitable for the aim and context of the research.
- It is assumed that analysis results about validity and reliability of the tools used for collecting data are meaningful.

1.6. Definitions

The terms defined in this research have been used with the meanings stated below:

Sustainable Development,can be defined as 'the development that the current generations can meet their own needs without jeopardizing the next generations' ability to meet their own needs (Brundtland Report, 1987).

Education for the sustainable development,is the process that individuals, groups, communities, foundations and countries change their vision about the sustainable development positively so that the world would become much safer, healthier, more prosperous that people make effort to live in a sustainable way their contribution to democratic society increases and they acquire knowledge, ability and values required for supporting the sustainable attitude (UNECE, 2003).

The Environment,is the surrounding comprised of organic and inorganic materials that the living beings depend on with vital bonds, affect and are affected by (Güney, 2003).

The Environmental Education,can be defined as 'improving environmental awareness in all parts of the society; bring environmentally-conscious, permanent and positive changes in attitudes protecting natural, historical, cultural, socio-aesthetic values prividing active participation and taking charge in solving the problems (Alım, 2006).

The Environmental Attitude,is positive or negative tendency with the aspects of cognitive, emotional and behavioral that the individuals have to a certain person, object or situation (Kollmuss & Agyeman, 2002).

The Environmental Behaviors,are the real behaviors displayed for the protection of the environment (Haan et al, 1997., Erten, 2000).

CHAPTERII
RELEVANT LITERATURE

2.1. The Sustainable Development and Its Progress

The phenomenon of 'sustainability' holds qualification of an intellectual revolution because it brings a new countenance and a different vision to the concept of 'development'. The countries, having evaluated the economy within unconditional growth axis before, cannot act at ease as it was in the past. Now, various factors such as public opinion, environment and climate dominates international economic policies. Even just by this revolution, it is shown that the sustainable development has had a remarkable place in today's world. In this chapter, the phenomenon of 'the sustainable development' will cover the waterfront.

The sustainable development strategy has become a global issue for many years. It is necessary to comprehend better what the topic signifies in essence in order to take it up in detail and to evaluate it. Today's industrial revolution has emerged as the manifestation of the enlightenment and the ability of utilizing power of the nature. However, the mentality sprouting from that period is quite suitable for the circumstances of the era.The number of people was not that high quantitatively. Yet, relatively, the natural sources were limitlesThe industrialization movement developing under those circumstances and increasingly going on till today did also set ground for development of the global disaster.Because this new conditions of the planet housing about 7 billion people did not fit to the mentality manifesting in that era (Andersen et al., 2010). Hence, the idea of dealing with this concern bring up 'the sustainability' of the development.

Within the historical development process of the sustainable development perception, it is necessary to mention about the report named "Limitations of the Growth". As Alagöz (2007) relays, the first extensive notice with regard that there was requirement to include mutual dependence of economic and natural environment in the development policies was published in this report of the Rome Club. In the reports declared in 1972, it was questioned within the frame of a critical view towards the development ideology that until when the natural resources will last with all the increasing population, income and consumption. In this report, there was painted a hopeless picture by focusing on population,

industrial manufacture, food stuffs, raw materials and environmental pollution.The environmental problems were displayed, in the report, as a source threatening all the world. Change in the consumption of the resources was reccommended as the solution (Yıkılmaz, 2004). According to the report, the environment we live in would not be sufficient for the population increasing rapidly, and it would lose its inhabitable aspects in less than 150 years. Thus, if it is aimed at protecting and developing the natural environment, the growth rate should be decreased, or even, it should be stopped. This report called "Zero Growth Report" caused intense discussions between developed and developing countries because of approach differences, and it stimulated query among the economic development, the industrialization processes and the environment (İncedayı, 2004). Although this report has been criticized extremely, in a sense, it laid the foundation of the sustainable development by bringing the relationship between the environment and the economy into question inclusively. As the result of discussions through these processes, concept of "the sustainable development" was first started to be used widely with the report named "Our Common Future" prepared by World Commission on Environment and Development.

2.2. The Sustainable Development as A Concept

The concept of "the sustainable development" was first officially used in the report named "Our Common Future", which was published by the World Commision on Environment and Development (WCED) under the presidency of Norwegian Prime Minister. In the report which is called aldo "the Brundtland Report", the sustainable development is defined as "meeting the needs of today without making concession about meeting the needs of the future generations" (Aksu, 2011).

The assumption that the existing sources are limited but demands of the people are limitless is regarded as one of the facts which sets grounds for born of the economics. In the definitions trying to explain the sustainable development, the traces of this assumption is generally found. The sustainable development means 'programming to meet and to develop the needs of the future generations by providing abalance between humans and the nature without using up the natural resources' (Southeastern Anatolian Project [GAP], 2012). It is a development model meeting the needs of today without making concession about meeting the needs of

the future generations (www.unctad.org). In other words, the sustainable development is an economic development which protects the needs of the future generations while consuming the natural resources which protects the natural balance between economy and eco-system and which has sustainable aspects environmentally (Alagöz, 2007., Gürlük, 2001). In a quite general meaning, the sustainable development is associated with policies such as removing the poverty, providing the equality in distributing the advantages obtained from the natural sources, preventing the rapid population growth, and developing environment-friendly technologies (Yıkmaz, 2011).

The most important element drawing attention in the definitions of the sustainable development is the word "needs". Almost all the definitions are formed around this word. The needs of current and, especially, future generations are emphasized. On the other hand, sensitivity about the environment comes into prominence. Briefly, it is seen that the sustainable developmen is in search of balance between the environment and the development and the definitions center upon these two notions.

Until 1970, the assumption that the natural resources are limitless was dominant in states' policies. In this way, it was aimed at achieving economic growth by providing an increase in manufacture. With this approach, the environmental problems were considered as natural results everyone needed to bear and policies about removing the environmental pollution instead of preventing it were adopted. After a short time, the environmental concerns and its damages -being assumed that they were just domestic- passed over the national borders and therefore, the environment has gained importance internationally (Yıkmaz, 2011).

2.3.The Extends of The Sustainable Development

The sustainable development emphasizes a holistic, fair and prescient approach in all the stages of the desicion-making proces It draws attention not only to the strong economic performance but also to intergenerational equity. It includes the integration of social, economic and environmental goals of public and private sector into the decision-making processes in an integrated and balanced way. During the World Commission on Environment and Development in 1987, the development was defined as "the developmet meeting the needs of today without making

concession about meeting the needs of the future generations". In this scope, the sustainable development is (T.C. Development Ministery, 2012):

- A process improving level of welfare with which the fundamental needs of people are met in an appropriate way, and with which economic competitiveness gets stregthened.

- A process improving the quality of life and including disadventageous fair groups socially.

- A process protecting and improving the environment and, especially, the natural systems which support the life and providing abalanced development between the integrated intergenerations.

The sustainable development is a quite new concept as the strategy of universal development and organization, and itcould be analyzed in terms of social, ecological and economic views (Karaaslan, 1999):

- ***Social Sustainability;*** is meeting the fundamental needs of humans such as food, drink, shelter, and the social and cultural needs such as high-level safety, independence, occupation and recreational activities. The social sustainability focuses more on the needs of the individuals.

- ***Ecological Sustainability;*** means the sustainability of productivity and functionality of biological systems and eco-systems. In long term, the ecological sustainability is required for the protection of genetic sources and biological variety while it is required, in short-term, for providing the eco-systems to be permenant for a long time.

- ***Economic Sustainability;*** The most important point in sustainable economy is the raise in population. The development of natural-human abilities to achieve technological innovation and provide an economic growth.

Table 1: The Extend of The Sustainable Developmet

A. Environmental Extent	B. Economic Extent	C. Social Extent
Chlorine increase in the Atmosphere	Industrial Economic Activity Increase	Population, intensity, increase rates
Acidity increase in the Atmosphere	Number of vehicles	Poverty
Ozone particulates, Nitrogen Dioxide Compounds	Energy Consumption	Household without electricity
Rural and Urban Areas	Rate of Renewable Energy	Electing Population
Habitat Differentiation	Air Movement	Participation in the elections
Assumptions of bearing capacity	Transportation Fees	Rural-Urban Population
Specific Ecosystem Indicators	Deforestation	Number of Telephones
Radiation	Pollution Reduction Expenses	Undernourish Children
Protection Areas	Trips, Leisure Time	Literacy
Metal reserves	Production of Wood	Life Time, infant death
Energy Amount	Water Supply per capita	Amount of Energy
Bio-variety	Erosion	Bio-variety
Animal Population	Agricultural Production	Animal Population
Endangered Species	Energy Usage in Houses	Endangered Species
Basic Pollutants	Energy Usage of Highway Transportation	
Heavy Metals	Fossil Fuel Usage in Vehicles	
Nitrogen and Potassium phosphate balances in the soil	Food Production	
Soil Quality Indicators		
Farm Land Loses		

Source: Aksu (2011)

Relationship among economic, social and environmental extends is also important about providing a sustainable development. Economic and social extends are in relation with income distribution, reduction of the poverty and solutions of unemployment problems. When this socio-economic circumstances of the society becomes steady, attitude towards the environment will become sustainable. Economic and environmental extend forsee that the problems caused by environmental valuation and economic activities should be interiorized. Of course, there would also be negative effects while all the economic activities increases the welfare level of the society. As outcome in certain aemounts is demanded from the natural resources for realizing the economic activities, there is also acertain amount of waste material being realised to the nature. To lay bare the problems (extarnalities) caused by all these activities is also for the sustainable development. The sustainable development requires the adoption of a series of activities set for the improvements which need to be achieved from the human welfare in long-term.

Economic activities aiming at short-term profits which are harmful for the environment opt out of the sustainable development strategies (Gürlük, 2010).

2.4.Principles and Aims of The Sustainable Development

It is not possible to think the principles and aims of the sustainable development apart from each other. Each principle is indicative of a certain aim. Therefore, there is a rational correlation drawing attention between the principles and the aims. On the other hand, where the principles and aims of the sustainable development mentioned in national and international texts are analyzed, it is seen that similar aims are tried to be expressed with different words. The structure of 1992 Rio Declaration, which is accepted as one of the constitutional texts of the sustainable development, is composed by ecological, social and economic goals. The Declaration, comprised of 27 principles, especially emphasizes the environment (7th section of the declaration is directly about the environment) states that the development should be permanent and balanced (8th and 9th sections) land the youth and women with responsibility about environmental sensibility (20th and 21st sections) and draws attention to the international cooperation for the sake of creating an environment-friendly development (14th section) (United Nations, [UN], 2012).

The principles and the aims of the sustainable development, introduced under the roof of the UN, form an integrity in essence. Development goals similar to the ones in Rio have been adopted also in "Our Common Future - Brundtland Report" (Aksu, 2011):

- Stimulating the growth,
- Changing the qualilty of the growth,
- Meeting the fundamental needs about employment, food, energy, water and health,
- Ensuring a sustainable population level,
- Protecting and enriching the resources,
- Re-directing the technology and managing the risk,
- Combining the environment and the economy during decision-making proces

It is seen that the EU also acts in accordance with the similar aims and principles about the sustainable development. Thus, national and international texts express the same sense and opinion with different words. Protection of the environment and making the development sustainable draw attention to common aims(Yıkmaz, 2011).

2.5.The Sustainable Development in The International Formal Texts

The sustainable development efforts, made for taking all the world countries into the scope of it, and also the activities made in the last 15 years show that the sustainable development realizes the presence of international organizations and developed countries. Primarily, United Nations (UN) and its sub- such as United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Industrial Development Organization (UNIDD), United Nations Food and Agriculture Organization (FAO), World Health Organization (WHO), United Nations Population Fund (UNFPA), United Nations Conferance on Trade and Development (UNCTAD), Organization of Economic Co-operation and Development (OECD), World Bank (WB), World Trade Organization (WTO), World Wild Fund for Nature (WWF), World Business Council on Sustainable Development (WBCSD) and Union Europeen (UE) work on the sustainable development intensely (Yıkmaz, 2011).

The activities conducted in the international platforms give an important opinion on the nature and evolution of the sustainable development. The adventure, stareted in Stockholm in 1972, has reached to its 40th year with the meeting held in Rio in 2012 (Rio+20).As a result of the decisions made and the series of conferences held under the international organizations' responsibilityduring this process, the sustainable development has acquired a supranationalist qualification. Thus, looking into the subject also with this extend would contribute to see the picture more clearly. It would be benefical to present some turning-points by following a chronological order in terms of integrity of the subject.

2.6.The Sustainable Development and The Environment

The pressure, created by the capitalist growth in the ascendant, on the ecological balances has set ground for better understanding of the relationship between the environment and the development. It is seen that increase in GSMH doesn't mean development directly, and and this matter -regarded as a quite crucial indicator of the welfare- causes severe environmental damage. Therefore, this situation shows that the developmental strategies applied need to be reconsidered (Zafir, 2014).

When the concept of 'environment' is perceived in its most general meaning, it includes both biological (related to all the other living beings) and non-biological (related to the elements such as air, water etc.) general life conditions. All the problems related to this surrounding are called 'environmental problems'.Various ecological problems have international qualification, and thus, they hold qualifications exceeding the political boundaries which are the symbols of the national independence of the countries. This situation reduces fairly, in terms of states, the importance of domestic and foreign policy discrimination related to the environmental problems (Sönmezoğlu, 2000).

The development is undoubtedly a high goal that all the countries yearn. Yet, the main aim is to improve the living standards of the humans. Therefore, according to today's perception, instead of rapid development, long-term sustainable development must be aimed no matter what happens. And, this makes the application of an industrialization model damaging the environment least (Seyidoğlu, 2003).

It is observed that the humans cause significant changes in the physiological structure of the planet they live on after the developments occuring recently. Because of some activities caused by human factors, the environment is affected negatively. The changes occuring in the chemical structure of atmosphere, genetic defects in species, the fact of increasing extiction of the species, some troubles in sustained transformation that some important materials maintain through oceans and the atmosphere are the problems situated in the center of these developments, and if these processes keep going on, most of the problems to occur will be irreversible (Sönmezoğlu, 2000).

2.7.The Environmental Problems

From the second half of 20th century, one of the most important points-or maybe, the most important one which has made the humans consider about the dazzling development of the industrialization is the environmental pollution. Of course, the creation of different scenarios and the evaluation of the sustainable development in this respect are not bare coincidences.

It is not right to consider the environmental problems as the result of only rapid industrialization and industrial revolution. Not only uncontrolled development of the industry, but also insufficient progress cause ecological problems. For instance, the results such as drinking unhealthy water, unconscious destruction of forests, excessive usage of the soil without fallowing could be regarded as the indicators of underdevelopment. In this respect, it shouldn't be ignored that the environmental problems are not just a domestic matter but an international one. Hence, the pollution occuring in seas, oceans, lakes, rivers gets beyond the limits, and disturbs the neighbouring countries. In so much that a river used as the source of drinking water by a country could be a conduit into which industrial waste is disposed by another country. Naturally, the principle of problems could be a discussion matter in international platform by acquiring bilateral, and even, multi-lateral qualification (Seyidoğlu, 2003).

Researches show that there is a strong relationship between the environmental pollution and the population growth. The world population has increased from 1 billion to 2 billions in 130 years. Yet, today, there has been increase of 1 billion just in 10 years. And, naturally, this situation has brought some problems with it. The more the population is, the more the nutritional production is required. The mount of the energy used increases; the rate of domestic waste disposed to the nature also increases and the sources of drinking water are consumed rapidly. Reduction of natural resources transforms the environmental problems into international politic problems. From time to time, rivers such as Nile, Firat and Asi caused a tension increase in Middle East because of excess demand occuring as a result of overpopulation. Just at this point, mismanagement of existing resources should be taken in consideration as well as the population growth (Sönmezoğlu, 2000).

In this day and age, the phenomenon of sustainable development is the one which provides causal connection between the economic development and the environment. Very few states claim that there is no relationship between these two.

Some of them make such a claim just for avoiding the cost caused by the environmental pollution and the others make such a claim just because of ideological reasons (Sandbrook, 1991., Sönmezoğlu, 2000). This connection established between the economy and the environment has provided the sustainable development to be widely approved in international platform. In essence, the basis of the matter is constituted by this consensus because it is important to accept the precence of a problem to solve it.

In order to provide the sustainable environment, an ecological planning becomes obligatory. Thussame precautions need to be taken (Karaaslan et al, 1999):

- The natural environment should be protected and the defected parts should be revived.
- An economic and ecological benefit-cost system should be prepared.
- Domestic production and life style should be supported.
- Development of Ecologically conscious societies should be supported.
- There should be established more active communication, transportation and production systems.
- Renewable sources should be developed.
- An active recyclinng mechanism should be established.
- A participative management mentality should be adopted.

Given these realities, it is seen that the possibility of living in a healthier environment for the next generations decreases day by day. However, the environment, which is the greatest part of sustainable development, can be made sustainable with the help of rational policies. At this point, it is required to take the radical steps mentioned. Because negative externalities show up as the unavoidable result of production and consumption activities. Instead of adopting to this situation, the externalities should be internalized, or in other words, ways to add them to the costs should be searched. In this day and age, solution offers have been discussed and sometimes, there is found application area. In this regard, it is seen that market

economy is not efficient for the prevention of the environmental pollution which is a negative externality, and the conviction that public power should interfere in the problem has been spreading (Bal, 2012).

2.8. Environmental Education

2.8.1. Relationship Between The Environment and The Humans

The environment, which has existed since the first living being, is the surrounding where all the living beings live in and maintain their vital activities. While performing those activities, the living beings are consistently in interaction with the nature. Despite this consistent interaction, the environment did not make any trouble for a long time.

Yet over time, rapid growth in world population, unhealthy urbanization and industrialization and in parallel with them, the natural resources reducing or disappearing have created crucial environmental problems. Efforts to find solutions to these problems increasing with the environmental problems have deduced the concept of environmental education by focusing on the human who is the main reason of the problems over time. (Environment and Forest Ministery [EFM], 2007., Çolakoğlu, 2010., Doğan,1997., Yücel & Morgil, 1998).

All the living beings in the world maintain their lives in interactionin with a surrounding comprised of organic and inorganic materials. This surrounding which the living beings are bound to vitally, and they affect and are affected by from various ways is called "environment" (Güney, 2003). In other definition, it is all the surrounding from house to all of the world where the living beings live in (Özey, 2001).

In order to improve the level of welfare, humans challenge with the environment consistently by using the technology and change it. The environmental problems, which threaten the future of humanity every passing second, occur as a result of this challenging and changes. Humans have been playing a great role on the occurence of the environmental problems. However, minimizing these problems is also the responsibility of the humans. Therefore, the humans should be brought forth to awareness of the environment at their mothers' knee, and they should be grown up

as responsible individuals. And, this can be possible just through an efficient environmental education (Alım, 2006).

The environmental education aims at developing sensibility about protection and usage of the natural surrounding, and to change the individuals' behaviors and attitudes in a positive and permanent way (Bilgi, 2008).The Primary objective is to develop environmental awareness, sensibility about protecting the natural surrounding (Başal, 2003). In other words, environmental education can be defined as developing environmental awareness in every segment of the society bringing positive, permanent and environment-friendly behavior changes protecting natural, historical, cultural and socio-cultural values providing active participation and taking charge in problem-solving (Alım, 2006).

2.8.2.Historical Development of The Environmental Education

From the beginning of 70s, major leaders of scientific, politic and educational fields have started to recognize the increasing environmental problems and their results. In some countries, the conception of "the environmental education" was approved, and environmental education programmes were developed (Ünal, 1999).

The conception of the environmental education started to be discussed at national and domestic levels in 1970.In the "United Nations Human Environment Conference" held in Stockholm in 1972, this conception started to acquire a global extent.In accordance with the suggestions of StockholmConference, UNESCO Environment Department conducted a survey named "Evaluation of The Sources for The Environmental Education Needs and Priorities of The Member States" in 136 member countries in 1975.The aim of this survey was to provide knowledge, which would set ground for the steps to be taken in the future, to experts and authorities -who play role in the environmental education- by taking the related difficulties into consideration with an educational move at global and domestic level. As a consequence of the survey, it was seen that the existing environmental education programmes were not efficient both quantitatively and qualitatively (Ünal et al, 2001).

According to Agreement of Tiflis Conference published by UNESCO in 1978, "the environmental education should be a program which takes the natural and social

sides of the environment into consideration; lasts life-long; includes interdisciplinary perspective analyzes great environmental problems from national, regional and international perspectives taking the historical aspect of the region into consideration while studying on the environmental problem emphasizing the importance of national and international cooperation in solving and preventing the environmental problems giving opportunities to students for planning, making decisions and accepting the results to acquire learning experience explaining the importance of problem-solving ability, values and knowledge obtained at early ages helping the students discover the signs and reasons of the environmental problems emphasizing the importance of analytical thinking and problem-solving ability because of the complexity of the problems using problem-solving and practical activities in the environmental education and emphasizing that the environment should also be take into consideration within the development plans of the countries" (UNESCO, 1980).

2.8.3. The Importance of TheEnvironmental Education

The environment has a multifaceted, extensive and complex nature. Therefore, environmental education is also multifaceted, extensive and complex. Thus, environmental education differs from person to person, from organization to organization.Herein, there are various definitions for the environmental education.

Environmental education can be defined as developing environmental awareness in every segment of the society; bringing environment-friendly, permanent and positive behavior changes; protecting natural, historical, cultural, socia-aesthetic values; providing active participation; and taking charge in solving the problems (EFM, 2004).

Environmental education is an education for providing everyone at any level to understand the environment and to realize their own place and role within the environment making them aware of all the factors affecting the environment as much as possible (Uğurlu & Demirer, 2008). Environmental education is the process in which attitudes, value judgements, knowledge and abilities are developed environment-friendly behaviors are displayed and the results of all these are seen (Öztürk, 2008).

As it is understood from all these definitions, a systematic, efficient and rooted environmental education is the only way which makes it possible to inform the society and raise their awareness about the environment to bring positive behaviors to the people about protection of the environment; and to make them perceive that the environment should be protected not polluted (EFM, 2007., Bayazıt, 2006., Sülün, 2002). Thus, the environmental education is mainly for attitudes, behaviors and awareness of the individuals towards the environment.

2.9. Approaches for Environmental Education

In general, 3 different approaches are known about environmental education (Huckle, 1993):

1. Environmental education encourages physical and humane systems and the perception and learning of mutual interaction of these systems. This approach can be defined as "Education for Environmental Management and Control".

2. Education through the environment provides the students to acquire various abilities, and in general, it encourages interests and occupations in which the education is used as a source for learning through student-centered field trips. This approach can be defined as "Education for Environmental Awareness and Interpretation".

3. Environmental education is built on the previous two approaches which bring an environmental ethic and courage to encourage the students to be responsible for their behaviors, and include subjects based on information. This approach can be defined as "Education for Sustainability".

2.10. Objectives, Aims and Principles of Environmental Education

Objectives, aims and principles of environmental education approved in the Tiflis Conference have been taken into consideration by many countries during preparation process of curriculum. Because this conference was the first intergovernmental conference made about environmental education, decisions of which are regarded as universal. The Tiflis Conference is still valid, and manifesto of the conference is used as the base in the preparation of many curriculums. Objectives, aims and principles of environmental education, which were approved

in the Tiflis Conference and take place in the manifesto, are mentioned below. The objectives of the environmental education are:

- To develop economic, social, political and ecological solidarity consciousness in urban and rural areas,

- To provide opportunities for each individual to acquire knowledge, value judgement, attitudes, behaviors, responsibilities and abilities required for protecting and recovering the environment,

- To form new behaviour patterns in the individuals, the groups and the society as a whole towards the environment (Intergovernmental Conference on Environmental Education-Final Report, 1978). Classified aims of the environmental awareness:

Awareness is to help the individuals and social groups acquire awareness and sensibility towards the environment and its problems.

Knowledge is to help the individuals and the social groups acquire knowledge and obtain various experiences about the environment and its problems.

Attitude is to help the individuals and the social groups acquire certain value judgement and sensibility for the environment, and to motivate them for active participation in protecting the environment.

Behavior At this stage, the individual enables to decrease the negative effects caused by the environmental problems by using the knowledge they have to change their existing environmental behaviors.

Ability is to provide the individuals and the social groups to recognize the environmental problems and to acquire ability for solving the problems.

Participation is to provide the individuals and the social groups to participate actively in solving the environmental problems (Intergovernmental Conference on Environmental Education-Final Report, 1978).

And in the principles determined within the scope of these objectives and aims, it is stated that environmental education should last life-long; it is an interdisciplinary approach and how it should be in a general meaining (Intergovernmental Conference on Environmental Education-Final Report, 1978).

There has been other meetings about environmental education after the Tiflis Conference. In those meetings, objectives, aims and principles of environmental education were discussed. However, there weas no meeting which is as extensive as the Tiflis Conference about environmental education.

2.11. Education for The Sustainable Development

Besides being one of the human rights, educatution is pre-condition for the sustainable development, and it is also an efficient tool for well management, decision-making based on knowledge and development of the democracy. Education for the sustainable education provides our world to become safer, healthier and more prosperous by changing viewpoint of individuals, groups, communities, organization and countries in favor of the sustainable development and improves life quality of the humans. Education for the sustainable development could provide more opportunities for critical thinking, awareness and authorization about discovering new vision and concepts and developing new methodsand tools (UNECE, 2004).

After the conception of the sustainable development was approved by the UN General Assembly in 1987, the conception of 'education for the sustainable development' is also added to the agenda. Nevertheless, the main progress about education for the sustainable realized when the UN declared the time between 2005-2014 as the "United Nations: 10 Years of The Education for The Sustainable Development" (Alkış, 2009). Based on this, in this chapter, firstly the progress of the conception of education for sustainable development in the historical process, and later, constituents, key conceptions of these programmes, the importance of interdisciplinary approach of the program and the adoption strategies of the sustainable development are focused on.

2.12.Constituents of Education Programmes for The Sustainable Development

As it is mentioned before, accepting the importance of education for the sustainable realized when the UN declared the time between 2005-2014 as the "United Nations: 10 Years of The Education for The Sustainable Development". Today, many educational organizations work on shaping the curriculums in a way which would include the sustainability (UNESCO, 2005).

A curriculum shaped in the context of the sustainability should include the principles of the sustainable development. The principles in the Rio Report are an example to this. The curriculums, re-shaped by following these principles and associating with the sustainability, embrace the aims of civil society about the matters such as environmental awareness, social tolerance and equity, society-based decision-making and improving the quality of life. Moreover, re-shaped curriculums contribute to create a labor force potential which could increase the nations' options within the national economic sustainability plans (Mc Keown, 2002).

Education for the sustainable development includes much more than environment, economy and society related knowledge. Also, it deals with sustainable living ways of the humans, and acquirement of abilities, viewpoints and values which could motive and quide themfor participation in a democratic society and seeking a sustainable life style.

Education for the sustainable development requires to study on both global and domestic subjects. Thus, all the five elements (knowledge, ability, viewpoints, values, subjects) must be dealt with by including the sustainability within the re-shaped curriculum. If it is required look at all these elements of re-shaped education under the hood in order to deal with the sustainability (McKeown,2002):

Knowledge: The sustainable development includes the environment, the economy and the society.Therefore, the individuals need basic knowledge related to physical sciences, social sciences and human sciences in order to understand the principles of the sustainable development, how to realize them, related values and the results of adoption. The knowledge being based on traditional disciplines contributes to the education for the sustainable development.

Subjects: Education for the sustainable development mostly focuses on environmental, economic and social problems threatening the sustainability of the planet. Most of these key subjects were determined in the Rio World Summit, and took place in Agenda 21. for sustainable development all these points releted to local issues should be included in all educational programs.

Abilities: For the sake of being successful, the education for the sustainable development needs much more than just teaching these subjects. Education for the sustainable development should bring practical abilities to the individuals, which would make possible for them to continue their education even after the school, to have sustainable living ways and to live a sustainable life style. However, these abilities could change in accordance with the circumstances of the societies.

Viewpoint: Education for the sustainable development includes crucial viewpoints to perceive not only global subjects but also domestic subjects in global context. Each subject has both a past and a future. To see that most of the global subjects which are related with each other, to search for the underlying reasons of the subject, and to make possible predictions according to different scenarios for the future are among the parts of education for the sustainable development. For instance, exceeding consumption of paper products causes deforestation which is thought to be related with the global climatic changes.it is quite important for education for the sustainable development to be able to evaluate this matter in terms of different parties. To be able to evaluate this matter from different viewpoint in addition to ours blaze the trail for national and international perception.

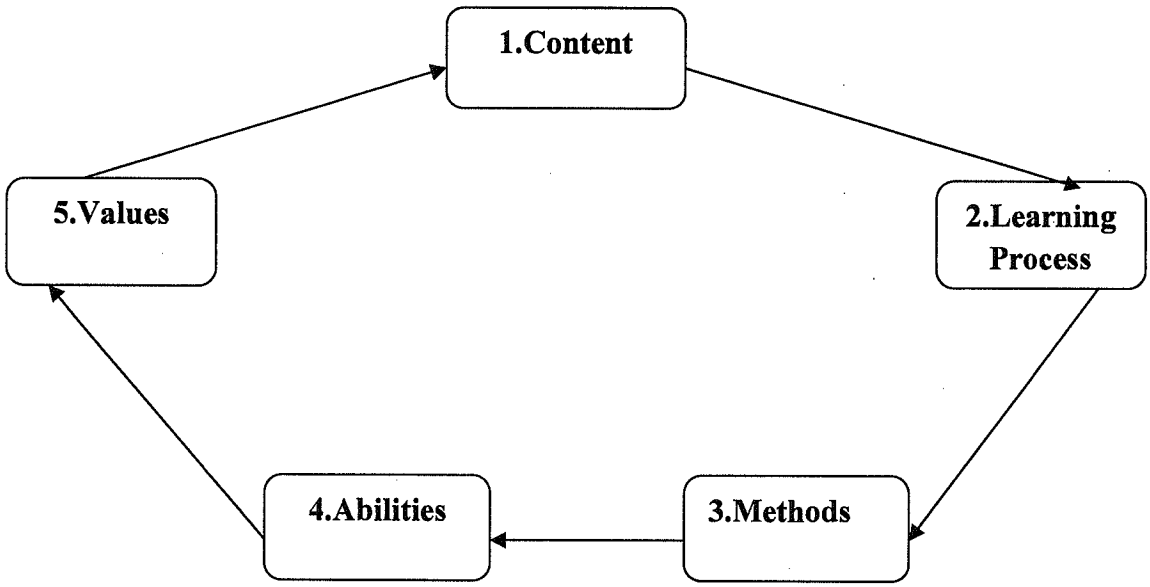
Values: Values are also one of the supplementary parts of education for the sustainable development. In some cultures, the values are taught at school in a clear way. Nonetheless, in other cultures, the values are modelled, explained, analyzed or discussed even if they are not taught clearly. In both situations, perception of the values is important to understand not only our own world view but also others' world views. To perceive the values of the society we live in and the values of the people all over the world for the sake of perceiving our own values is the basis of education for the sustainable future.

Balanced development paying regard to the environment and the natural resources; meeting basic needs of humans who live in especially underdeveloped and developing countries recovering the life standards and most importantly, leaving a healthy and safe surrounding to the future generations as a legacy, besides creating a healthy and safe surrounding for all the countries areamong the primary aims of the sustainable development. It is possible to realize all these not only by positive changes in our perception about industrialization, growth, consumption and population yet also by abstract, cultural, psychological and intellectual changes such as awareness, sensibility and morality (Atasoy, 2006).

"Education for the Sustainability"dese not only include an integrative approach, but also requires openly acception of different views by the people who depend on their own approaches and value judgementsin this process and interaction (Demirkaya,2006) .

Similar to McKeown, Paden (2000) embraces the sustainability in the frame of 5 main topics. As it is seen in Table 1, these topics are:

Figure 1: Constituents of Education Programmes for The Sustainable Development



Source: Paden (2000)

2.13. Key Conceptions of Education for The Sustainable Development

All the education programmes for the sustainable development including education for the sustainable development should take the environmental, economical and social conditions into consideration on a local scale. Education programmes for the sustainable development should be created locally instead of taking other countries educational programmes as are (UNESCO, 2005). Nonetheless, it is required to have some key conceptions in educational programmes for the sustainable development. Seven key conceptions of the sustainable developments are (Oxfam, 2009):

1. Interdependence: Perceiving how the scales from local to global, the environment, the economy and humans are interdependent to each other.

2. Citizenship and Administration: Understanding the importance of taking responsibility individually to make the world better.

3. Rights and Needs of The Future Generations: Perceiving what should be done for our own needs and next generations' needs.

4. Variety: Cherishing and respecting both the human variety (cultural, social and economic) and bio-variety.

5. Life Quality: Accepting that global equity and justice are the basic elements of the sustainability, and the fundamental needs should be met on the global scale.

6. Sustainable Change (Development and Bearing Capacity): Perceiving constraint of the resources and how this affects life styles of the humans, industry and commercial.

7. Balance, Vagueness, Precautions: Understanding the vagueness and need of precautions in actions

Table 2: Education-Related Conceptions for The Sustainable Development

Justice	Habitations
Infrastructure	Endangered /Endangering Species
Acid Rains	Population Movement
Land Use	Population & Population Growth
Wastes/Waste Management	Organic Agriculture
The European Union	Deforestation
Food Safety	Radioactive Pollution
Bio-variety	Recreation
Environmental Ethics	Simple Life
Environmental Pollution	Health/Alternative Medicine
Relation of Environment & Development	Industrialization
Desertification	Wars
Values	Civil Society
Change & Sustainability	Water Sources
Democracy	Crimes and Crime Rates
Natural Disasters	Sustainable Development
Usage of Natural Sources	Sustainable Life Style
Cycles	Sustainability
Education	Bearing Capacity
Ecological Footprint	Technology
Economic Activities	Fundamental Needs
Economic Development	Soil Failure
Ecosystems	Tourism / Eco-tourism
Energy Production & Consumption	Transportation
Energy Sources/Alternatives	Consumption
Erosion	National Parks
Recycling	International Agreements
Migration	International Cooperation
Climatic Change	Rain Forests
Human-Environment Interaction	Life Quality
Human Rights	Renewable/Non-renewable Sources
Urbanization	Poverty
Culture and Intercultural Dialogue	Poisonous Chemicals
Globalization/Settlement	Agriculture

Source: Alkış (2009).

When the Table above is analyzed, it is seen that almost all the conceptions stated have geographic extent. Nonetheless, it is also possible to deal with some of the content strands such as wars, democracy in terms of the fields such as history, citizenship and law.Based on this, it is seen fit to teach the conceptions -which will be dealt with in education for the sustainable development- by using an interdisciplinary approach including all the educational programmes.

2.14. Related Researches

There have been several researches about environmental education and the sustainable development in both inland and abroad. Some of these researches are mentioned below.

2.14.1. Researches Related to Environmental Education

In a research conducted by Eagles and Demare (1999), it was detected that ecological and moral attitudes towards the environment have relation with talking about the environment at home, watching scenics and reading about the environment. While there was found that there is no difference in ecological attitude by gender, girls had higher points in moral attitude. Also, it was detected that 1-week-long rest camp program did not make any measurable difference in ecological and moral attitudes.

In one of his researches, **Erten (2002)** tried to find out how much the students are aware of protection of the environment by uanalyzing the attitudes towards protection of the environment and detecting the factors having effects on these attitudes. Moreover, he also researched whether the families set an example for their children with positive behaviors they have towards the environment. This research was conducted in 13 schools in Ankara with the participation of 671 students from 6th, 7th and 8th grades in 2012 spring term. Data was collected through the surveys. After analyzing the data, it was concluded that the parents do not inform their children about air pollution it is not a good example for the children -from whom we expect positive environmental behaviors- to buy metal or plastic cans being thrown after usage for once the students have low levels of positive environmental behaviors providing the wastes to be recycled and most of the students check the tap after drinking water.

Grodzinska et al. (2003), conducted aresearch on, the effects of school training program on environmental knowledge, attitudes and behaviors of primary school students, their parents and teachers. Data showed that the program improved the students' knowledge. As a result of the research, it was confirmed that school environmental training program could be efficient in progress of the behaviors and the attitudes of the students and their parents.

Tuncer et al, conducted aresearch on **(2004)**, the environmental attitudes of 6th graders living in urban and rural areas of Ankara. The research was conducted on 138 students chosen from 4 schools in Çankaya and Mamak. Data was collected with a scale. As a result of the research, there was found a meaningful difference between the students living in rural and urban areas.

In his research **Gökçe et al. (2007)**, used the scale they developed in order to determine the environmental attitudes of primary school students -which named "Environmental Attitude Scale for Primary School Students (DEAS). The population of the research was comprised of 8th graders studying in elementary schools of Eskişehir in 2005-2006 spring term and for the sample of the research, 789 of 8^{th} graders were chosen from 18 elementary schools. The collected data was analyzed with SPSS package program; and it was confirmed that the environmental attitudes of the students diffirentiate according to their genders, not to the educational bacground and income level of the parents.

Alp et al. (2008), conducted aresearch on the environmental knowledge and attitudes of primary school students, the effect of socio-demographic parameters on these and the environmental behaviors of the students were analyzed. 1140 students from 18 schools in Ankara were chosen and data was collected with scales. The research showed that the environmental behaviors of the primary school students are independent from their environmental knowledge.

In one of their research, **Atasoy et al. (2008), they** aimed of determining the environmental behaviors and attitudes of 6th, 7^{th} and 8^{th} graders. As the research sample, 1118 students from 6 schools in Bursa were chosen. Data was collected with scales named "Environmental Knowledge Test" and "Environmenta attitude Test". As a result of the research, it was detected that the environmental knowledge and attitude level of the students is not efficient.

In one of their research, **Kasapoğlu et al. (2008)**, they analyzed the relationship between the environmental attitudes and behaviors of students in Turkey. The research was conducted on 248 students studying at 8^{th} grade. Data analysis, collected via scale, showed that the realtionship between the environmental behaviors and attitudes of the students is not that strong.

In a research carried out by **Uluçınar et al. (2008)**, they aimed at analyzing the environmental knowledge and attitudes of 7th and 8th graders, chosen in Amasya in 2005-2006 school years, in terms of various parameters. Data was collected via the environmental knowledge and attitude scale. At the end of the research, there was found no meaningful difference in the environmental attitudes of the students by grade and gender. On the other hand, there was found a meaningful difference in the environmental knowledge by grade while there was no by gender. There was found a meaningful difference by school parameter while there was no by educational background of the parents.

In the post graduate thesis prepared by **N. Yıldırım (2008)**, the effect of environmental education lessons, which were prepared based on the environmental problems, on the environmental attitude of primary school students were analyzed. The sample of the research was comprised of 51 students chosen from Yüzüncü Yıl district in Ankara. The students were exposed to environmental education lessons in 2006-2007 school years. Before and after the application, the students filled the environmental attitude surveys. At the end of the research, it was confirmed that the environmental education lessons had positive effects on the environmental attitudes of the students.

In his post graduate thesis, **Arslanyolu (2010)**, researched whether the environmental attitudes of 6^{th}, 7^{th} and 8^{th} graders change according to multiple intelligence theory. Also, he analyzed the environmental attitudes of the students in terms of their genders, grades and socio-econommic situation. In the research conducted with this aim, 180 of 6^{th} graders, 163 of 7^{th} graders and 147 of 8^{th} graders studying in Erzincan in 2008-2009 school years were chosen as the sample of the research. The data collected through the Environmental Attitude Scale and Multiple Intelligence Inventory was analyzed with SPSS 15.0 program. There was found no meaningful difference in the students' environmental attitudes by their genders, grades and socio-economic situation. At the end of the research, it was seen that the students' environmental attitudes increase positively when the improvement level of the intelligences other than the verbal intelligence increases.

In one of his researches, **Özdemir (2010)**, examined the effect of the environmental education program based on nature experience on perceptions and behaviors of

primary school students towards the environment. The research was carried out with 20 students from 6th and 7th grades, who are studying in Akyaka, Muğla in 2006-2007 school years. The data was collected via "environmental perception scale" and environmental behavior observation form" developed by the researcher as well as the "stories" the students were asked to write. At the end of the research, it was found that the perception of the students of the environmental values and their risks developed yet, there was no significant change in their perception about using the environment consciously. Also, it was detected that the students' tendency about responsible behavior towards the environment increased.

In his post graduate thesis, **Tarsus Bas (2010)**, analyzed primary school students' attitudes towards the environment depending on 4 parameters. The sample of the research was comprised of 817 students from 7 public school in Bodrum. The data was collected via environmental attitude scale which was applied during 2009-2010. As a result of the research, it was found that parameters such as genders, grades, educational bacground of the parents were important statistically on the environmental attitudes of the students.

In one of his researches, **Erdoğan (2011)**, analyzed the effect of ecology-based summer nature education program on the participating students' environmental knowledge, affective tendency towards the environment and responsible behaviors towards the environment. 64 primary school students, participating in this program supported by TÜBİTAK and applied in Ankara in 2008, comprised of the sample of this research. Tools measuring the students' knowledge, perception and behavior acquirements were used as the data collecting tools. At the end of the research, it was confirmed that ecology-based summer nature education program had statisttically meaningful effects on the students' responsible behaviors towards the environment. However, there was found no statistically meaningful effect of this program on the students' environmental knowledge and affective tendency points.

2.14.2. Researches About The Sustainable Development

Engin (2010), in this research, focused on that the sustainable development and the environmental education should be brought during the geographical education proces For establising a sustainable world, education has great importance.

Education is the process when the individuals are brought required behaviors. In this time and age, one of the most important responsibilities of the individuals is to maintain the nature-human interaction without degenerating the natural balance, and to leave more liveable world to the future generations. Bringing up the individuals with these responsibilities is possible just through the education. In this education process, the greatest job falls on to the geographics which is in the center of nature-human interaction. In this respect, to reveal the place, importance and being taught of education for the sustainable development and environmental education process in the geographics and also the troubles occuring during this teaching process, 660 students and 4 teachers from different regions and schools of our country were conducted a survey. The data, obtained from the survey results, was evaluated via SPSS, and the frequencies and the percentage were presented as tables and graphics. Moreover, to reveal whether the students' answers differentiate by their genders, city they study in and school type, x-square analysis method was used.

Bal (2012), In his research called "Activity of Emission Trade as The Fighting Tool Towards The Environmental Problems In The Frame of The Sustainable Development", it was seen that destructive effect of human activities on the natural balance of the world, started with the industrial revolution, has exceeded the bearing capacity. The environmental problems increasing with population growth, urbanization, industrialization and economic growth have caused many problems such as global climatic changes, decrease in water resources, depletion of the ozone layer, desertification and food problems. There are 3 main tendencies about solving the environmental problems: 'Zero growth' approach, 'economic growth should go on' approach and 'sustainable development' approach. The sustainable development approach is an approach which seeks balance between today's generations and the future generations about the usage of the environmental resources. In this approach, the emission trade has great importance in search ofsolutions for the environmental problems. This research tries to determine whether the emision trade is active in the frame of the sustainable development approach. The result of the research showed that the emision trade is not active in finding solutions for the environmental problems.

In **Tokoğlu (2013)**, research, solution proposals have started to show up after the environmental problems threaten the human life. In this context, first of all, the subject of "sustainability of the resources" has started to get importance. According to this, the sustainable development has been defined as " meeting the needs of today without making concession about meeting the needs of the future generations". As another solution proposal, "environmental management" has come to the fore. The environmental management includes determining the factors causing environmental problems and an efficient method for the solution of these. Lastly, it has been tried to solve the environmental problems via the green budgeting. In this regard, a budgeting system, which aims to decrease the concerns - occuring because of the environmental problems-by using renewable and sustainable energies, has been developed. As it is understood from our explainations above, all these environmental problems and their solutions will be focused on in our research. The most important factors here are the sustainability of the resources, awareness of the environmental management and the green budgeting system.

Turan (2014), aims to deal with the sustainable development concept, one of the most important paradigms of 21st century, in the frame of different style and method. The research outlines the historical improvement process of the development. In this respect, it can be said that globalization and permanently growing tendency are the first milestone of the sustainable development. Because the globalization-pushing the limits of the growth and encouraging to limitless consumption of the resources- has brought up a new and sustainable strategy about the development to the agenda. Limitless growth desire with limited resources has caused the Pandora's Box to be opened. Global problems such as climatic changes, global warming, environmental pollution, exceeding consumption and poverty gather the developed and developing countries together oftenly in line with this target. International conferences and summit texts draw attention to the importance of a more green economy which is sensible towardssocial and ecological realities. It is pointed out that the development has not only economic extend but also ecological and social extends. Hence, the future generations are come to the fore, and "green economy"-which is a more systematic and long-term sustainability philosophy- is emphasized. In this respect, the green economy shows up as a new "sustainability" perception which is environment - friendly, respectful to the future,

and which predicts fundamental changes in consumption and production habits. This research, in essence, deals with the globalization and the sustainable development in a critical perspective. It lays emphasis on disruption of the existing system, and it presents "the green economy" as the solution-by means of emphasizing that it is not quite efficient.

CHAPTER III
MEDHODS

In this chapter, model, population, sample, data collecting tools, application of the data collecting tools and data analysis of the research titled "A Research About Attitudes and Behaviors of University Students Having Different Cultures Towards The Environment Through Sustainable Development" are presented.

3.1.Research Model

This is a research prepared by asking students' opinions related to attitudes and behaviors of university students from different cultures towards the environment and the sustainable development. In other words, this research was prepared in accordance with a survey model. The survey model is a methodology which includes various techniques of data collecting (Ekiz, 2004). Because this methodology has different techniques of data collecting, it has contributed to the research proces By using this method, existing situation has been determined, and it became possible to collect data from a wide sample group in a short time. In general, this method is used for finding the answers of the questions such as what the present situation of the problem or matter researched and where the problem is also, the sample is kept wide in this kind of researches (Çepni, 2009). The survey used in this research was prepared for determining the students' views about the sustainable development, environmental attitudes and behaviors.

3.2.Population and Sample of The Research

The population of the research is comprised of university students with different cultures and the sample of the research is comprised of 300 university students studying in 2015-2016 academic year. Distribution of the students studying at the universities is shown in the Table below:

Table 3: Participant Status

Country	No. of Students
Libyan Students	89
Nigerian Students	54
Syrian Students	73
Other Students	84
Total	**300**

3.3.Data Collection

While obtaining the data to be used in the research, national and international literature and survey-based field research was done with the aim of supporting the practical side of the research.

To measure the existence and intensity of the problems being the aim of the research in analysis area, first of all, the survey questions were determined. With this aim, previous thesis, pedagogical sorces at the academic levels and assessment and evaluation-based sources were scanned. At the end of this process, firstly, the scales, created as drafts, were made ready to be applied. The data, obtained as a result of the scales applied to the students, were computerized and evaluated.

3.4. Data Collecting Tools

In this research, the sustainable development survey and the environmental attitude and behavior survey were used as the data collecting tools. The scales, applied to the students, were comprised of 60 questions. In the survey with 58 questions, the first 10 questions were for getting personal information 24 questions were for determining their knowledge about the sustainable development 17 questions were for determining their environmental attitudes and 7 questions were for determining their environmental behaviors.

3.5. Data Analysis and Interpretation

The data obtained from the surveys was analyzed by using SPSS 20.0 program. While determining whether the participant students' knowledge about the sustainable development and the environmental attitude and behavior differs according to their genders, unrelated "t"-test was used and while determining whether it differs according to the educational bacground of their parents, Anova, Scheffe, Manova, Wilks' Lambda Test was used.

3.6. Reliability and Validity

In this section, the researcher focused on reliability and validity of the research method. The reliability of a scale is related to the coincidental mistakes of the scales developed by the researcher. The data obtained via unreliable scales does not contribute to the research. Because, if the same test is resulted differently when applied on the same people in different times, then it would not be possible to

interpret according to the results obtained. (Altunışık, Coşkun, Bayraktaroğlu and Yıldırım, 2007).

Table 4. Reliability of Test Scale of The Sustainable Development

Cronbach's Alpha	N of Items
,662	24

In Table 4, available basic percentages about the reliability of sustainable development test scale.

Table 5. Reliability of The Attitude Scale

Cronbach's Alpha	N of Items
,519	17

In Table 5, available basic percentages about the reliability of attitude test scale.

Table 6. Reliability of The Behavior Scale

Cronbach's Alpha	N of Items
,570	7

In Table 6, available basic percentages about the reliability of behavior development test scale.

CHAPTER IV
RESULTS AND COMMENTS

In this chapter, findings of the research, tables belonging to these findings and the interpretations are presented. In accordance with the sub-problems presented in the introduction chapter, explanation order of the findings is followed. As for interpretation findings which belong to the sub-problems, firstly the tables were given and later, interpretation and explaination are made.

4.1. Demographic Aspects

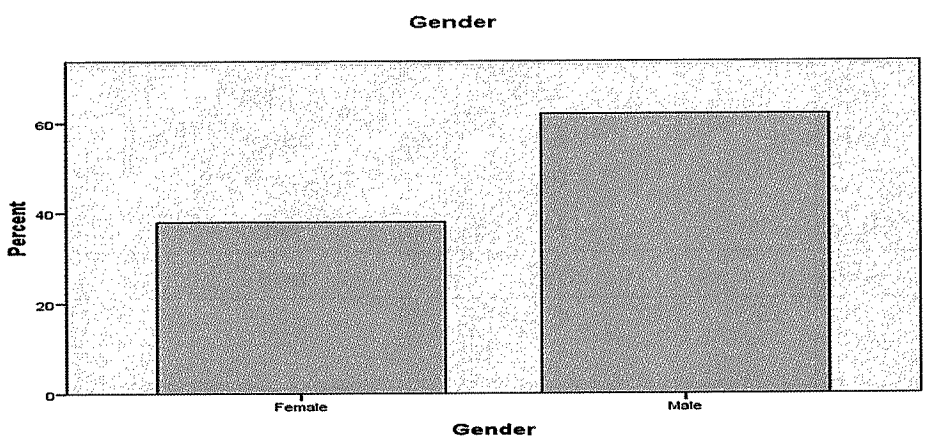
In this section, findings and interpretations about the problems belonging to the demographic aspects are presented.

Table 7. Distribution of The Sample by Gender

		Frequency	Percent (%)
Gender	Female	117	39,0
	Male	183	61,0
	Total	**300**	**100,0**

As it is seen in Table 7, the sample of the research is comprised of 300 people. %39 of the participant students was females, and %61 was males. Number of the males is more than the females'. It is seen that the males are more that the females in the distribution of the sample by gender.

Figure 2. Percentage of The Sample by Gender



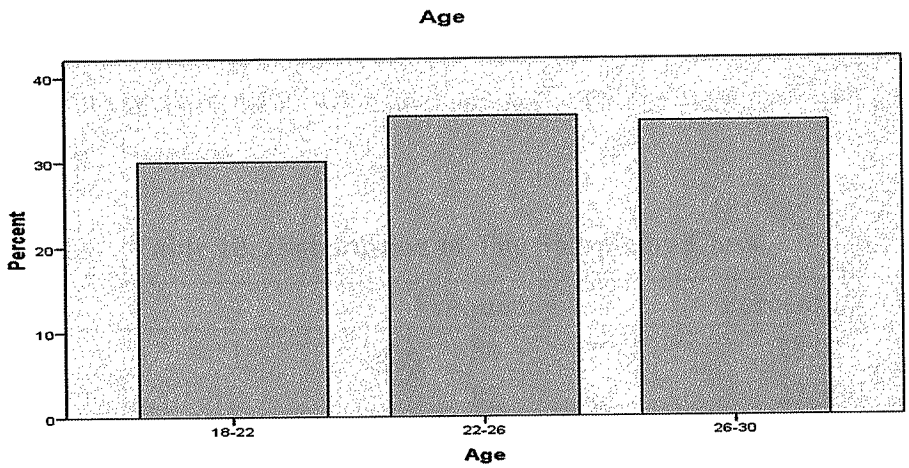
As it is seen in Figure 2, most of the students participating in the research are males.

Table 8. Distribution of The Sample by Age

		Frequency	Percent (%)
Age	18-22	88	28,0
	22-26	100	36,0
	26-30	112	36,0
	Total	**300**	**100,0**

When we look at the Table 8, we see that %28 of the students are 18-22 years old; %36 of the students are 22-26 years old and %36 of students are 26-30 years old. It is seen that the number of students at the ages of 26-30 are more than the others in the distribution of the sample by age.

Figure 3. Percentage of The Sample by Age



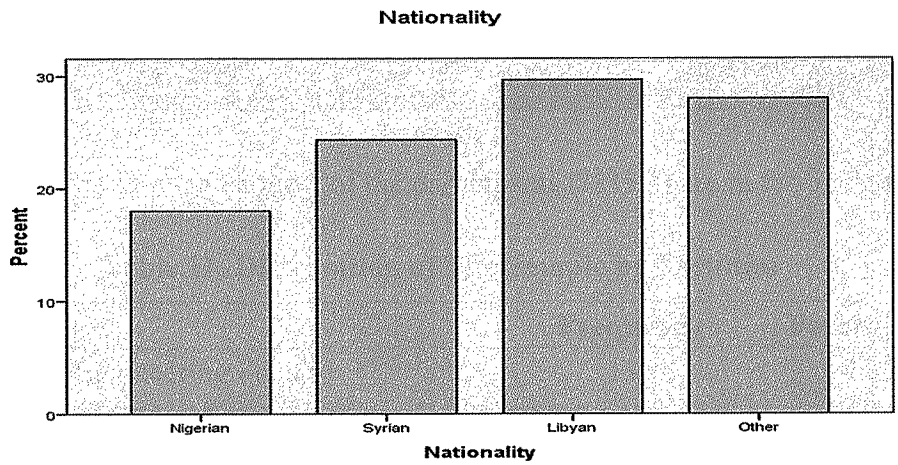
As it is seen in Figure 2, students at the ages of 22-26 are more than the others.

Table 9. Distribution of The Sample by Nationality

		Frequency	Percent (%)
Nationality	Nigerian	54	18,0
	Syrian	73	24,3
	Libyan	89	29,7
	other	84	28,0
	Total	**300**	**100,0**

In Table 9, it is seen that %18 of the students are from Nigeria, %24,3 of the students are from Syria, %29,7 of the students are from Libya and %28 of the students are from other countries.

Figure 4. Percentage of The Sample by Nationality



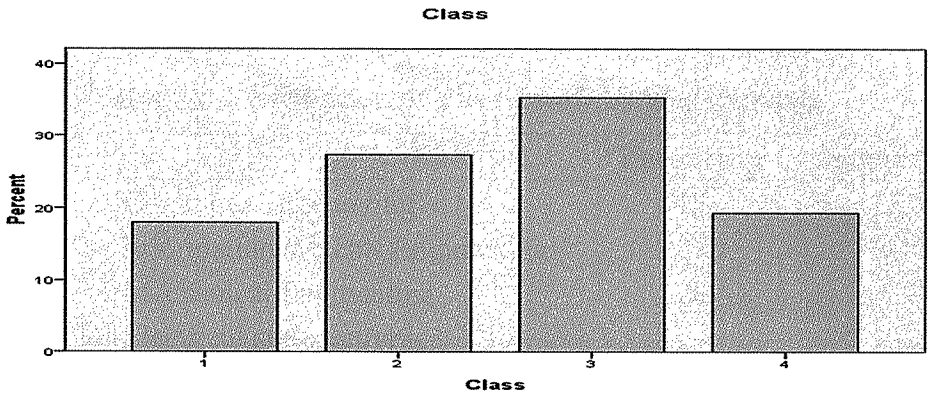
As it is seen in Figure 4, most of the students participating in the research are from Libya (%29,7).

Table 10. Distribution of The Sample by Class

		Frequency	Percent (%)
Class	1	54	18,0
	2	82	27,3
	3	106	35,3
	4	58	19,3
	Total	**300**	**100,0**

When looked at Table 10, it is seen that %18 of the students are in the 1st class, %27,3 of the students are in the 2nd class, %35,3 of the students are in the 3rd class and %19,3 of the students are in the 4th clas

Figure 5. Percentage of The Sample by class



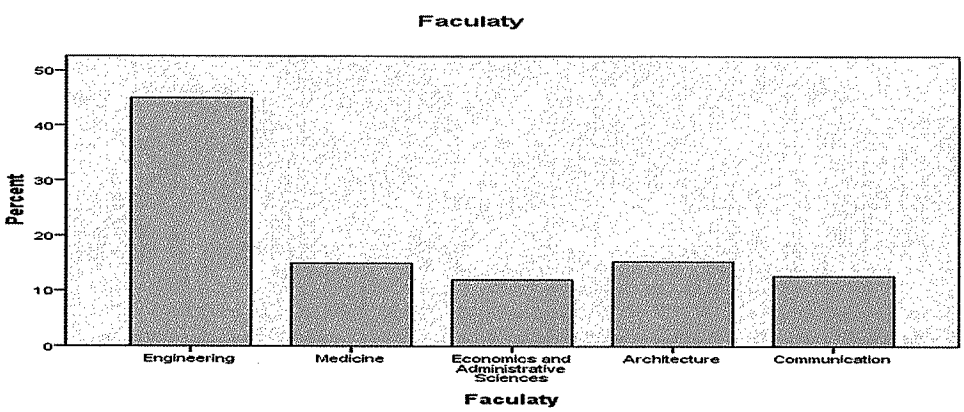
In Figure 5, it is shown that most of the participants (%35,3) are in the 3rd clas

Table 11. Distribution of The Sample by Faculties

		Frequency	Percent (%)
Faculty	Engineering Faculty	135	45,0
	Medicine Faculty	45	15,0
	Economics and Administrative Sciences Faculty	36	12,0
	Architecture	46	15,3
	Communication	38	12,7
	Total	**300**	**100,0**

As it is seen in Table 11, %45 of the students study in engineering faculty, %15 of study in medicine faculty, %12 study in economics and administrative sciences faculty, %15,3 study in architecture faculty, and %12,7 of the students are study in communication faculty. It is seen that most of the students study in the engineering faculty.

Figure 6. Percentage of The Sample by Faculties



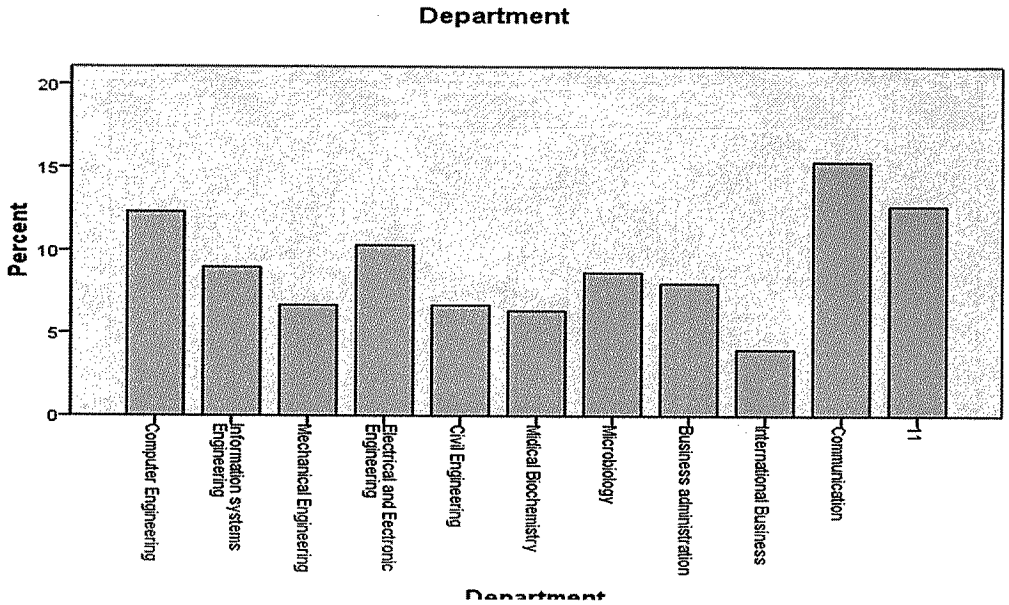
In Figure 6, it is shown that most of the participants (%45) study in the engineering faculty.

Table 12. Distribution of The Sample by Departments

		Frequency	Percent (%)
Departments	Computer Engineering	37	12,3
	Information systems Engineering	27	9,0
	Mechanical Engineering	20	6,7
	Electrical and Eectronic Engineering	31	10,3
	Civil Engineering	20	6,7
	Medical Biochemistry	19	6,3
	Microbiology	26	8,7
	Business administration	24	8,0
	International Business	12	4,0
	Communication	38	12.7
	architecture	46	15.3
	Total	**300**	**100,0**

It is shown in Table 12 that %12,3 of the students atudy in computer engineering department, %9 of them study in information systems engineering department, %6,7 of them study in mechanical engineering department, %10,3 of them study in electric & electronic engineering department, %6,7 of them study in civil engineering department, %6,3 of them study in medical bio-chemistry department, %8,7 of them study in micro-biology department, %8 of them study in business management department, %4 of them study in international management department, %15,3 of them study in architecture department, and %12,7 of them study in other departments. It is seen that most of the students study in the architecture department.

Figure 7. Percentage of The Sample by Department



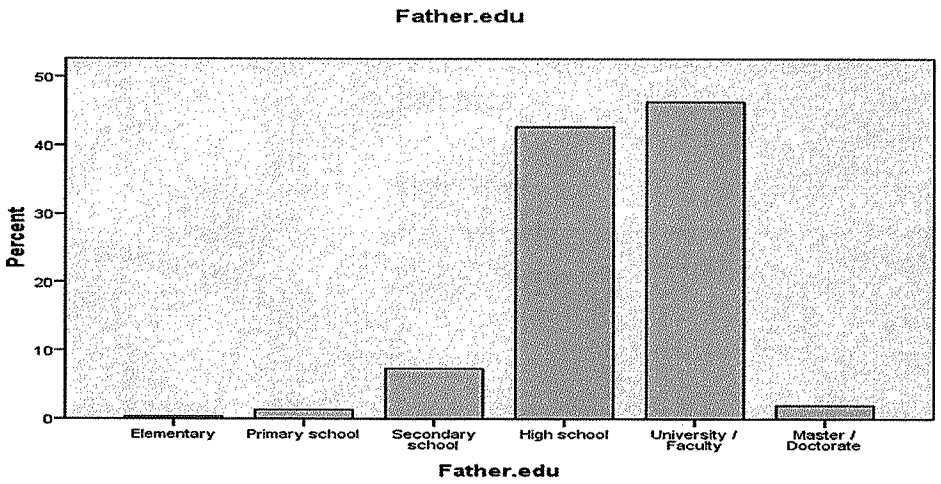
In Figure 7, it is shown that most of the participants (%15,3) study in the architecture department.

Table 13. Distribution of The Sample by The Educational Background of The Fathers

		Frequency	Percent (%)
Fathers Education	Elementary	1	,3
	Primary school	4	1,3
	Secondary school	22	7,3
	High school	128	42,7
	University / Faculty	139	46,3
	Master / Doctorate	6	2,0
	Total	**300**	**100,0**

As it is seen in Table 13, %3 of students' fathers garduated from elementary school, %1,3 of them graduated from primary school, %7,3 of them graduated from secondary school, %42,7 of them graduated from high school, %46,3 of them graduated from university and %2 of them has master or doctorate degree. It is seen that most of the students' fathers garduated from. The minority of the sample comprises of the fathers graduated from elementary school.

Figure 8. Percentage of The Sample by The Educational Background of The Fathers



When we look at the distribution by the educational background of the fathers shown in Figure 8, we see that most of the students' fathers garduated from university. The minority of the sample comprises of the fathers graduated from elementary school (%0,3) and the majority of the sample comprises of the fathers graduated from university (%46,3).

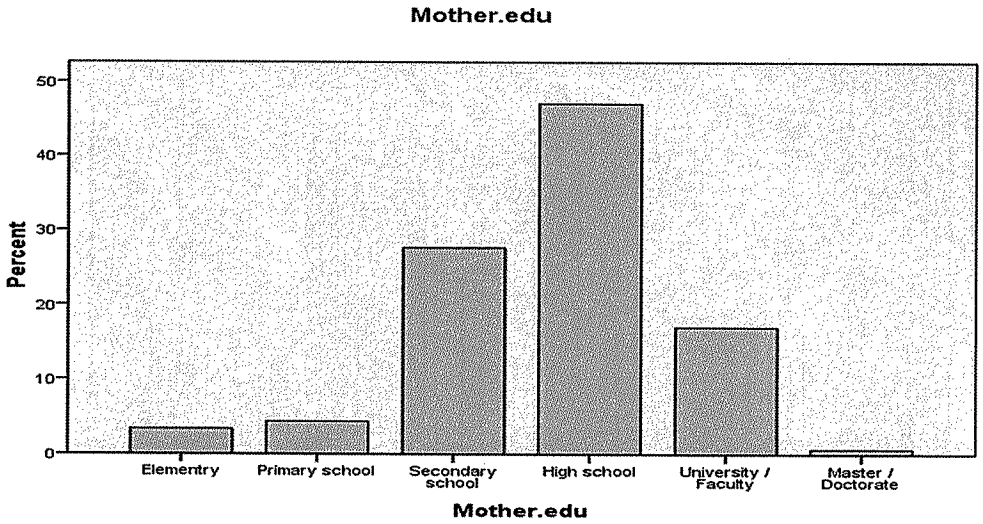
Table 14. Distribution of The Sample by The Educational Background of The Mothers

		Frequency	Percent (%)
Mothers Education	Elementry	10	3,3
	Primary school	13	4,3
	Secondary school	83	27,7
	High school	141	47,0
	University / Faculty	51	17,0
	Master / Doctorate	2	,7
	Total	**300**	**100,0**

As it is seen in Table 13, %3,3 of students' mothers garduated from elementary school, %4,3 of them graduated from primary school, %27,7 of them graduated from secondary school, %47 of them graduated from high school, %17 of them graduated from university, and %7 of them has master or doctorate degree. The

minority of the sample comprises of the mothers graduated from high school, and minority of the sample comprises of the mothers having master's degree.

Figure 9. Percentage of The Sample by The Educational Background of The Mothers



In Figure 9, it is seen that the minority of the sample comprises of the mothers having master's or doctorate degree (%0,7), and the majority of the sample comprises of the mothers graduated from high school (%47).

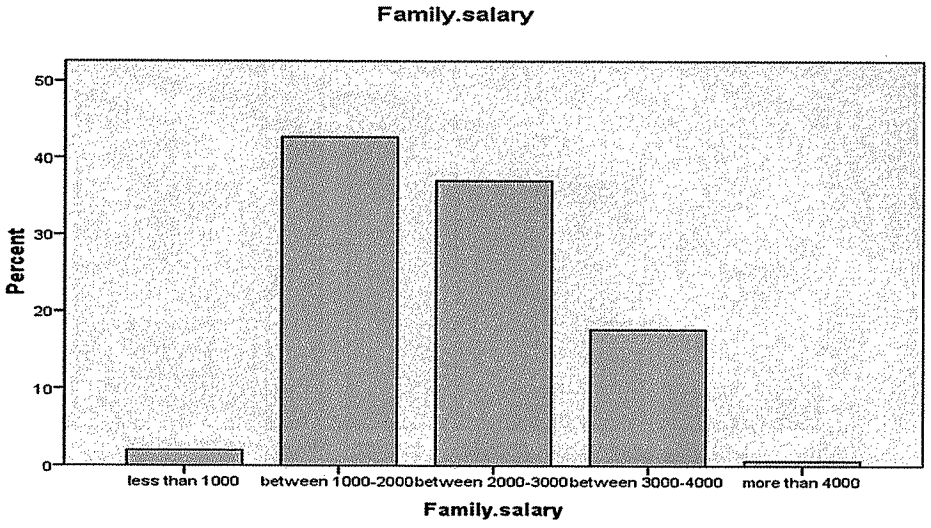
Table 15. Distribution of The Sample by Monthly Income

		Frequency	Percent (%)
Monthly Salary	Less than 1000	6	2,0
	Between 1000-2000	128	42,7
	Between 2000-3000	111	37,0
	Between 3000-4000	53	17,7
	More than 4000	2	,7
	Total	**300**	**100,0**

It is seen in Table 15 that %2 of students' parents have an income lower than 1.000 TL, %42,7 of them have monthly a income between 1.000-2.000 TL, %37 of them have a monthly income between 2.000-3.000 TL, %17,7 of them have a monthly income between 3.000-4.000 TL and %7 of them have a monthly income more than 4.000 TL. When we look at the distribution of the sample by monthly income,

we see that the participant's parents have an average 1000-2000 TL monthly income.

Figure 10. Percentage of The Sample by Monthly Income



When looked at the Figure 10, it is seen that the highest monthly income of the parents is at least 4000 TL (%42,7) and the lowest one is between 1000-2000 TL (%0,7).

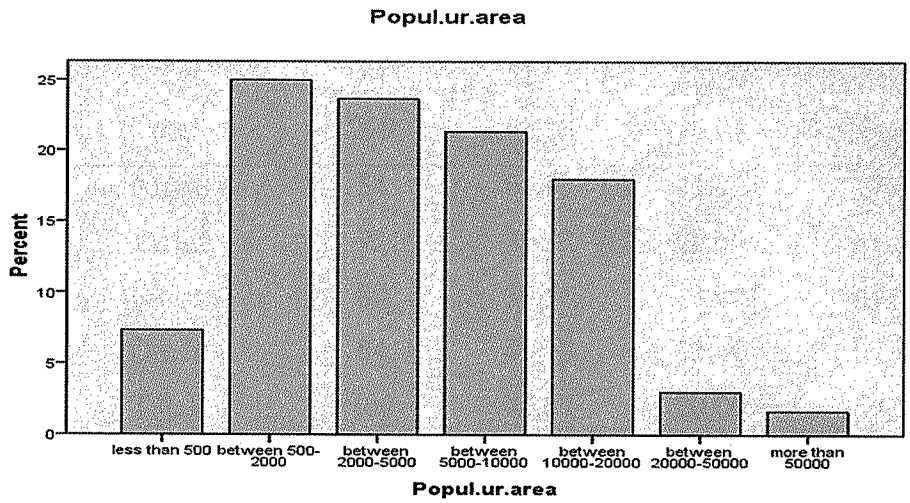
Table 16. Distribution of The Sample by Population

		Frequency	Percent (%)
Population	Less than 500	22	7,3
	Between 500-2000	75	25,0
	Between 2000-5000	71	23,7
	Between 5000-10000	64	21,3
	Between 10000-20000	54	18,0
	Between 20000-50000	9	3,0
	More than 50000	5	1,7
	Total	**300**	**100,0**

As it is shown in Table 16, %7,3 of the population is under 500 people, %25 of it is between 500-2.000 people, %23,7 of it is between 2.000-5.000 people, %21,3 of it is between 5.000-10.000, %18 of it is between 10.000-20.000 people, %3 of it is

between 20.000-50.000 people, 1,7 of it is above 50.000 people. It is clear from Table 16 that the population is between 500-2000.

Figure 11. Percentage of The Sample by Population



It is shown in the Figure 11 that distribution of the sample by population is between500-2000 (%25).

4.2. Findings Based on The Sub-problem

What is the level of attitudes and behaviors of the students with different cultures towards the environment and the sustainable development? In accordance with this problem sentence, the sub-problems of the research are:

4.2.1. First Sub-problem

what is the level of attitudes and behaviors of the uuniversity students with different cultures towards the environment and the sustainable development? Is there any meaningful difference between behaviors and attitudes in different cultures?

Table 17. The Attitude and Behavior Levels of The Participants Towards The Environment and The Sustainable Development

		N	$\bar{X}$	Minimum	Maximum
Knowledge	Nigerian	54	51,03	34,00	75,00
	Syrian	73	50,60	24,00	74,00
	Libyan	88	51,14	34,00	72,00
	Other	84	51,61	28,00	78,00
	Total	299	51,12	24,00	78,00
Behaviours	Nigerian	54	40,33	21,00	57,00
	Syrian	73	39,23	20,00	54,00
	Libyan	89	39,56	23,00	69,00
	Other	84	41,19	23,00	57,00
	Total	300	40,07	20,00	69,00
Attitudes	Nigerian	54	14,74	7,00	31,00
	Syrian	73	14,42	7,00	25,00
	Libyan	89	14,48	7,00	35,00
	Other	84	15,76	7,00	25,00
	Total	300	14,87	7,00	35,00

As it is seen in Table 17, when we look at the attitude levels of the participants towards the sustainable development, it is seen that the ones with the lowest level areSyrian people ($\bar{X}$=50,60); and the ones with the highest level are the Others ($\bar{X}$=51,61). When we look at the attitude levels of the participants towards the environment, it is seen that the ones with the lowest level areSyrian people ($\bar{X}$=39,23) and the ones with the highest level are the Others ($\bar{X}$=41,19). When we look at the behavior levels of the participants towards the environment, it is seen that the ones with the lowest level are again Syrian people ($\bar{X}$=14,42) and the ones with the highest level are the Others ($\bar{X}$=15,76) However, it is also seen that the attitude and behavior levels of Nigerian, Syrian, Libyan are so close to each other. It is shown in Table 2 ther the intercultural attitude and behavior levels change in a meaningful way.

Table 18. Knowledge, Behaviours And Attitudes ANOVA

		Sum of Squares	df	Mean Square	F	P	Explanation
Knowledge	Between Groups	40,876	3	13,625	,138	,937	p>.05
	Within Groups	29186,294	295	98,937			
	Total	29227,171	298				
Behaviours	Between Groups	183,333	3	61,111	1,064	,365	p>.05
	Within Groups	17001,904	296	57,439			
	Total	17185,237	299				
Attitudes	Between Groups	95,518	3	31,839	1,557	,200	p>.05
	Within Groups	6053,669	296	20,452			
	Total	6149,187	299				

As it is seen in Table 18, there is found no meaningful difference (p>.05) in the university students' (with different cultures) behavior and attitudes towards the sustainable development (p=,937), attitudes towards the environment (p=,365) and behaviors towards the environment (p=,200)..

4.2.2. Second Sub-problem

Is there any kind of relationship between gender parameter and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 19. Knowledge, Behaviours And Attitudes With Gender Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Gender	Knowledge	22,253	1	22,253	,227	,634	p>,05
	Behaviours	10,327	1	10,327	,182	,670	p>,05
	Attitudes	4,232	1	4,232	,209	,648	p>,05
Nationality	Knowledge	48,772	3	16,257	,166	,919	p>,05
	Behaviours	317,283	3	105,761	1,861	,136	p>,05
	Attitudes	100,140	3	33,380	1,647	,179	p>,05
YxC	Knowledge	600,328	3	200,109	2,043	,108	p>,05
	Behaviours	336,011	3	112,004	1,971	,118	p>,05
	Attitudes	90,468	3	30,156	1,488	,218	p>,05
Error	Knowledge	28504,159	291	97,952			
	Behaviours	16533,178	291	56,815			
	Attitudes	5898,263	291	20,269			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Gender ∧=,774, Nationality ∧=,452, Gender *Nationality∧=,084

As it is seen in Table 19, as a result of the Manova Test analysis, it is understood that the effects of Gender (∧=,774) and Nationality (∧=,452), and their effects together (∧=,84) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, it is cocluded that there is no relationship between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

4.2.3.Third Sub-problem

Is there any kind of relationship between class parameter and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 20. Knowledge, Behaviours And Attitudes With Class Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Class	Knowledge	228,726	3	76,242	,776	,508	p>,05
	Behaviours	384,356	3	128,119	2,291	,078	p>,05
	Attitudes	16,155	3	5,385	,265	,851	p>,05
Nationality	Knowledge	135,921	3	45,307	,461	,709	p>,05
	Behaviours	157,895	3	52,632	,941	,421	p>,05
	Attitudes	83,414	3	27,805	1,369	,253	p>,05
YxC	Knowledge	1219,610	9	135,512	1,380	,197	p>,05
	Behaviours	524,186	9	58,243	1,041	,407	p>,05
	Attitudes	254,236	9	28,248	1,391	,192	p>,05
Error	Knowledge	27788,024	283	98,191			
	Behaviours	15827,644	283	55,928			
	Attitudes	5749,081	283	20,315			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Class ∧=,562, Nationality ∧=,714, Class*Nationality ∧=,141

As it is seen in Table 20, as a result of the Manova Test analysis, it is understood that the effects of Class (∧=,562) and Nationality (∧=,714), and their effects together (∧=,141) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, it is concluded that there is no meaningful difference between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

4.2.4. Fourth Sub-problem

Is there any kind of relationship between faculty parameter and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 21. Knowledge, Behaviours And Attitudes With Faculty Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Faculty	Knowledge	47,458	4	11,864	,117	,977	p>,05
	Behaviours	94,714	4	23,678	,414	,798	p>,05
	Attitudes	138,614	4	34,653	1,719	,146	p>,05
Nationality	Knowledge	71,361	3	23,787	,234	,873	p>,05
	Behaviours	482,297	3	160,766	2,814	,040	p>,05
	Attitudes	82,992	3	27,664	1,372	,251	p>,05
YxC	Knowledge	740,606	12	61,717	,607	,836	p>,05
	Behaviours	830,845	12	69,237	1,212	,274	p>,05
	Attitudes	262,776	12	21,898	1,086	,371	p>,05
Error	Knowledge	28383,674	279	101,734			
	Behaviours	15941,614	279	57,138			
	Attitudes	5623,900	279	20,157			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Faculty ∧=,765, Nationality ∧=,241, Faculty *Nationality ∧=,310

As it is seen in Table 21, as a result of the Manova Test analysis, it is understood that the effects of Faculty (∧=,765) and Nationality (∧=,241), and their effects together (∧=,310) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, it is cocluded that there is no meaningful difference between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

4.2.5. Fifth Sub-problem

Is there any kind of relationship between educational bacground of the fathers and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 22. Knowledge, Behaviours And Attitudes With Father's Education Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Father Edu.	Knowledge	251,207	5	50,241	,494	,781	p>,05
	Behaviours	221,162	5	44,232	,753	,584	p>,05
	Attitudes	92,916	5	18,583	,897	,483	p>,05
Nationality	Knowledge	63,478	3	21,159	,208	,891	p>,05
	Behaviours	143,841	3	47,947	,817	,486	p>,05
	Attitudes	67,867	3	22,622	1,093	,353	p>,05
YxC	Knowledge	328,496	9	36,500	,359	,954	p>,05
	Behaviours	199,447	9	22,161	,377	,945	p>,05
	Attitudes	93,820	9	10,424	,503	,872	p>,05
Error	Knowledge	28588,973	281	101,740			
	Behaviours	16496,189	281	58,705			
	Attitudes	5818,253	281	20,706			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Father's edu ^=,598, Nationality ^=,817, Father's *Nationality^=,991

As it is seen in Table 22, as a result of the Manova Test analysis, it is understood that the effects of Educational Background of the Fathers (^=,598) and Nationality (^=,817) and their effects together (^=,991) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, it is cocluded that there is no meaningful difference between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

Is there any kind of relationship between faculty parameter and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 23. Knowledge, Behaviours And Attitudes With Mother's Education Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Mother Edu.	Knowledge	180,919	5	36,184	,354	,879	p>,05
	Behaviours	317,194	5	63,439	1,122	,349	p>,05
	Attitudes	80,682	5	16,136	,779	,565	p>,05
Nationality	Knowledge	15,973	3	5,324	,052	,984	p>,05
	Behaviours	227,078	3	75,693	1,339	,262	p>,05
	Attitudes	49,785	3	16,595	,802	,494	p>,05
YxC	Knowledge	723,878	13	55,683	,545	,895	p>,05
	Behaviours	911,217	13	70,094	1,240	,251	p>,05
	Attitudes	234,721	13	18,055	,872	,583	p>,05
Error	Knowledge	28298,098	277	102,159			
	Behaviours	15661,256	277	56,539			
	Attitudes	5734,548	277	20,702			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Mother's edu ∧=,851, Nationality ∧=,664, Mother's *Nationality ∧=,697

As it is seen in Table 23 as a result of the Manova Test analysis, it is understood that the effects of Educational Background of the Mothers (∧=,598) and Nationality (∧=,817), and their effects together (∧=,697) according to the Wilks' Lambda test analysis (p>,05) the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, it is cocluded that there is no meaningful difference between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

4.2.6. Sixth Sub-problem

Is there any kind of relationship between monthly income of the parents and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 24. Knowledge, Behaviours And Attitudes With Family Salary Manova Analaysis

	Dependent Variable	Sum of Squares	Df	Mean Square	F	p	Explanation
Family Salary	Knowledge	434,308	4	108,577	1,077	,368	p>,05
	Behaviours	525,915	4	131,479	2,337	**,046**	**p<,05**
	Attitudes	114,258	4	28,564	3,073	**,028**	**p<,05**
Nationality	Knowledge	31,157	3	10,386	,103	,958	p>,05
	Behaviours	161,058	3	53,686	,954	,415	p>,05
	Attitudes	185,805	3	61,935	1,417	,228	p>,05
YxC	Knowledge	235,855	8	29,482	,293	,968	p>,05
	Behaviours	288,849	8	36,106	,642	,742	p>,05
	Attitudes	208,643	8	26,080	1,294	,246	p>,05
Error	Knowledge	28518,965	283	100,774			
	Behaviours	15920,518	283	56,256			
	Attitudes	5704,337	283	20,157			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Family Salary ∧=,037, Nationality ∧=,232, Family Salary*Nationality ∧=,617

As it is seen in Table 24, as a result of the Manova Test analysis, it is understood that the effects of The Monthly Income of the parents (∧=,037) has an effect on the dependent parameter while Nationality (∧=,232), and their effects together (∧=,617) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) is not meaningful. When the effect in the monthly income of the parents is analyzed in detail, it is concluded that the environmental attitudes of the students are affected by the monthly income of their parents. However, there is found no meaningful difference between the monthly income of the parents and attitudes and behaviors of the students. The effect of the monthly income of the parents is analyzed in a detailed way in Table 25.

Table 25. Behaviours And Attitudes With Family Salary Descriptive Analaysis

Variable	Family.salary	Mean	SD
Knowledge	less than 1000	50,193	,968
	between 1000-2000	51,100	,926
	between 2000-3000	51,375	1,615
	between 3000-4000	53,840	4,347
	more than 4000	46,000	7,098
***Behaviours**	less than 1000	38,375	1,248
	between 1000-2000	38,338	,692
	between 2000-3000	41,243	,724
	between 3000-4000	40,831	1,207
	more than 4000	38,500	2,304
***Attitudes**	less than 1000	14,543	,722
	between 1000-2000	14,197	,414
	between 2000-3000	15,588	,433
	between 3000-4000	15,000	1,944
	more than 4000	16,000	2,175

*Meaningful difference (p<,05)

As it is seen in Table 25, the lowest environmental attitude of the students are the ones whose parents have a monthly income between 1000-2000 TL.

4.2.7. Seventh Sub-problem

Is there any kind of relationship between whether the students taking any courses about the environment and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment?

Table 26. Knowledge, Behaviours And Attitudes With Any Courses Manova Analaysis

	Dependent Variable	Sum of Squares	df	Mean Square	F	p	Explanation
Any course	Knowledge	,629	1	,629	,006	,936	p>,05
	Behaviours	100,243	1	100,243	1,745	,188	p>,05
	Attitudes	1,427	1	1,427	,070	,792	p>,05
Nationality	Knowledge	148,182	3	49,394	,506	,678	p>,05
	Behaviours	75,240	3	25,080	,437	,727	p>,05
	Attitudes	135,668	3	45,223	2,209	,087	p>,05
YxC	Knowledge	804,818	3	268,273	2,751	**,043**	**p<,05**
	Behaviours	60,512	3	20,171	,351	,788	p>,05
	Attitudes	54,324	3	18,108	,885	,449	p>,05
Error	Knowledge	28379,238	291	97,523			
	Behaviours	16714,740	291	57,439			
	Attitudes	5956,209	291	20,468			
Corrected Total	Knowledge	29227,171	298				
	Behaviours	17065,518	298				
	Attitudes	6111,525	298				

Any enviromental course ∧=,495, Nationality ∧=,224, Any course*Nationality ∧=,039

In Table 26, it is shown that as a result of the manova Test analysis, it is understood that the effects of the students taking any courses about the environment (∧=,495) and Nationality (∧=,224) have no effects separately, but their effects together (∧=,039) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) is meaningful. According to this result, it is cocluded that there is meaningful difference between whether the students take any courses and attitudes and behaviors of the students with different cultures only towards the sustainable development (p=,43, p<,05). This effect is analyzed in Table 27 in detail.

Table 27. Knowledge With Any Courses Desciriptive Analaysis

Variable	Envir.course	Nationality	Mean	SD
Knowledge	**Yes**	Nigerian	52,857	2,639
		Syrian	52,438	2,469
		Libyan	53,000	2,550
		Other	46,444	2,328
	No	Nigerian	50,400	1,561
		Syrian	50,088	1,308
		Libyan	50,767	1,156
		Other	53,030	1,216

As it is seen in Table 27, when the effect of students' nationality and whether they take any courses about the environment and their view on the sustainable development is examined, the Libyan students ($\bar{X}$=53,00) participating in the couses have a view on the sustainable development compared to other students. The lowest average points belong to others students ($\bar{X}$=46,44). Among the students who do not take any courses, the others ones ($\bar{X}$=53,030) have the highest rate of view towards the sustainable development.

According to this result, it can be said that views of the students with different cultures towards the sustainable development increase when they take courses about the environment, and the highest rates belong to the students from Libya.

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

In this chapter, the results and suggestions were-reached based on the interpretations of the findings obtained in direction of the sub-aims of this research.

5.1. Results of the Research

When the attitudes of the participants towards the sustainable development are analyzed, it is seen that the lowest attitude rate belongs to the Syrian students ($\bar{X}$=50,60), and the highest one belongs to the others students ($\bar{X}$=51,61). When the attitudes towards the environment are analyzed, it is seen that the lowest attitude rate belongs to the Syrian students ($\bar{X}$=39,23), and the highest one belongs to the others students ($\bar{X}$=41,19). When the behavior level of the participants towards the environment is examined, again, it is seen that the lowest behavior rate belongs to the Syrian students ($\bar{X}$=14,42), and the highest one belongs to the others students ($\bar{X}$=15,76). However, it is also seen that the behavior and attitude levels of Nigerians, Syrians, others and Libyans are close to each other. There has been found no meaningful difference (p>.05) between the attitudes and behaviors of the university students with different cultures towards the sustainable development (p=,937) and their environmental attitude (p=,365) and their environmental behaviors (p=,200). When the attitudes towards the sustainable development are examined, we see that the others students have the highest rates. On the other hand, it is seen that behaviors towards the sustainable development are at medium-level for Nigerians, Syrians, Libyans and others. According to this result, we can say that the attitudes and behaviors of the university students with different cultures towards the sustainable development are at medium-level but not sufficient. Also in several researches conducted on university students, similar results have been obtained (Erol, 2006, Çabuk ve Karacaoğlu, 2003). This means that the environmental education need to be applied in a more efficient way for the sake of increasing environmental attitudes and behaviors in our country.

As a result of the Manova Test analysis, it is seen that the effects of *Gender* ($\wedge$=,774) and *Nationality* ($\wedge$=,452), and their effects together ($\wedge$=,84) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters

(Knowledge, Behaviours, Attitudes) are not meaningful. When the attitudes and behaviors of the participants with different cultures towards the sustainable development and the environment, are examined there has been found no meaningful difference between males and females. According to this result, we can say that the sustainable attitudes and behaviors of the male and female students are not at a sufficient level. In their research, Makki (2004) and Teyfur (2008) did not find any meaningful differences between males and females. This result has similarity with the result of this research.

As a result of the Manova Test analysis, it is understood that the effects of *Class* (∧=,562) and *Nationality* (∧=,714) and their effects together (∧=,141); according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. When the attitudes and behaviors of the participants with different cultures towards the sustainable development and the environment, is examined there has been found no meaningful differences by classes. According to this result, the insufficient environmental education given as the class levels increase affects students' attitudes and behaviors. In his research, Aslan (2005) couldn't find any meaningful differences by class; and this supports our research result.

As a result of the Manova Test analysis, it is understood that the effects of *Faculty* (∧=,765) and *Nationality* (∧=,241), and their effects together (∧=,310) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. There has been discovered no meaningful differences between faculties and the attitudes and behaviors of the university students with different cultures towards the sustainable development and the environment.

As a result of the Manova Test analysis, it is understood that the effects of *Educational Background of the Fathers* (∧=,598) and *Nationality* (∧=,817), and their effects together (∧=,991) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, there has been found no meaningful differences between Educational Background of the Fathers and the

attitudes and behaviors of the university students from different cultures towards the sustainable development and the environment. Yet, the level of environmental attitude and behaviors of the fathers who have master's degree is high. As the educational level of the fathers increase, their environmental attitude level also increases. This result is parallel to the results of research conducted by Erol (2006), Gezer (2006) and Özdemir et al.(2004).

As a result of the Manova Test analysis, it is understood that the effects of Educational Background of the Mothers (∧=,598) and Nationality (∧=,817) and their effects together (∧=,697) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. According to this result, there has been found no meaningful difference between Educational Background of the Mothers and the attitudes and behaviors of the university students from different cultures towards the sustainable development and the environment. As it is in the educational background of the fathers,the level of environmental attitude and behaviors of mothers who have master's degree is high. As the educational level of the mothers increase, their environmental attitude level also increases. Gökçe et al. (2007) couldn't find any meaningful differences by educational level of the mothers; and this supports our research's result.

As a result of the Manova Test analysis, it is understood that the effects of The monthly income of the parents (∧=,037) has an effect on the dependent parameter while nationality (∧=,232), and their effects together (∧=,617) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are not meaningful. When the effect in the monthly income of the parents is analyzed in detail, it is concluded that the environmental attitudes of the students are affected by the monthly income of their parents. However, there was found no meaningful differences between the monthly income of the parents and attitudes and behaviors of the students. The lowest environmental attitude of the students are the ones whose parents have amonthly income between 1000-2000 TL. In the research carried out by Erdoğan (2003), it is seen that the students, whose parents have middle or near to middle monthly income, develop more positive attitude than the ones with alower monthly income.

As a result of the Manova Test analysis, it is understood that the effects of whether the students take any courses about the environment (∧=,495) and nationality (∧=,224) have no effects separately, but their effects together (∧=,039) according to the Wilks' Lambda test analysis (p>,05), the effects on the dependent parameters (Knowledge, Behaviours, Attitudes) are meaningful. According to this result, it is cocluded that there are meaningful differences between the students takeing any courses and attitudes and behaviors of the students from different cultures only towards the sustainable development(p=,43 , p<,05). And also, it can be said that the Libyan students have the highest view level towards the sustainable development. Similarly, in the researches conducted by Deniş., Genç (2007)., Kıyıcı Balkan., Aydoğdu., Doğru., Aslan., Özkaya (2005)., Uzun., Sağlam (2007), Gündüz., Aslanova (2015) it is stated that there is a meaningful difference in favor of the students who take environmental education courses. Furthermore, Uzun and Sağlam stated that in the research of Ünal and Dımışkı (1999), it was seen thatthe students who can see showed ahigher success that the ones who cannot see. E ven though there is no context about the environment in Turkish Language Teaching, positive attitudes of the students indicate that mass media such as TV, newspaper and magazines and the social life have effects on this point.

5.2. Recommendations

- To improve the university students' awareness of sustainable development much more, the sustainable development concept should be included in the curriculums.

- Education takes place in every stage of the life. Thus, there should be efficient efforts to provide the environmental awareness in the society.

- More extensive education ahould ve provided about the environment and the sustainable development by taking roles of the individuals into consideration.

- The environmental awareness should be brought by holding in-service trainings or seminars for the parents.

- The context of the environmental education given during the lessons should motive the students' learning process by doing and experiencing. For instance, outdoor activities should be included in the education programs from pre-schools to universities.

- Education about the environment and the sustainable development should be includedn in the school curriculums not as a sub-unit of other lessons but a separate discipline. However, the bound between all the disciplines shouldn't be broken.

- The social, environmental and economic extents of the sustainable development are related to each other. They shouldn't be dealt with separately. Thus, separating these extents from each other is not possible while giving sustainability lessons.

- Students should be encouraged to participate in an environmental organization or association, and conferences, seminars or meetings of these organizations.

- Lessons should be given in a way that would be helpful for the students to improve their social, environmental and economic extens awarenes

- Students should be provided with environmental publications to know about what happens in the world daily, and what kind of environmental problems occur.

- Because people consumption as their socio-economic situation gets better, or they cause the environmental pollutants to pile up in the nature by using them exceedingly, the students should be taught that they should keep protecting the nature without forgetting it even after they get high incomes.

- In order to increase the level of attitudes and behaviors of the students towards the environment and the sustainable development positively, and to grow them up as sensible individuals having responsibility towards the environment, the

environmental subjects in education programmes should be made more interesting and they more time should be allocate.

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Appendix-1.

PERSONAL INFORMATION FORM

Dear Students,

Thank you for your oarticipation. This survey is related to a scientific study. As a result, you will not be given any grades. Therefor, pleace do not write your name. Please read the questions carefully and answer them sincerly. The survey should take no longer than 20 minutes to complate.

Ramzi M.F. Awida,
Master Student

Class:..... Age.:.....
Faculty: .....
Department: .....
Gender: Female☐ Male☐
Nationality: TR☐ TRNC☐ Other☐

The population of the area where you live: Less than 500 ☐Between 500-2,000 ☐Between 2,000-5,000 ☐Between 5,000-10,000 ☐Between 10,000-20,000☐ Between 20,000-50,000 ☐ More than 50,000 ☐

Education status of your mother: **Education status of your father:**

Elementary ☐1
Primary School ☐2
Secondary School ☐3
High School ☐4
University / Faculty☐5
Master / Doctorate☐6

Elementary ☐1
Primary School ☐2
Secondary School ☐3
High School ☐4
University / Faculty☐5
Master / Doctorate☐6

What is your familys monthly income? Who are involved?

Less than 1,000TL ☐ Between 1,000 TL – 2,000TL ☐ Between 2,000 – 3,000TL ☐
Between 3,000 -4,000TL ☐ More than 4,000 TL ☐

Please tick the appropriate option in the following question:

1.Have you received any environment lessons before?

Yes☐1 No☐2

2. Do you actively joinin any environmental group's (foundations, associations, voluntary organizations and etc.)to work?

Yes ☐1 Name:..... No ☐2

Appendix-2.

1.Testof KnowledgeForSustainable Development

	Agree	Totally Agree	Don't Agree	Strongly Disagree	No Comment
1.Protecting the environment is necessary for SD.					
2.Conservation of fresh water is necessary for SD.					
3.Human actions are contributing to changes in our atmosphere and climate systems.					
4.SD requires shifting to the use of renewable resources as much as possible.					
5.'Maintaining biodiversity' means maintaining the number and variety of living organisms. This is necessary for SD.					
6. SD requires respect for human rights.					
7.Improving people's opportunities for long and healthy lives contributes to SD.					
8.SD requires individuals to reduce all kinds of waste.					
9.SD requires access to good quality education for everyone.					
10.Economic development is necessary for sustainable development (SD).					
11.SD requires businesses to behave responsibly to their employees, customers and suppliers.					
12.SD requires people to reflect on what it means to improve the quality of life.					
13. Respect for cultural diversity is necessary for SD.					
14.SD requires people to learn new things throughout their lives.					
15.Good citizenship is necessary for SD.					
16.A culture of peace where people settle conflicts by discussion is necessary for SD.					
17.SD results in fair distribution of goods and services to all people around the world.					
18.The elimination of poverty is necessary for SD.					
19.SD requires that people understand how the economy works.					
20. SD requires achieving the United Nations' Millennium Development Goals.					
21.I have taken a course in which sustainable development was discussed.					

22.Cell phone production and usage does not consume a lot of resources.					
23.SD allows the environment to be radically altered in order to create/maintain jobs.					
24.SD is not dependent on gender equality.					

Appendix-3.

3-Test Behaviours For Their Sustainable Development

	Agree	Totally Agree	Don't Agree	Strongly Disagree	No Comment
1.Protecting the environment is necessary for SD.					
2.Conservation of fresh water is necessary for SD.					
3.Human actions are contributing to changes in our atmosphere and climate systems.					
4.SD requires shifting to the use of renewable resources as much as possible.					
5.'Maintaining biodiversity' means maintaining the number and variety of living organisms. This is necessary for SD.					
6. SD requires respect for human rights.					
7.Improving people's opportunities for long and healthy lives contributes to SD.					
8.SD requires individuals to reduce all kinds of waste.					
9.SD requires access to good quality education for everyone.					
10.Economic development is necessary for sustainable development (SD).					
11.SD requires businesses to behave responsibly to their employees, customers and suppliers.					
12.SD requires people to reflect on what it means to improve the quality of life.					
13. Respect for cultural diversity is necessary for SD.					
14.SD requires people to learn new things throughout their lives.					
15.Good citizenship is necessary for SD.					
16.A culture of peace where people settle conflicts by discussion is necessary for SD.					
17.SD results in fair distribution of goods and services to all people around the world.					
18.The elimination of poverty is necessary for SD.					
19.SD requires that people understand how the economy works.					
20. SD requires achieving the United Nations' Millennium Development Goals.					
21.I have taken a course in which sustainable development was discussed.					

22.Cell phone production and usage does not consume a lot of resources.					
23.SD allows the environment to be radically altered in order to create/maintain jobs.					
24.SD is not dependent on gender equality.					

Appendix-4.

2-TestAttitudesFor TheirSustainable Development

	Agree	Totally Agree	Don't Agree	Strongly Disagree	No Comment
1. Males and females should have equal access to all kinds of education and employment.					
2. Every person should receive education that teaches the knowledge, values and skills necessary for sustainable living in a community.					
3. The present generation should make sure that the next generation can live in communities that are at least as healthy as those that exist today.					
4. It is important to find ways to reduce poverty.					
5. Use of fuel-efficient vehicles should be encouraged by governments.					
6. Household tasks should be equally shared among members of the household regardless of gender.					
7. I believe that the household tasks in my home should be equally shared among family members regardless of gender					

Curriculum Vitae

My name is Ramzi. M. F Awida. I was born on 10.12.1979 in Libya in Algaraboli city. I got my high diploma in fall 2000 in the filed of Medical and Health technology, Environment Section. I obtained a High Diploma degree in autumn 2004. I got a job at the end of 2005 as teaching assistant at the same Higher Institute where I graduated from. In 2013 I left my country to complete my education and get a master's degree. Here I had the opportunity to travel to the Republic of North Cyprus to receive a good education in this country. My master's study began in (2013-2014) in the field of Science and Environmental Education Management. In my first year in Cyprus I studied English language for one year to improve my English. Then I started my study in Environmental Education Management in Near East University.