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A Research about Attitudes and Behaviors of University Students with Having Different Cultures towards the Environment through Sustainable Development

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ABSTRACT
The aim of this research is to determine the environmental attitudes and behaviors of the university students with different cultures. This research was prepared in accordance with survey model. The population of the research is composed 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. The data obtained from the surveys was analyzed by using SPSS 20.0 program. 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: attitude, environment, environmental problems, environmental education, sustainable development

INTRODUCTION

It is possible to define "sustainable development" as 'meeting the needs of present generations without restricting the opportunities of meeting the needs of next generations'. 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.

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State of the literature

- To create environmental awareness, sustainable development and the environmental attitudes and behaviors should be disposed.
- The survey used in this research was prepared for determining the students' views about the sustainable development, environmental attitudes and behaviors.
- Certain parameters and behaviors of the students with different cultures towards the sustainable development and the environment are tried to be measured.

Contribution of this paper to the literature

- The attitudes and behaviors of the university students with different cultures towards the environment and the sustainable development are still not sufficient
- 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
- The behavior and attitude levels of Nigerians, Syrians, others and Libyans are close to each other.

One of the most important ways to contribute to the sustainable development process is to educate individuals. Through their mutual interaction with society, the individuals enable both their own socialization and the development of the society (Lucerne Declaration, 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 independence in natural and social circumstances. In addition to this independence, individuals' knowledge, attitudes, behaviors, perception and values are also crucial for the sustainable development (Lucerne Declaration, 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 raise 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.

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:

- 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 genders and 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 class parameter and 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 faculty they study in and 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 educational backgrounds of their parents and the attitudes and behaviors of university students, from different cultural backgrounds, towards the environment and the sustainable development?

MATERIAL AND METHODS

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 process. 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.

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 1**.

Table 1. Participant Status

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

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 sources 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.

Data Collecting Tool

In this research, the sustainable development survey and the environmental attitude and behavior survey were used as the data collecting tools.

These surveys were generated by International Insitute of Sustainable Development (IISD) with help of the researchers Michalos, Creech, Mc Donald & Kahlke, in January 2009. 90 candidate items were used for the two surveys covering knowledge, attitudes and behaviours more or less indicative of the "fifteen strategic perspectives." The groups included members of the UN Monitoring and Evaluation Expert Group for the DESD, UN Reference Group for the DESD, Canadian National Education for Sustainable Development Expert Council, a network of Education for Sustainable Development contacts of the Council of Ministers of Education, Canada, a network of contacts through the International Institute for Sustainable Development, former participants in the Halifax Higher Education for Sustainability Conference, and participants in the AsiaPacific DESD Monitoring Project. On the basis of the importance ratings from respondents made a first cut at reducing the total item pool. Selecting the top-rated items from the three sets of items, reserachers ended up with 17 items measuring knowledge, and 15 each measuring attitudes and behaviours. In January 2008 the questionnaires were mailed out to a random sample of 5,000 households in the province of Manitoba, and 506 completed questionnaires were returned by the end of February. These formed the working dataset base of the surveys.

These surveys then applied to the students in Cyprus to reach the aims of this reseach. 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.

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 background of their parents, ANOVA, Scheffe, Wilks' Lambda Test was used.

FINDINGS

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:

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

Table 2. 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 2.** when we look at the attitude levels of the participants towards the sustainable development, it is seen that the ones with the lowest level are Syrian people ($\bar{X}$=50,60); and the ones with the highest level are the Others (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 are Syrian 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 the intercultural attitude and behavior levels change in a meaningful way.

As it is seen in **Table 3**, 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).

Table 3. 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				

Table 4. Knowledge, Behaviours and Attitudes with Gender MANOVA Analysis

	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				

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?

As it is seen in **Table 4** 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 concluded that there is no relationship between gender and attitudes and behaviors of the students with different cultures towards the sustainable development and the environment.

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 5. Knowledge, Behaviours and Attitudes with Class MANOVA Analysis

	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 5**, 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.

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?

As it is seen in **Table 6,** 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 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.

Table 6. Knowledge, Behaviours and Attitudes with Faculty MANOVA Analysis

	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

Fifth Sub-problem

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

As it is seen in **Table 7,** 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 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.

Table 7. Knowledge, Behaviours And Attitudes With Father's Education Manova Analysis

	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

Table 8. Knowledge, Behaviours And Attitudes With Mother's Education Manova Analysis

	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 8 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 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.

DISCUSSION AND CONCLUSION

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 & Gezer, 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 (^ =,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. 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) 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 & 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. it can be said that the Libyan students have the highest view level towards the sustainable development. Similarly, in the research conducted by Deniş.,Genç (2007)., Kıyıcı Balkan., Aydoğdu., Doğru., Aslan., Özkaya (2005)., Uzun., Sağlam (2007), Gündüz et al. (2016) it is stated that there is a meaningful difference in favor of the students who take environmental education courses. Even 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.

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