

Determination of The Knowledge Levels And Attitudes of Azerbaijani University Students About Environmental Issues Educating In Azerbaijan And TRNC

Şerife GÜNDÜZ*

Fidan ASLANOVA**

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Abstract

Purpose of Study: The purpose of this investigation is to define the level of knowledge of students of Baku State University, Biology Faculty on environmental education.

Problem Statement: As Azerbaijan has rich natural gas and oil resources, environmental issues become more important subject for last twenty years. While verifying responds of students for asked questions on environmental issues, we observed that correct answers of women were 59,05% but correct answers of men were 57, 45%. Both of women and men students responded the 3 important questions incorrectly. There was significant difference in only 2 Articles of general 63 Articles, among students. While looking at total average of all Articles, knowledge levels of woman and man was defined as 3,34 (68%). While verifying knowledge levels of students, there was significant difference among classes from statistical point of view. While estimating responds of students on environmental problems under their faculties, there was not significant difference among them, and correct answer percentage is 60,1% that belongs to students of Biology Faculty. 59,1 % belongs to Ground Protection, but the lowest percentage of correct answers 57, 6% belongs to Ground Structure and Ground Inspectorships. With the

* Assis. Prof. Dr., Near East University, Faculty of Education, serife2001@yahoo.com

** Asiss., Near East University, Faculty of Education, fidanaslanova@yahoo.com (corresponding author)

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

Conclusions and Recommendations: The results show that knowledge levels of **Baku State University’ Students on environmental** problems (58,25%) is higher than Azerbaijani students (52,88%) studying at Near East University. While **verifying attitude’ levels on environmental** awareness, attitudes of Azerbaijani students studying at NEU were 3,46% (69,2%), but attitudes of **Baku State University’ Students** were 3,34% (66,8). **Although** there are significant difference among two groups from statistical point of view, this difference is not higher than environmental knowledge. Significant difference among two groups was observed in 38 questions from 63 questions on environmental knowledge from statistical point of view. *Methods:* 119 woman and 81 man students studying at 5 spheres of Biology Faculty (Ground Protection, Earth Structure and Ground Inspection, Biochemistry and Biology) have taken part in this investigation.

Keywords: Environment, environmental education, pollution, environmental knowledge, environmental attitude scale

Introduction

Environment means all biotic and abiotic factors together necessary for living of **organisms. Most of people, forgetting themselves being class of “Organisms”, don’t** consider environmental problems as important subjects. Such assumption is not only incorrect, but also dangerous that could create irreversible environmental accidents in our world (Guler and Chobanoglu, 1997). **It’s necessary to be attentive** while **interfering ecosystem. It’s connected with** obtaining desirable life, avoiding poorness, base acceptance of developing its natural resources of the countries (Chepel 1998). World face the huge environmental problems like climate changes, water and wheather pollution, wastes and biodiversity and etc. As increasing number of population, humans will not consume and produce as now. Important part of population of the world are living under poorness, so main reason is irreversible environmental issues.(Caldeira at al., 2003). As only one world is accepted in the galaxy, it is not hard to understand we have only way to protect our world. In this case, most significant way of environmental protection is correct

environmental education and its spreading. It means all conditions together necessary for living environmental organisms. Most of people, forgetting themselves being class of this organism group and destruction of environment would impact them soon (Nazlıoğlu, 1993). Environment surrounds both of nature and human beings. According to education history, it was hard to find "Special" education for environment till 1970 years. Creation of environment training, makes humans to pay attention to negative impacts on environment. One of first and reliable definitions, is the definition given by International Union for Conservation Nature (IUCN) in 1970 years: Environment education is the period of knowing of relevant notion and values in order to develop the relations among human, human' culture and bio-physical environmental and skills and behaviors for understanding importance of this relation. Environmental education, also is subject that requires expressing himself and making decision in the questions concerning with environmental quality (ICUN, 1970). Environmental education and scientific literacy of students, should be trained for enabling to make correct decision while facing environmental problems (By bee, 1993). Today, the notions like industrialization of modern community, growing, unlimited consumption, production and economy regarding environmental issues, are being formed. Pointing out negative impact of industrialization in environment, environment officers suppose economic development also affects natural environment negatively (Macionis, 1995). Environmental problems is pollution of physical elements of nature such as whether, water and ground that makes negative impact to environment, as a result of excessive and incorrect use of nature and nature resources (Guler and Chobanoglu, 1997). Idea of environmental protection, begin from Haeckel (1866) in 19 th century. Human is connected to use environment properly or to change environment knowledge and awareness environmental measure. Furthermore, this awareness directs the individuals against nature and direct them towards nature (Spurgeon, 1997). Target groups in environmental training; is education of children pre-school, first school, secondary school, lisey, university students, mother-fathers, teachers, technical environmental personnel, employee, nation, managers. Environmental education is work sphere among disciplines targeting development of informed and sensitive citizenship notion on environments created by nature and humans. Environmental education is the period of important roles of knowledge, awareness, skills, action and motivation providing of purpose of proper behavior as environmental (Erjem, 2005). Environmental education, should be aimed at development of skills of problem solution and decision-making, questioning in humans (Mrazek, 1993). Environmental education is work, among disciplines combing the ideas like how nature operates and what kind of connections among objects in nature, also natural sciences and economy, politic and morals like ideas biological, chemistry and geology (Cobb, 1998).

Azerbaijan, locating between 38-25 north components and 44-50 east longitude, also Europe and Asia, has warm climate. Azerbaijan faces hard climate coming through Caspian Sea, highest mountain and other highest segments. Azerbaijan has richest liquidate gas, petrol and iron resources and favorable tillage grounds. As a result several toxically drugs remained in air space of the region, makes negative

impact to humans and resistance of humans is being decreased for last ten years. There are a number of infectious deceases and deaths. Sedentary life of nation, decreasing of natural food make negative impact to nervous system of people. It is connected with serious violation of favorable impacts. Therefore, chronically deceases like heart-vein system, breath ways, endocrinology, stomach deceases, cancer and etc, are widely spreaded among nation. For example, heart-vein deceases are 53%, bend system deceases are 64 %, diabetes are 20%, liver decease have been increased 150% in comparing the indicators of 1987 with 1980 years. 65 % of new-born children are sick, weak, sometimes abnormal. After all these explanations, we can define that creation of ecological-environmental problems happens as a result of disloyal behavior to nature and intention to use natural resources madly (Azakov, 2007).

By this research, alongside definition of knowledge of students of Universities in Azerbaijan, effective environmental training on the subject of environmental pollution is considered to be positive contribution for students of University. Also environmental information and knowledge levels of Azerbaijani students are compared as per North Cyprus Republic of Turkey. Educating of environmental education to students of Universities in Azerbaijan, is possible by means of obtaining of relevant information, skills and sensitiveness. This action would be important sample for students of Universities in Azerbaijan to be attentive against environment, or how to conduct environmental education. Also the students, by environmental training obtain environmental knowledge directed in their living area on the subjects of acceptance of nature, recognition and protection. This investigation, is limited with Azerbaijani students as per training in North Cyprus Republic of Turkey and students studying at five different sections of Biology Faculty within 2010-2011 education years.

Method

This investigation was conducted by combination with several investigations. The questionnaires, were filled by students giving them sufficient time. These questionnaires, surround environmental knowledge of students, their attitudes against environment and the behaviors directed in environment. The percentages of **students' questions, are commented in this work. The details obtained by method of combination in investigation, are compared with their class levels, genders and sections. Generalization of analyze of details obtained from selected group, was conducted (Gall, Gall and Borg, 2003).**

Participants of mathematical power scale: The universe of this investigation, is organized by students studying at North Cyprus Republic of Turkey and Baku State University in Azerbaijan within 2010-2011 education years. Samples of investigation is organized by 200 students studying at 4 different (Earth Structure and Ground Inspectorships) specialty sections of Biological Faculty in Baku State University in Azerbaijan and 60 students studying at different sections in Near East University.

Students' Mathematical Power: Demographic features of students involved in questionnaire.

Section	Sex		Total	Class			
	Man	Woman		1.Class	2.Class	3.Class	4.Class
BSU 200	81	119	200	0	71	59	70
NEU 60	10	50	60	38	7	9	6
Total 260	91	169	260	38	78	68	76

Information Obtaining Means

As means of information obtaining, environmental knowledge tests prepared for students were used. As means of information obtaining environmental training comprising of 3 demographic (gender, class and section) 85 definition questions, were used. In order to define the attitudes directed to environment basing on previous sources, the reactions given to 63 questions were defined by Likert Measure Tool N5. The following points were as a result of measure estimation: **I agree absolutely:5, I agree:4, No idea: 3, I don't agree: 2, I don't agree absolutely: 1.** Taking out of responds from 6 th the articles where the students had to be agreed, all levels were defined. Multiplication of all obtained values to 20, give us all attitude percentages. By purpose to define environment knowledge, other selected 22 questions, have been prepared basing on 1 right, 4 incorrect responds. First action of finished scale were carried out by factor analyze and reliability analyze SPSS 16,0 program after sample' application for 40 persons.

After implementation of relevant regulations, questionnaire have been applied for 200 persons as per education at 6 sections of Biology Faculty, Baku State University. As per minority of Azeri students with their genders and classes under education in Near East University, North Cyprus Republic of Turkey, comparison among the groups was conducted.

Analyze of Information

The responds of students to the questions were analyzed by quantitative methods. The details obtained from question form, have been solved by use of SPSS 16,0 Program by means of Computer. Validity level of each article and reliability of tests were defined with Kaiser-Meyer-Olvin (KMO) values separately. For definition of frequency and percentages in appointment of target group and attitude, also differences among groups, t-test, 2 for 2 independent changes, Duncan Test after ANOVA for 2+independent changes, were used.

Scale Adapdation and Validity Reliability Work

Validity work of improved scale, was implemented in either structure or content validity. Within framework of content validity, specialist' opinions in definition of articles and its sufficiency in the scale, were received and the measures were taken on this direction. The results of Kaiser-Mayer-Olkin (KMO) tests should be higher and significant in investigation of finished scale structure (Boyuk Ozturk, 2002). Measurement sufficiency value of KMO samples were defined as =0,585. These factors, show analyze implementation and higher correlation among articles.

While verifying announced total variance values, values of analyzed 84 articles (9 factor) are collected under 31 factors that are higher than 1. Complete of scale announces 72,047% of variance. Announced variance of 1 th factor in the scale is 10,326%, contribution of 2 nd and 3 rd factors are 6,471 and 4,692., contribution of other factors to scale are not higher. Therefore the scale is considered to be three-factor. Newly- adjusted scale, was applied with samples for 300 persons. As per reliability coefficient obtained in this investigation (0,562), finished scale is considered to be higher scale for spheres of education and social sciences (Gall and others, 2003).

Results

While verifying the responds of questions of students as per education in Azerbaijan State University on the subject of environmental information, percentage of correct answers of women were 59,05 %, but men were 57, 45% (Table 2). The results obtained from actions made before, (Yilmaz and ark; Aslan and ark.,2008) make similarity. Most of investigators defined that information and knowledge points of women was higher than men. Although there is digital difference in this work, but there is no significant difference from statistical point of view. Alongside with it, we observed decrease of information point as decrease of environmental information of the students. The obtained findings, are less than environmental information of nation defined as 70,84% and realized in Edirne by Yilmaz (2009). The only one question defined as main difference among the responds of woman and man was on the subject of purposes of Environmental Impact Estimation. As total average, knowledge level of women were higher than men in this question (6,2%>44,4%). Other significant result was incorrect answers of students (either women or men) to 3 significant questions. The students know Nagasaki as the place where the first nuclear was used. But first nuclear bomb was thrown away to Hiroshima, 3 days before, August 6, 1945. The other significant question is reason of DDT' restriction. Also the students responded that it was prohibited as per it's not practical (Women=58,8, Men=49,9). The students are not informed on sea turtles living in our sea shores whose were under threat regarding tourist actions, but students know about flamingos instead of them. As a result, if we take the differences derived from organisms away, the impacts will exist. Favorable conditions will make negative impact all lives under favorable or unfavorable conditions. Gender difference will not be changed as per humans, favorable or

unfavorable results will impacted both of two genders on the same directions. It means the conditions and results impacting men will also impact women. It will also make negative impact to both of sexes under unfavorable conditions at the same form. Impact level among the sexes would be different for some reasons derived from creation and features. While comparing percentages of right answers responded for questions on environmental information of the students studying at North Cyprus Republic of Turkey, Near East University and Baku State University, total averages of students of Baku State University were 58,25, students of Near East University were 52,88%. It is also significant among two groups from statistical point of view. There was significant difference in 14 questions from 22 questions. For example, percentage of students of Baku State University giving correct answer for questions of most important factors creating environmental issues, was 80%, percentage of correct answers of Azerbaijani students trained in Near East University was 58,30%. Percentages of correct answers of Azerbaijani students as per trained in BSU and NEU were 72,1% and 66,7% these figures were also observed in percentages of right answers given 4. question where ecological definition in similar form. Although the **students studying at both of schools and educated DDT** prohibition asked in 7. Question, responded incorrectly, the significant difference among two groups is also other important result in this investigation. Percentages of **right answers of NEU' students (70,0%)** was higher than percentages of right answers of **NSU' students (47,4%) on the question of base purposes of environmental training (8 th. question)**. As per Table 2, percentages of right answers of **Azerbaijani'** students trained in NEU on 11.,12 and 13 questions, were lower. The other significant result is **perfect knowledge of Azerbaijani' students training in NEU on definitions of eco-system and environment as per education in BSU.**

Table 2:

Comparison of Responds given to Questions on Environmental Awareness on Sex Change (T-Test)

No	Articles	Right Answer Percentage and Sig. Values					
		Baku State University			Near East University		
		Woman	Man	Ort.	Sig.	Ort.	Sig.
1	Which following voluntary organization on environment on the following? (Green Peace Movement)	87,4	86,4	86,9	0,891	93,3	0,504
2	In which state the Chernobyl nuclear accident had happened? (Soviet Union)	79,8	79,0	79,4	0,934	73,3	0,152
3	What important factors for creation of environmental issues? (Rapid growth of humans)	77,3	82,7	80,0	0,430	58,3	0,000*
4	What is name of science sphere of verifying of relations between environment and lives? (Ecological)	68,9	75,3	72,1	0,446	66,7	0,012*
5	What are tourism results made unconsciously on the following? (Decrease of Ground Profit)	68,1	61,7	64,9	0,068	53,3	0,116
6	Where the first nuclear bomb was thrown away (Hiroshima)	15,1	14,8	14,9	0,641	76,7	0,158
7	Which following is reason for DDT' Prohibition on the following? (Missing for long time in the nature)	5,9	7,4	6,7	0,573	26,7	0,000*
8	Which followings are base purposes of environment training? (2 and 3)	5,9	7,4	6,7	0,573	26,7	0,000*
9	Which conditions could be created as a result of air pollution? (Only 1)	38,7	33,3	36,0	0,786	48,3	0,009*
10	In which picture the objective of Ozone layer was shown correctly?(Protect the earth from ultrasonic beams coming from sun)	68,1	64,2	66,2	0,069	18,3	0,900
11	Which is not base elements for pollution of ground on the following? (collection of organic wastes)	40,3	27,2	33,8	0,546	1,7	0,000*
12	Which/what followings are	36,1	34,6	33,4	0,515	3,3	0,000*

	created as a result of growth of gases like CO ₂ , O ₃ , CH ₄ ? (2 and 3)						
13	Which/what followings are among purposes of ÇED? (2 and 3)	62,2	44,4	53,3	0,028	11,7	0,001
14	Which is not positive impact on the following ? (use of agrarian drugs for increase of production)	64,7	54,3	59,5	0,070	35,0	0,075
15	Which is following lives that has spawning risk as a result of tourist travel in our seashore? (Sea turtles)	42,0	38,3	40,2	0,599	41,7	0,000*
16	Which day is world environmental day? (June 5)	61,3	67,9	64,6	0,998	76,7	0,201
17	Which are the following relevant measures to be taken for further environmental protection? (2, 3 and 4)	52,9	45,7	49,3	0,812	41,7	0,040
18	The accumulations deriving from of loads over cleaning power of nature in environment/ (Environmental pollution)	80,7	79,0	79,9	0,206	86,7	0,006*
19	Creation of acids as a result of combination of several gases with wet in atmosphere and ascend to Earth rain waters. (Acid rains)	84,0	82,7	83,4	0,579	65,0	0,038*
20	This is condition where conducting relations of humans and other beings along their lives and being in mutual interaction each other. (Environment)	72,3	76,5	74,4	0,441	70,0	0,038
21	This is heat growth that creates retention of heat energy in atmosphere as a result of absorption of gases like CO ₂ . (Global Warming)	75,6	77,8	76,7	0,623	75,0	0,479
22	This place where organism and population lives naturally (Echo-system)	74,8	70,9	76,9	0,650	70,0	0,027*
	Total Average	59,1	57,5	58,3	0,702	52,9	0,023*

Comparison of answers of students to questions on gender concerning environmental attitudes, is shown in Table 3. Significant difference among genders

was observed in only 2 Articles of totally 63 Articles. We face interesting results in total average and knowledge levels of women and men were 3,34(66,8 %). Knowledge level of women were also higher in 2 different questions (Article 29, Article 33). One of this questions was connected with air pollution and other one was to be careful while making shopping. Although we expected higher knowledge level of women on the subject of shopping, lower level of answers has indicated insufficient knowledge of the students on this subjects. Higher attitude was defined (4,61) for 21 th Article, lower attitude was defined for (1,71) 19. th Article. We didn't expect higher (4,61=>92,2%) attitude of this group in 21 th Article, that has lower average of environmental attitude awareness, but it is also joyful. Although the students refuse purchase of areas lost its forest status, lower attitudes on closing of industry enterprises starting to production without establishing purification in 19 th Article, is also dangerous. Especially, the responds given to this Article, indicates that higher environmental attitude awareness of the group, but they have not sufficient information level on the relevant subjects. Unexpected answers of the students in 19 th Article, thinking human growth in Article 1th (4,22) and Article 55 (4,10) as important factors impacting to environment, can be considered as inconsistency. According to Duan and Fortner (2010), as a result of investigation held in China, the students think that growth of population could be important environmental problem (3,87). In Article 24 th, the students stating there is no sufficient attention to environment in Azerbaijan, pointed out that **population don't warn the person in Article 26, while polluting the environment. This answer also show that they don't pay attention to environment.** Meanwhile, attitude awareness of the group, was defined lower as 66,8%. The important results is lower knowledge level of the students on main relevant subjects as Nuclear Weapons. (Article 27:6-2,86=3,14). Higher level of awareness of the students, on the subjects of endangered life beings (Article 18=4,36), insect drugs (Article 9 20 = 4,51), national parks (Article 22=4,59) and historical places (Article 23+4,57), was observed. Lower level of awareness of the students on desertification (Article 51=2,18) and ending resources Article 53=2,09), was observed. Especially, lower awareness of the students on these 2 Article, is engrossing and distressing. There was only 1 significant difference among students in one question from statistical point of view, while verifying environmental information level of students as per class change. While verifying correct answers to question of which is not effective impact to environment, similar answers of 2 TB and 3 rd class pupils as 67,6% and 67,8%, but 47,1 % percentage of correct answers was defined as lowest percentage.

While verifying average of correct answers given to all Articles, significant difference was not defined among classes from statistical point of view. Average of correct answers of 2 nd, 3 rd and 4 th Classes, was defined by row 58,5%, 56,8% and 59,8%. While verifying answers given to Articles on environmental attitude as per class change, there is no significant difference among the groups as in gender change from statistical point of view. While estimating answers of students on environmental information as per their section, although there is no difference

among them from statistical point of view, highest percentage of correct answers belongs to Biology Section with 60,1%, 59,1% belongs to Ground Protection, lowest percentage of correct answers belongs to Earth Structure and Ground Inspectorship with 57,6 %. Highest information level of students of Biology Section is expected and assumed result. While estimating the questions one by one, although there are not significant results from statistical point of view, but significant differences for answers given to articles among sections, were defined. For example, 62,5% of students gave correct answers to question in which country Chernobyl accident had happened, but 80,8% of biological students gave correct answer to this question. Incorrect answers of Biochemistry students to the question where first Nuclear Bomb had thrown away, is significant result. Although percentage of correct answer of students studying at other sections, is lower, 0% figure is significant result. While verifying average of answers given to 22 questions asked on environmental information, lowest answer percentage had belonged to Ground Structure and Ground Inspectorship with 57,6% highest correct answer percentage had belonged to students of Biology section with 60,10%. There is no significant difference from statistical point of view among the groups. Unlike questions on environmental information, while verifying attitude level on environmental awareness, attitudes of **Azeri students studying at NEU were 3,46 (69,2%), BSU' students were 3,46 (66,8)**. Although there is no significant difference among two groups from statistical point of view, this difference is not higher than environmental information. Significant difference among two groups in 38 questions from 63 questions on environmental awareness, was defined from statistical point of view,

Table 3:

Comparison among awareness and genders on articles of environmental attitude. (T-Test)
(5: highest attitude level;1: lowest attitude level)

No	Articles	Right Answer Percentage and Sig. Values				
		Baku State University		Near East University		
		Woman Sig	Man	M	Sig	M
1	Growth of population is most significant factor threatening environment.	4,29	4,15	4,22	0,106	4,12
2	Wastes of humans couldn't be problem as per purification of environment itself.	3,43 0,000*	3,58	3,50	0,444	2,55
3	Industry wastes pollute environment more than household wastes.	4,04 0,016*	3,83	3,93	0,107	3,40
4	To switch off light will not cause more energy possession.	2,17 0,000*	2,19	2,18	0,917	3,50
5	The humans who have not environmental awareness, pollutes environment.	3,61 0,000*	3,59	3,60	0,886	4,62
6	There are a lot of waters for pollution by humans.	2,40 0,018*	2,25	2,33	0,225	2,08
7	Rapid exhaustion of natural resources, is significant problem.	3,31 0,007*	3,61	3,46	0,209	3,85
8	Global Warming will create a huge tragedies.	4,1 0,037*	4,10	4,05	0,469	4,30
9	The wars will make the greatest damages for environment.	3,23 0,000*	3,07	3,15	0,225	3,80
10	Erosion will be observed in our country.	2,52 0,048*	2,53	2,53	0,94	2,30
11	Noise is also negative impact for our environment.	3,42 0,303*	3,43	3,43	0,925	3,57
12	Radiation of cell phones makes damages to environment.	3,56 0,147*	3,57	3,57	0,969	3,73
13	Increase of cancer and similar deceases in Azerbaijan, derived from radiation in the region.	3,50 0,039*	3,27	3,39	0,157	3,73
14	Ozone layer was verified in America, there is no danger for Azerbaijan (6-score).	3,12 0,845	3,12	3,12	0,972	3,5
15	Breaking forest' trees for buildings is unforgivable.	3,61 0,000*	3,93	3,77	0,060	1,82
16	Water areas should be dried and buildings should be implemented there.	3,19 0,000*	3,16	3,18	0,8	3,73
17	The coal should be preferred for not to pollute environment in homes.	3,56 0,000*	3,57	3,56	0,939	4,5
18	The lives dying are preferred mostly,	4,43	4,28	4,36	0,363	4,5

	but there are a lot of kinds of lives, dying of some is not a problem. (6-score)	0,000*				
19	Industry enterprises should be closed without establishing purification facilities.	1,58 0,160*	1,84	1,71	0,107	1,90
20	Insect drugs used in agriculture, are useful for environment.	4,53 0,645*	4,49	4,51	0,792	4,57
21	There is no dangerous to sell the areas that lost its forest status, by purpose to make profit for country (6-score).	4,65 0,444	4,57	4,61	0,54	4,54
22	State shouldn't permit erection of buildings by purpose of tourism in national parks and forests.	4,59 0,005*	4,59	4,59	0,973	4,25
23	Instead of spending money for historical places, to build up the roads would be profitable for our country	4,60 0,457	4,54	4,57	0,695	5,30
24	There is not sufficient interest to roads (6-score)	2,15 0,000*	2,19	2,17	0,851	1,57
25	We have not enough opportunity to protect environment	2,75 0,000*	2,79	2,77	0,773	3,63
26	I will not warn anyone who pollutes environment, because it is duty of municipality. We pay tax for it.	2,84 0,001*	2,88	2,86	0,819	3,35
27	Nuclear plant should be erected for consumption of energy in Azerbaijan (6-score)	2,85 0,001*	2,88	2,86	0,819	3,35
28	One of significant problem of Azerbaijan is unplanned urbanization.	4,01 0,000*	3,99	4,000	0,887	2,18
29	Air pollution is important problem.	3,60 0,000*	3,79	3,70	0,023	2,55
30	Acid rains is problem of developed country, it will not impact our country (6-score)	3,52 0,128	3,48	3,50	0,841	3,17
	Total Average	3,34 0,047*	3,34	3,34	0,789	3,46

Discussion and Conclusion

Environment is the settings or the conditions where living things are in and pursue their lives. The negative effects of humankind to the environment in which they live cause environmental problems growing in time. Educating people to have consciousness on environmental issues is important for solution of environmental problems and protection of the environment. Consequently, environmental education is the greatest factor in getting conscious individuals (Güney, 2003).

Generally, before has been done a lot of research about environment, environment pollution, environmental education and environmental awareness. For example, Ali Özgür Güley research "Evaluating the level of the students of the University of Abant İzzet Baysal about the global warming"(2006). As a result, the knowledge of the students about the global warming was not found adequate. We believe that the education and courses given by the university governments about the environmental problems would have impact in informing the students and their practices thereon. In addition to that, the activities by the governmental agencies, the print and visual media, and non-governmental organizations have important effects on acquiring a sense of environment by the individuals and behaving towards it. Fulya Öner Armağan research "Elementary school 7th and 8th grade students' knowledge levels about environmental education"(2006) According to findings of the study, 7th grade students are more successful in multiple choice type items; however, there is a different distribution pattern for each open-ended question. Additionally, in all type of items, achievement of male and female students is close to each other. Fatma Taycı Ünal research "A study on the level of determination of the primary students' environmental behaviour, knowledge, consciousness and active participation in Çorlu" (2009) and etc. After that decided to research the level of University students environmental awareness as because it's hot topic nowadays. After that I compare the level of environmental education and awareness Baku State University and NEU azerbaijan students.

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

Obtained results had pointed that, environmental awareness levels of students of BSU (58,25%), were higher than Azerbaijani students studying at NEU (52,88). Unlike environmental information problems, while verifying attitude levels on environmental awareness, attitudes of Azerbaijani students studying at NEU were 3,46 (69,2%), but students of BSU were 3,34 (66,8%). Although there is a significant difference among two groups from statistical point of view, this difference is not higher than environmental information. Significant difference among two groups in 38 questions from 63 on environmental awareness, was defined.

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Azerbaycan'da ve KKTC'de Bakü Üniversitesi Öğrencilerinin Çevre Duyarlılıkları, Çevre Sorunlarına Yönelik Tutumları ve Çevre Eğitimi ile İlgili Bilgi Düzeylerinin Saptanması

Atf:

- Gündüz, Ş., & Aslanova, F. (2012). Usage of knowledge management tools: Determination of the knowledge levels and attitudes of Azerbaijani university students about environmental issues educating in Azerbaijan and TRNC. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 49/A-349-368.

Özet

Problem Durumu : Azerbaycan'da ve KKTC Üniversitelerindeki öğrencilere yeterli düzeyde çevre bilinci verilip verilmediği konusunda karşılaştırma yapılarak, her iki ülke arasındaki farklılıkları ve benzerlikleri ortaya çıkararak eksik kalan konuların geliştirilmesi ihtiyacı olduğu değerlendirilmektedir.

Araştırmanın Amacı : Bu araştırmada Azerbaycan'daki Bakü Devlet Üniversitesi ile KKTC Üniversitelerinde öğrenim görmekte olan öğrencilerin çevre bilinç düzeylerinin anket yardımı ile belirlenmesi ve öğrencilere çevre bilincinin, çevre eğitimi desteği ile artırılması amaçlanmıştır. Azerbaycan'da Üniversite öğrencilerinin çevre bilinci konusunda herhangi bir bilimsel araştırmanın yapılmamış olması, bu araştırmanın önemini artırmıştır. Bu araştırma ile Azerbaycan'daki Üniversite öğrencilerinin bilincinin belirlenmesinin yanı sıra çevresel kirlilik konusunda etkili bir çevre eğitiminin Üniversite öğrencilerine önemli katkı sağlayacağı düşünülmüştür. Yapılan anket çalışması Azerbaycan'daki çevre kirliliğinin, öğrencilerin eğitim düzeyleri ile çevre bilinç düzeyleri arasındaki ilişkisi belirlenerek çevre eğitiminin çevresel sorunlar hakkında bilinç kazanma ve farkındalık yaratmadaki önemli rolünü ortaya koyarak katkı sağlayacağı düşünülmüştür. Bu araştırmada çevre eğitiminin Azerbaycan'da ve KKTC Yakın Doğu Üniversites öğrencilerine kazandırılabilmesi, bu yöndeki eğitime önem vererek, öğrencilere bu konuda gerekli bilgi, beceri ve duyarlılığın kazandırılması ile mümkündür. Bu çalışma, çevre eğitiminin Üniversite öğrencilerinin çevreye karşı olan farkındalıklarını nasıl etkilediğinin, bu doğrultuda nasıl bir çevre eğitimi verilmesi gerektiğinin açıklanabilmesi açısından somut bir örnek olacaktır. Ayrıca

öğrenciler, çevre eğitimi ile doğayı algılama, tanıma ve koruma açısından yaşadığı alana yönelik bir çevre bilinci kazandırılması amaçlanmaktadır.

Araştırmanın Yöntemi: Bu çalışmada veri toplama aracı olarak "çevre tutum anket"i kullanılmıştır. Araştırmacı tarafından geliştirilen veri toplama aracının geliştirilmesi yapılan bu araştırmanın temel yapısının oluşturulması ve belirlenen araştırma amaçlarına ulaşılabilmesi için konuyla ilgili literatür (tez, makale, bildiri, kitap, vb.) incelenmiş ve veri toplama aracının kavramsal yapısı ve ana çerçevesi oluşturulmuştur. Bu araştırmanın evrenini, 2010 - 2011 öğretim yılında Azerbaycan'da Bakü Devlet Üniversitesinde öğrenim gören öğrenciler ile KKTC Yakın Doğu Üniversitesi oluşturmaktadır. Araştırmaya katılan öğrencilerin çevre eğitimine göre bilgi düzeyleri anketlerdeki sorulara göre ortaya konmuş ve yorumlanmıştır. Veri toplama aracının güvenilirlik çalışması için güvenilirlik katsayısı olan Cronbach Alpha değeri hesaplanmıştır. Ölçeğin Cronbach Alpha değerini düşürebilecek olan maddeler çıkarılarak ölçeğin son hali oluşturulmuştur. Ölçeğin kapsam ve geçerliliğini belirlemek amacıyla uzman görüşleri alınmış, boyutlara ilişkin ifadeler oluşturulurken anlatımın açık ve anlaşılır bir dille yazılmasına özen gösterilmiş ve anlam kargaşasına yol açabilecek ifadelerin kaçınılması. Yapı geçerliliğini ve güvenilirliğini belirleyebilmek için analiz sonuçlarına göre başlangıçta 35 madde olarak hazırlanan ölçek analizler sonucunda 30 maddeye düşürülmüştür. Bu ölçeğin Cronbach Alpha Güvenirlik Katsayısı 0.915 olarak bulunmuştur. Bu değer literatürde ölçeğin güvenilirliği açısından yeterli görülen bir değerdir. Veri toplama aracı olarak öğrencilerin anketler verdikleri yanıtlar nitel yöntemde analiz edilmiştir. Anketlerden elde edilen veriler bilgisayar ortamında SPSS 16.0 (Statistical Packet For Social Sciences) (Sosyal Bilimler İçin İstatistik Programı) programı kullanılarak çözümlenmiştir. Araştırmaya katılan Üniversite öğrencilerinin çevre sorunlarının bilinç ve farkındalık durumunun katılımcıların cinsiyetlerine göre farklılık gösterip göstermediğinin tespitinde ilişkisiz t testi, eğitimin durumuna göre farklılık gösterip göstermediğinin tespitinde ise ANOVA - dan sonra Duncan (%5) testi uygulanmıştır. Araştırmada öğrencilerin çevre eğitiminin yeterliliğine ilişkin davranışları incelemek üzere frekans ve yüzde dağılımlardan yararlanılmıştır.

Bulgular ve Yorumlar : *Sonuç itibarıyla çevrede oluşan olumlu veya olumsuz koşullar organizmalardan kaynaklanan farklılıklar bir yana bırakılırsa etkilenmeler de ortak olacaktır. Yani olumlu koşullar bütün canlıları olumlu, olumsuz koşullar da olumsuz olarak etkileyecektir. İnsanlar açısından da cinsiyet farkı sonucu değiştirmeyecek, olumlu ve olumsuz sonuçlar her iki cinsiyeti de aynı yönde etkileyecektir. Yani, erkekleri olumlu etkileyen koşullar ve sonuçlar kadınları da olumlu etkileyecektir. Aynı şekilde olumsuz koşullarda her iki cinsiyeti olumsuz etkileyecektir. Ancak yaratılıştan kaynaklanan bazı farklılıklar nedeniyle cinsiyetler arasında etkilenme oranı, düzeyi farklı olabilir. Özellikle olumsuz koşullar ve onun doğal sonucu olan olumsuz sonuçlardan her iki cinsiyetteki çocuklar, her iki cinsten yaşlılar, hamile kadınlar, her cinsiyetten hastalar, özellikle kronik hastaların etkilenme düzeyleri ve oranları doğal olarak farklılıklar gösterecektir.*

Araştırmanın Sonuçları ve Önerileri: Araştırma Üniversite öğrencilerinin çevre kavramı ile ilgili hazırlanmış sorulardan oluşan anketde göstermiş oldukları başarı düzeylerinin, cinsiyet, sınıf ve bölüm düzeyleri ile ilişkilerini belirlemek amacıyla yapılmıştır. Araştırmada öğrenciler çevre bilinçlerinin yüksekliğini birkez daha göstermiş ve ders kitapları dışında da çevreyle ilgili kitaplar okuduklarını belirtmişlerdir. Yapılan bu

araştırmada Üniversite öğrencileri çevre bilincinin artması için gazete, dergi ve TV'lerde çevre ile ilgili programlara daha çok yer verilmesi gerektiğini belirtmişlerdir. Öğrenciler çevre eğitimi konusunda gönüllü kuruluşlar yapılarak, düzenli eğitimler verilerek, duyarlı olan grupları eyleme geçirerek davranış değişikliklerinin oluşturulması sağlanmalıdır. Araştırmada anketdeki bilgi sorularına öğrencilerin verdikleri cevaplara göre, özellikle ozon tapakası, asit yağmurları vb. sorularda çevre konusunda öğrencilerin bilgi sahibi oldukları söylenebilir. Araştırmaya katılan öğrenciler nükleer silah denemelerini haksız buluyorum sorusuna verdikleri cevaplara göre kararsız oldukları belirtilmiştir. Ülkemizde çevreye yeterince önem verilmediğini düşünen ve ülkemizin doğayı korumaya para ayıracak kadar zengin bir ülke olduğunu düşünen katılımcıların arasında anlamlı bir fark bulunmamıştır. Çevre konusunda, çevre için düzenlenen faaliyetlerde gönüllü öğrenci katılımı sağlanmalı ve bu çalışmalarda öncelikle çevreye zararlı kimyasal maddeler, çöplerin sınıflandırılması ve geri dönüşüme yer verilmelidir. Örgün eğitim programlarında çevre eğitime yer verilmelidir. En azından öğretmenler ve yöneticiler hava, su, ekolojik denge ve çevre kirliliğini konusunda bilinçlendirilmeli ve tüm öğretim kademelerine uygun olarak çevre duyarlılığına ilişkin bilimsel etkinlikler sunulmalıdır. İyi örgütlenmiş ve görevinin hakkıyla yerine getiren bir Çevre Bakanlığı, toplumun sağlığını korumak, ucuz hammadde elde etmek, çevre düzenini sağlamak, ekolojik dengeyi korumak gibi önemli işlevler üstlenmekle, o ülkenin sağlık bakanlığı, sanayi bakanlığı ve yerel yönetimlerin çalışmalarına katkıda bulunacak ve toplumun sosyal refah seviyesini de artıracaktır. Sağlıklı nesiller elde etmek, sorunsuz toplumlar oluşturmak, ucuz ve sürekli üretim yapabilmek, atıkların tekrar kullanılabilir hale getirmek, israfı önlemek, yaşanabilir bir dünya meydana getirmek insanlığa hizmet kadar, bütün canlılara da hayat hakkı tanımadır.

Anahtar Sözcükler: Çevre, çevre eğitimi, kirlenme, çevre bilgisi, çevre tutum ölçeği

