University students' athlete's attitudes towards environment

Mehmet Fatih Karahüseyinoğlu

School of Physical Education and Sports, Firat University, Turkey

Abstract: The sample of this study consists of students who receive education in different Universities and do sports in various branches in Turkey. "Environmental Attitude Scale" used in the study was developed by Uzun and Sağlam in 2006. Female students' ($\bar{X} = 93.02$) total environmental attitude score averages are higher than male students' ($\bar{X} = 90.69$) when sporter students' environmental attitudes are examined as gender-based. It is seen that environmental attitude scores is varied and this difference is in favor of those playing football according to branches of sports. The highest score belongs to footballers, and also the lowest score average belongs to wrestlers in environmental attitude scores.

Key words: Environment, Athlete, Student, Attitude, Environmental Attitude.

INTRODUCTION

A human's struggle with nature was continued since it comes into existence. Ambition for dominating the nature in human causes to harm to environment where they live. Because the nature's ability to clean the waste of human completely is not yet taken place, while it has the ability to clean its own waste through ecosystem. The endless demand and desire in human beings, in other words perception of hedonism, brought the question of I wonder how do I get a little more to mind. Human beings' passion for hedonism that increasingly continues, led to the conclusion of consuming the nature and themselves with scientific and technological developments for the sake of earning more and living better.

Experiences in the present day set forth that problematic trends of the past were changed in many areas with impact of macro changes and transformations. Also the process of globalization and modernization obliges to human beings, animals and nature to endure the irremeable threats as well as many changes (Beck, 1992). This century indicates a historical process in which solutions about human again are sought by human beings. In this context, the first thing that comes to mind is various problems brought about by it, depending upon increasing in the number of human beings, arising from living together. Human beings' living together and unproficiently and unconsciously desire to use the environment presented to themselves gratuitous may cause irrecoverable problems. Due to these problems, it is emphasized that the World turned human beings' back on gradually and is lost human beings' grasp on.

It is noted that priority problems in the World are population growth, industrialisation, non-planned urbanization, environmental problems when we put them in order. When human factor in these problems is considered, a human's unconscious behaviors and desires have an important role. Human's living together and unconscious use to the environment brought about the investigation of the reason of these problems and making solution suggestion, as well as it caused various problems. It is emphasized that behavior change is required in human beings for defining, knowing the problem and formation of problem-based awareness at the beginning of the solution suggestion.

Human beings recognize that they polluted the World, accordingly the environment, although it is late. In this context, it is reported that environmental education that will set off this awareness in Turkey is a new process, although the historical development of human beings' awareness and solution suggestions for problems about environment is based on many years ago in many advanced and modern country of the World (Kasapoğlu, & Turan, 2012).

It is possible to encounter study more than one in which attitudes for environment is measured. We see that New Ecological Paradigm (NEP) scale developed by Dunlap and Van Liere is frequently used in International Literature (Dunlap, 2008; Dunlap, Van Liere, Mertig, & Jones, 2000; Lang, 2011; Erdoğan, 2009). Examples of various scale created by taking into account different criteria, were applied in specific to the World and Turkey. The basic similarities in these studies are scales that are formed by different criteria and are intended for determining the sensitivity of the environment of human beings (Çabuk, & Karacaoğlu, 2003; Uzun, & Sağlam, 2006; Berberoğlu, & Tosunoğlu, 1995). Also "Environmental Attitude Scale", consisting of 27 articles, developed in 2006 by Uzun and Sağlam who led many scientific studies was used in many studies in Turkey (Kaya, Akıllı, & Sezek, 2009; Bozkurt, 2011; Gürbüz, & Çakmak, 2012).
MATERIALS AND METHODS

The sample of this study consists of students who receive education in different Universities and do sports in various branches in Turkey. The study is limited with University students who do sports in Turkey.

"Environmental Attitude Scale" used in the study was developed by Uzun and Sağlam in 2006. This scale consisting of two lower dimensions, including "Environmental Behavior" (13 articles), and "Environmental Thought" (14 articles) is 5-point likert type. Uzun and Sağlam (2006), Cronbach's alpha internal coefficient of consistence is found $\alpha = .80$, two half test correlations are found .76 of Environmental Attitude Scale in which 969 students were participated. Cronbach's alpha internal coefficient of consistence is found $\alpha = .84$ of Environmental Attitude Scale in a study in which 304 students who receive education in different Universities were participated.

Implementation of the scale was started, by indicating that volunteer individuals will participate in study, while researcher is making necessary informing to students about content of Environmental Attitude Scale. Students' environmental attitude scores were calculated through various statistical programs after transferring data obtained to computer environment. Total 27 articles that are divided into two sub titles as "Environmental Behavior Subscale" and "Environmental Thought Subscale" and including 16 of them are positive, 11 of them are negative are available in the scale.

These articles were scaled in five categories as "Agree Absolutely/Exactly: 5.00-4.21", "Agree/Generally: 4.20-3.41", "Agree Sometimes/Partially: 3.40-2.61", "Agree Slightly/Don’t Agree: 2.60-1.81", "Never/Never Agree: 1.80-1.00" in Environmental Behavior Subscale and Environmental Thought Subscale. Positive sentences were scored between 5 and 1 starting from category of "Agree Absolutely/Exactly", and also negative sentences were scored between 1 and 5 starting from the same category. The highest total score to be obtained from scale was adopted as an indicator of that interest and awareness and sensitivity against environment is increased.

The total score averages of Environmental Behavior and Environmental Thought Subscales of the students were calculated as score average of Environmental Attitude Scale. While searching for statistical difference; an evaluation was carried out, by considering the results of t-test for independent groups for paired comparison, One Way Anova test for comparisons more than two, Gabriel test results for between which groups difference is found. The level of significance was taken as $p< 0.05$ in statistical calculations.

RESULTS AND DISCUSSION

The participation of total 304 students who receive education in different Universities and classes in Turkey, including 228 of them are male (75%), 76 of them are female (25%) was ensured with the aim of measuring environmental attitude scores. The majority of participants (79.9%) whose average of ages are 20.48±2.47 are residing in city centers and average monthly income of almost half of them (44.7%) is between 1001-2000 TL. When branches of sports in which students were participated actively are considered; sorting is as Volleyball (15.8%), Football (15.5%), Handball (13.8%), Athleticism (12.5%), Taekwondo (12.2%), Wrestling (6.6%), Tennis (5.9%), Boxing (5.3%).

The highest total score is 135 and the lowest total score is 27 that can be obtained from Environmental Attitude scale consisting of total 27 articles.

| Table 1: General Distribution of Environmental Attitude Scores.  |
|---|---|---|---|---|---|
| Groups | N  | Min | Max  | $\bar{X}$ | S  |
| Average Rating | 304 | 1.77 | 4.77 | 3.68 | 7.30 |
| Total Average Rating | 304 | 68 | 106 | 91.27 |

It is calculated that the highest total average score is 106, the lowest total average score is 68 obtained by sporters from environmental attitude scale, and total average of the scale is $\bar{X} = 91.27$ and standard deviation is 7.30. It is closer to "Agree" (4.20-3.41) option, because average score obtained by sporters from environmental attitude scale consisting of 27 articles is $\bar{X} = 3.68$.

| Table 2: Distribution of Environmental Attitude Scores According to Gender.  |
|---|---|---|---|---|---|
| Groups | N  | Mean | sd  | df | T  | P  |
| Male  | 228 | 90.69 | 7.58 | 302 | -2.427 | 0.01* |
| Female | 76  | 93.02 | 6.09 | | |  |

* $p< 0.05$

Total environmental attitude score averages of female students ($\bar{X} = 93.02$) are higher than male students ($\bar{X} = 90.69$). This difference between male and female students was considered significant statistically [$t(302)= 0.01$, $p< 0.05$].
Table 3: Anova Test of Environmental Attitude Scores According to Branches of Sports.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3427.980</td>
<td>8</td>
<td>428.497</td>
<td>9.932</td>
<td>0.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12727.254</td>
<td>295</td>
<td>43.143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16155.234</td>
<td>303</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05

It was understood from Anova test table that environmental attitude scores were varied and also this difference was considered significant according to branches of sports that students engage in actively (Table 3; F: 9.932, 0.00 p<0.05).

Table 4: Gabriel Test of Differentiation in Environmental Attitude Scores According to Branches of Sports.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>X</th>
<th>Ss</th>
<th>F</th>
<th>p</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Football</td>
<td>47</td>
<td>97.04</td>
<td>7.1352</td>
<td>9.932</td>
<td>0.00*</td>
<td>2, 4, 5, 6, 8, 9</td>
</tr>
<tr>
<td>2 Basketball</td>
<td>38</td>
<td>91.21</td>
<td>6.3932</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3 Handball</td>
<td>42</td>
<td>94.30</td>
<td>5.92839</td>
<td></td>
<td></td>
<td>4, 6, 9</td>
</tr>
<tr>
<td>4 Volleyball</td>
<td>48</td>
<td>89.79</td>
<td>6.08087</td>
<td></td>
<td></td>
<td>1, 3</td>
</tr>
<tr>
<td>5 Tennis</td>
<td>18</td>
<td>89.50</td>
<td>8.02386</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6 Wrestling</td>
<td>20</td>
<td>85.70</td>
<td>5.75006</td>
<td></td>
<td></td>
<td>1, 3, 7</td>
</tr>
<tr>
<td>7 Boxing</td>
<td>16</td>
<td>92.81</td>
<td>7.85042</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>8 Taekwondo</td>
<td>37</td>
<td>89.70</td>
<td>5.88720</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>9 Athleticism</td>
<td>38</td>
<td>87.42</td>
<td>6.97343</td>
<td></td>
<td></td>
<td>1, 3</td>
</tr>
<tr>
<td>Total</td>
<td>304</td>
<td>91.27</td>
<td>7.30189</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05

It is seen that there is a relation in favor of football branch between football and other branches (except for handball and boxing) and between handball and volleyball, wrestling and athleticism, and also between wrestling and handball and boxing according to results of Gabriel test that is one of Post-Hoc tests in order to determine the differentiation of environmental attitude score averages and between which branches this difference is found according to branches of sports.

Discussions:

Students' environmental attitudes were investigated through various scales in many studies carried out for awareness and attitude of environmental problems in Turkey. The studies in which University students' environmental attitudes are investigated are frequently encountered in the literature, and also it is remarkable that there is no study specific to University students who do sports. The study developed with reference to assumption about environmental attitudes of University students who do sports is varied aims to remedy the deficiency in this field.

Participation in the study by 304 sporter students from different University in Turkey was ensured with the aim of measuring the environmental attitude scores. Branches of sports that students were participated actively; it is sorted as Volleyball, Football, Handball, Athleticism, Taekwondo, Wrestling, Tennis, Boxing.

Average score obtained by sporter students from "environmental attitude" scale is $\bar{X} = 3.68$ showed that it is closer to "agree" option. In line with this finding, it is possible to indicate that sporter students' environmental attitudes are positive and affirmative. With different expression, it can be indicated that sporter students have environmental awareness or sensitivity. It is possible to encounter similar results (Özmen, Çetinkaya, & Nehir, 2005; Ek, Kilç, Öğdüm, Düzgün, & Şeker, 2009; Deniș, & Genç, 2007; Çınar, Akduran, Dede, & Alınkaynak, 2010; Demir, Gürbüz, & Karaküçük, 2009) in studies carried out in different dates including University students (Fusco, Snider, & Luo, 2012; Reddy, & Danie, 2004; Arnold, 2012; Levine, & Strube, 2012; Erdoğan, 2009; Aydin, & Cepni, 2010). In this context, also different results were obtained among studies including international students. It was indicated that university students' environmental attitudes are low in a study carried out in China (He, Hong, Liu, & Tiefenbacher, 2011). It was indicated that students' attitudes towards the environment are positive and these are lowered in some periods in a study carried out incrementally in different dates among students of military academies in South Africa (Smit, 2012). Giving similar results to studies carried out without pointing out states of being sporter of them by the environmental scores of University students who do sports in Turkey did not change that participants are sporter students.

No decline in students' environmental problems indicates that there are problems at the stage of conversion of attitudes into action, although their score averages obtained from these and other scales are at the adequate level in Turkey. Putting things known by human beings into practice requires habit, and also the time factor has a place in the acquisition of these habits. It was observed that students' attitude score averages are higher in proportion to behavior in the studies in which their behavior scores and attitude scores are compared (Kaya Akıllı, & Sezek, 2009). In fact, according to Braus, environmental education should dominate not only knowledge and process skills; and also attitude, life skills and actions (Braus, 1995). The objectives of environmental education are determined in 1977 Tbilisi Declaration that is also signed by Turkey, and in relation
to attitude, also individuals and societies' certain value judgment and sensitivity for environment, and purpose of ensuring acquisition of active participation request for environment protection and improvement were mentioned (Ünal, Mançuhan, & Sayar, 2001). If this information is converted into action but fail to constitute attitudes, the situation should be reviewed.

Female students' ($\bar{X} = 93.02$) total environmental attitude score averages are higher than male students ($\bar{X} = 90.69$) when sporter students' environmental attitudes are examined as gender-based (Table 2). This difference between male and female students was considered statistically significant ($t(302)= 0.01 p> .05$). It is possible to encounter many studies in which it is observed that score averages in favor of females are increased in gender-based comparisons (Atasoy, & Ertürk, 2008; Şama, 2003; Gökçe, Kaya, Aktyay, & Özden, 2007; Gürbüz, & Çakmak, 2012; Aydin, & Çepni, 2010). We see in our study that similar results were obtained in different studies carried out on similar university students; it was concluded that female students are more sensitive to the environment in proportion to males in two different studies in which 554 and 220 students' participations are ensured. This gender-based differentiation was considered statically significant (Ek, Kılıç, Öğdüüm, Düzgün, & Şeker, 2009; Deniş, & Genç, 2007). It was indicated that there are different results between male and females in the studies in which relation between knowledge, behavior and attitudes are investigated as gender-based (Levine, & Strube, 2012).

It was understood from Anova test table that environmental attitude scores were varied and also this difference was considered significant according to branches of sports that students engage in actively (Table 3; F: 9.932, 0.00<0.05). It is seen that there is a differentiation in favor of those playing football between basketball, volleyball, tennis, wrestling, taekwondo and athleticism from football and other branches, according to Gabriel test results in which environmental attitude score averages are differentiated according to branches of sports and it is investigated that between which branches differential is found (Table 4). The highest score average belongs to footballers ($\bar{X} = 97.04$), the lowest score average belongs to students in branch of wrestling ($\bar{X} = 85.70$) within environmental attitudes score averages. The significant differentiation of environmental attitude score averages between branches should be examined; by also taking into account the whether area in which branches of sports are performed is open or close. It should be considered that game can be performed in open area and green areas that require special care in a different study in which reasons of incensement of environmental attitude score averages of students in branch of football are examined. The effect bringing environment to mind of green should be considered in next studies, because football game is played in open area and green fields. According to our environment, existence of a detailed study that will be carried out in this field will cause us to get descriptive answers, due to, in the literature, there is no study in which environmental attitude scores are examined between sporters or branches of sports.

Showing similarity by incensement of environmental attitude score averages of university students and University students who do sports in the studies in which environmental awareness is investigated has concluded that doing sports is not a determinative factor in university students' environmental awareness.

Protection of the environment is a duty of each sensitive individual, not only environmentalists (Erten, 2005). More active roles should be given to sporters and sports lovers on the protection of the environment in order to make sport which is a universal conversation language in the world more effective on increasing the environmental awareness of the sport. In this context, environmentalist sporters will ensure that environmental problems are more understandable, by speaking the universal language of the world.

REFERENCES

DOI: 10.1080/13504622.2011.589000


Denes, H., H. Genç, 2007. Environmental science students have taken the course and not the class teacher’s attitudes towards the environment and environmental science course and compare their success, *Mehmet Akif Ersoy University Journal of Education Faculty*, 8(13): 20-26.


