



Investigation of The Environmental Interest of Students Who Spend Their Leisure in The School Gardens

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Abstract

This study aimed to examine the interest of students who spend their leisure in the school garden towards the environment. The study group of the research consisted of 51 male and 229 female students studying at Şehit Onbaşı Murat Şengöz İmam Hatip Secondary School in the Arnavutköy district of Istanbul. The data were collected online via Google forms. In addition to demographic information, the " Secondary School Environmental Interest Scale " developed by Şentürk (2020) was used as a data collection tool. As a statistical process, the data were evaluated in IBM SPSS (version 24.0) statistical package programme. A normality test was performed to determine whether the study data showed normal distribution and non-parametric tests were used in statistical analysis due to the lack of normal distribution. In this context, Mann Whitney-U and Kruskal Wallis tests were used in the study. According to the results, no significant difference was found in age and grade level, while a significant difference was found in the biodiversity sub-dimension according to gender. As a result, it was concluded that although the interest of the students who spend their leisure in the school garden is unrelated to their age, girls are more interested in the environment and this situation did not differ regardless of the grade level.

Keywords: Leisure, School garden, Student, Interest in the Environment

Serbest Zamanlarını Okul Bahçesinde Geçiren Öğrencilerin Çevreye Karşı İlgilerinin İncelenmesi

Özet

Bu çalışmanın amacı, serbest zamanlarını okul bahçesinde geçiren öğrencilerin çevreye karşı ilgilerinin incelenmesidir. Araştırmanın çalışma grubunu; İstanbul İli Arnavutköy ilçesi Şehit Onbaşı Murat Şengöz İmam Hatip Ortaokulunda öğrenim gören 51 erkek, 229 kız öğrenci oluşturmaktadır. Veriler Google form aracı uygulanarak online ortamda toplanmıştır. Veri toplama aracı olarak demografik bilgilere ek olarak Şentürk (2020) tarafından geliştirilen "Ortaokul Çevre İlgisi Ölçeği" kullanılmıştır. İstatistiksel işlem olarak Veriler, IBM SPSS (version 24.0) istatistik paket programında değerlendirilmiştir. Çalışma verilerinin normal dağılım gösterip göstermediğini belirlemek adına normallik testi yapılmış ve normal dağılım göstermemesi nedeniyle istatistiksel analiz olarak non-parametrik testlerden yararlanılmıştır. Bu bağlamda çalışmada Mann Whitney-U ve Kruskal Wallis testleri kullanılmıştır. Elde edilen bulgulara göre yaş, sınıf düzeyi açısından anlamlı bir farklılığa rastlanmazken, cinsiyete göre biyoçeşitlilik alt boyutunda anlamlı farklılığa rastlanmıştır. Sonuç

olarak, serbest zamanlarını okul bahçesinde geçiren öğrencilerin çevreye karşı ilgilerinin yaşları ile ilgili olmamakla birlikte kızların daha ilgili oldukları ve bu durumun hangi sınıf düzeyinde olursa olsun farklılık göstermediği sonucuna varılmıştır.

Anahtar kelimeler: Serbest zaman, Okul bahçesi, Öğrenci, Çevreye Karşı İlgil

Introduction

With the definitions given for the concept of time, which emerges in different forms and is abstract, a concrete response has been tried to be imposed. Although conceptually time is not tangible and invisible, it is an important planning resource that ensures the continuity of our lives (Demiral, 2018). In the definitions related to the concept of leisure, "benefit", "preference", and "increased time" expressions are the issues to be emphasised. However, the characterisation of all the time left from work as leisure has lost its validity today. In order for the remaining time other than our obligations to be considered leisure, the time in question must be utilised only for a beneficial activity. Over time, the importance attributed to leisure time has gradually increased with the advances in technology and modernisation, and the time allocated to leisure has varied to minimise the effects of stress caused by the intensity of daily work and the negativities caused by city life (Beşikçi, 2016).

The environment is defined as all kinds of living and non-living factors that affect a living creature or a living community throughout their lives. The environmental balance, which has been functioning spontaneously for centuries, has now deteriorated in such a way that it can no longer fulfil this function. The wastes that nature cannot contain within its structure and the amount of these wastes have reached serious dimensions in the environmental balance, and they continue to increase. Following this, people's plundering of nature and their thoughtless use of it for their interests constitute the basis of many environmental problems encountered today. Being aware of the causes and consequences of these will play a motivating role in our activities for the protection of the environment (Erten, 2005). Therefore, environmental problems are possible not only with technology or laws but also with the change in individual behaviours. Changes in behaviours require changes in attitudes, knowledge and value judgements. The formation of positive attitudes, consciousness and value judgements towards the environment is possible with effective environmental education (Özer, 1991; Soran et al. 2000; Altın et al. 2002). In this case, the main cause of ecological change is individuals and the solution should be searched. Humanity needs to gain very important responsibilities to protect this balance. The development of environmental awareness in individuals is closely related to knowing what kind of prior knowledge they have about the environment. Since environmental education appeals to the cognitive, affective and psycho-motor areas of the students, it provides the development of attitudes towards the environment as well as the transformation of these attitudes into behaviour while transferring information about the environment to individuals. Environmental education, which starts with primary education, is shaped by secondary education and takes its

final form with the university. According to the results of international studies on environmental education, the education level where individuals can receive environmental education most efficiently is secondary education. The most important factor in achieving the aims of environmental education is the teacher (Ünal & Dımışkı, 1999; Tuncer et al. 2004).

In this context, gaining this awareness at the secondary school level is essential. From this perspective, this study aimed to examine the interest of students who spend their leisure in the school garden towards the environment.

METHOD

Study Model

The general survey method was used in this study. This model is known as one of the descriptive research methods. This model is based on describing a situation that exists in the past or present as it is (Karasar, 1994).

Study Group

The study group was selected by convenience sampling method, one of the non-random sampling methods. The population of the study consists of secondary school students and the sample consists of students studying at Şehit Onbaşı Murat Şengöz İmam Hatip Secondary School in Arnavutköy district of Istanbul. The study group of this research consisted of 51 male and 229 female students

Table 1. Descriptive statistics of the participants

Groups	Frequency (n)	(%)
Age		
9-11 years old	132	47,1
12-14 years old	148	52,9
Total	280	100,0
Gender		
Male	51	18,2
Female	229	81,8
Total	280	100,0
Grade		
5.grade	71	25,4
6.grade	76	27,1
7.grade	77	27,5
8.grade	56	20,0
Total	280	100,0

When Table 1 was analysed, it was seen that 52.9% of the participants were 12-14 years old, 5.4% were 9-11 years old, 18.2% were male, and 81.8% were female. Moreover, 27.5% were in the 7th grade, 27.1% were in the 6th grade, 25.4% were in the 5th grade and 20.0% were in the 8th grade.

Data Collection Tools

In the study, personal information form (age, gender, grade) and secondary school environmental interest scale were used.

Secondary School Environmental Interest Scale (SSEIS)

In the study, the "Middle School Environmental Interest Scale" developed by Şentürk & Selvi (2020) was used to determine the environmental interest of 8th-grade students. The scale consisted of a total of 25 items and 3 factors, including 11 items in the "Human and Environment Relationship" dimension, 9 items in the "Biodiversity" dimension and 5 items in the "Natural Events" dimension. This 3-point Likert-type scale was modelled as '1-I am not interested in', '2-I am a little interested in' and '3-I am very interested in' for each item. Şentürk & Selvi (2020), who developed the scale, found the Cronbach alpha reliability coefficient of the scale as 86.

Analysing the Data

The data were evaluated in IBM SPSS (version 24.0) statistical package programme. A normality test was performed to determine whether the study data showed normal distribution and non-parametric tests were used as statistical analyses due to the lack of normal distribution. In this context, the Mann-Whitney U test and the Kruskal-Wallis test were used in our study.

RESULTS

Table 2. Mann-Whitney U Test results according to "Age" of the SSEIS score

SSEIS	Age	N	Mean Rank	Total Rank	U	P
Human and Environment Relationship	9-11	132	145,59	19218,00	9096,000	,319
	12-14	148	135,96	20122,00		
	Total	280				
Biodiversity	9-11	132	150,38	19849,50	8464,500	,053
	12-14	148	131,69	19490,50		
	Total	280				
Natural Events	9-11	132	149,07	19677,50	8636,500	,089
	12-14	148	132,85	19662,50		
	Total	280				

When Table 2 was analysed, no significant difference was observed in all sub-dimensions (U=9096,000; 8464,500; 8636,500 $p>0.05$) according to the age variable.

Table 3. Mann-Whitney U Test results regarding "Gender" of the SSEIS score

SSEIS	Gender	N	Rank mean	Total rank	U	P
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Human and Environment Relationship	Male	51	125,24	6387,00		
	Female	229	143,9	32953,00	5061,000	,136
	Total	280				
Biodiversity	Male	51	112,91	5758,50		
	Female	229	146,64	33581,50	4432,500	,007
	Total	280				
Natural Events	Male	51	132,06	6735,00		
	Female	229	142,38	32605,00	5409,000	,403
	Total	280				

When Table 3 was analysed, it was seen that there was a significant difference in the Biodiversity sub-dimension ($U=4432,500$; $p<.05$) according to the gender variable.

Table 4. Kruskal-Wallis Test Results of SSEIS scores according to "Grade" variable

SSEIS	Grade	N	Mean Rank	Sd	X ²	P
Human and Environment Relationship	5.Grade	71	158,94	3	5,237	,155
	6.Grade	76	136,57			
	7. Grade	77	130,33			
	8. Grade	56	136,44			
	Total	280				
Biodiversity	5.Grade	71	162,26	3	6,928	,074
	6.Grade	76	132,61			
	7. Grade	77	133,56			
	8. Grade	56	133,17			
	Total	280				
Natural Events	5.Grade	71	154,34	3	2,958	,398
	6.Grade	76	136,39			
	7. Grade	77	137,18			
	8. Grade	56	133,10			
	Total	280				

When Table 4 was analysed, no statistically significant difference was found in the SSEIS according to the grade variable ($p>0.05$).

DISCUSSION AND CONCLUSION

An evaluation was performed based on the obtained results from the study conducted to examine the interest of students who spend their leisure in the school garden towards the environment. In the study, 52,9% of the participants were 12-14 years old, 5,4% were 9-11 years old, 18,2% were male, 81,8% were female, and 27,5% were in the 7th grade, 27,1% were in the 6th grade, 25,4% were in the 5th grade and 20,0% were 8th grade. No significant

difference was detected in all sub-dimensions ($U=9096,000$; $8464,500$; $8636,500$ $p>0.05$) according to the age variable. It can be said that it can be an expected result that individuals in this age group have weak environmental interest, consciousness and sensitivity. A significant difference was detected in the Biodiversity sub-dimension ($U=4432,500$; $p<.05$) according to the gender variable. In a similar study conducted by Erten (2004) with secondary school students, it was concluded that students' interest in environmental protection was higher in female students than male students at all grade levels except 5th grade. Alp et al. (2006) found that the environmental attitude scores of female students were significantly higher than male students in a study conducted at the primary school level in Ankara province. According to the study conducted by Yılmaz et al. (2004), it was concluded that the environmental attitudes of students at the primary education level did not differ significantly according to gender, but there was a significant difference according to gender at the secondary education level. In a study conducted by Öküzçüoğlu (2019) with secondary school students, it was stated that the gender of the participants created a significant difference in their attitudes towards the environment and concluded that this significant difference was in favour of female students. In a similar study conducted by Şama (2003), it was found that the attitudes of female participants towards the environment were higher than male participants. Önder (2015) attributed the higher environmental awareness of female students compared to male students to the factor that girls were more interested in and sensitive to nature. Yaprak (2019) found that 8th-grade students' behaviours towards the environment and their willingness to take action did not show a significant difference according to the gender of the participants; however, the total scores of female students' attitudes, feelings and thoughts towards the environment were higher than male students. When the literature was examined, there were more than one parallel and contrasting studies related to this research. From this point of view, in this study, it was seen that the biodiversity sub-dimension of the SSEIS was significant in favour of girls. No statistically significant difference was found in the SSEIS according to the grade level variable ($p>0.05$). In the study conducted by Kasapoğlu & Turan (2008), the general environmental attitudes and behaviours of 8th-grade students were examined and it was concluded that the general attitudes of the students towards the environment were high. Yaprak (2019) revealed that 8th-grade students' attitudes towards the environment were at a high level in his study. In a study, Kazazoğlu (2020) concluded with university students that their environmental awareness levels were high. All these studies in the literature contrast with our research. It can be said that this may be due to regional and cultural reasons.

As a result, it was concluded that although the interest of the students who spend their leisure in the school garden is not related to their age, girls are more interested in the environment, and this situation does not differ regardless of the grade level.

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