

Effects of Attitudes towards Book Reading on Secondary and University Students' Environmental Responsible Environmental Behaviors

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Abstract

The purpose of the research is to put forward the relationship between secondary school and university students' reading attitudes towards environmental issues and their responsible environmental behaviors. This research also examined the effect of political behaviors, physical behaviors, commercial and economic behaviors as well as the behaviors aimed at persuading individuals and the society, which are among the responsible environmental behaviors, on the reading attitudes. In the study, the data was collected by means of "Responsible Environmental Behavior Scale" developed by Erdoğan, Ok & Marcinkowski (2012) as well as "The Attitude Scale towards Reading Book about Environmental Issues" developed by Kahyaoğlu (2011). The model used for the research was relational survey model and the data obtained from this research was analyzed through arithmetic average, standard deviation, independent sample t-test, correlation and regression analysis. The research results revealed that there was not a meaningful difference between secondary school and university students' reading attitudes towards environmental issues, however there was a statistically meaningful difference between students' responsible environmental behaviors.

Keywords: Environmental Education, Environmental Behaviors, Reading

Introduction

As the most socialized species, human beings accomplish both individual and social behaviors in line with their ideas and opinions. For humans, behavior means realization of ideas and opinions. On the other hand, it would not be wrong to consider that behaviors of the society in which humans constitute the most fundamental elements are in parallel with the behaviors of the individuals that make up it. When this issue is dealt within the context of environmental attitudes and behaviors, it is expected that the individuals who are aware of the importance of the environment for human life and the future and thinking that the environment needs to be preserved show awareness on the environmental issues and display positive attitudes for the preservation of the environment both in their individual behaviors and their social relations that these individuals establish with the people around. In this respect, realization of the opinions and ideas of an individual regarding a matter means "intellectual pattern" in social psychology or in more general terms, "attitude". According to Smith (1968), attitude is a tendency which is attributed to the individual and which includes one's thoughts, feelings and behavior about a psychological object. According to Gardner (1985), attitude is the reaction to some referent or attitude object, inferred on the basis of the individual's beliefs or opinions. According to Ülgen (1994), attitude is a fact, being attained through learning, shaping the behaviors of the individual, and leading to biasness in times of decision-taking. According to Fidan (1996), attitude is the position changing between negative and positive towards a specific item, object, person or events. Attitude is the tendency to react (Tung et.al. 2002).

In general terms, attitude is defined as the tendency to display positive or negative learned reactions towards a certain object, situation institution, concept or other people (Alnıaçık & Yılmaz, 2008; Atasoy, 2005). Attitudes occur through a learning process as a result of the life and experiences (Tavşancıl, 2006).

It is stated that environmental attitudes refer to all positive or negative opinions such as fear, anger, uneasiness and value judgments stemming from the environmental problems as well as readiness to bring a solution to the environmental problems which is among environment-oriented behaviors (Erten, 2004). Therefore, with the aim of preserving the environment and preventing environmental problems, the individuals should be provided with the positive attitudes and behaviors which manifest themselves in both political and economic aspects and for persuasion of the society. In this context, providing individuals with environmental attitudes is one of the prioritized objectives of the educational system, teachers and families. Uzun & Sağlam (2006) stated that students must be provided with the necessary knowledge and positive attitudes towards the environment, otherwise they would have negative environmental attitudes, they would remain insensitive to the environment and even, they would create problems for the environment. Attitudes are one of the most important factors that direct our behaviors. Therefore, attitudes are of critical importance in enabling that the individuals display responsible environmental behaviors. In addition, another factor that enables us to respect for different opinions and ideas and influences our critical and creative thinking skills and behaviors is our reading habits or reading attitudes.

Without any doubt, reading is one of the most effective methods to provide the desired way of behavior during the education and training process, which enables to inform, improve and at the same time, to entertain the individuals. Odabaş, Odabaş & Coşkun (2008) stated that reading habit is a life standard gained in childhood and developed during the education life. Yalçın (2006) stated that the reading habit occurs in children and is promoted lifelong when the act of reading is maintained in a planned and consistent manner until the age of 15. In a study, Şirin & Soylu (2003) indicated the persons reading 1-5 books as reading rarely, the persons reading 6-20 books as reading moderately, and the persons reading 21 or more books as reading a lot when the number of books that the persons read in a year is taken into account. Gömleksiz (2004) stated that lack of guidance is the reason why students cannot acquire reading habits. Attitudes towards reading books related to environments are also important to comprehend the relation between natural and social systems, to understand the unity of human and nature relationship, to be aware the effects of technological developments on environment and to know information related to environment is a life-long learning process. There are many studies about environmental education in international literature (Lobser, Swanepoel & Chacko, 2001; Swanepoel, Loubser & Chacko, 2002; Erdoğan, Kostova & Marcinkowski 2009; Kışoğlu et.al., 2010; Teksöz, Şahin & Ertepinar, 2010; Raselimo & Wilmot, 2013). However, there is no study reviewing secondary school and university students' book reading attitudes towards environmental issues and their effect on the responsible environmental behaviors.

The Purpose of the Study

The aim of this study is to put forward the relationship between secondary school and university students' reading attitudes towards environmental issues and their responsible environmental behaviors. For this purpose, the following questions were addressed in the study:

1. What is the degree of secondary school and university students' reading habits towards environmental issues and their responsible environmental behaviors?
2. Is there any relationship between secondary school and university students' reading habits towards environmental issues and their environmental political behaviors, commercial and economic behaviors, physical behaviors, and behaviors aimed at persuading individuals and the society?
3. Do the environmental political behaviors, commercial and economic behaviors, physical behaviors and behaviors aimed at persuading individuals and the society have any influence in explaining secondary school and university students' reading habits towards environmental issues?

Method

The research was conducted according to the relational survey method.

Population and Sampling

The population of the study consisted of the secondary school students in Siirt city center and the university students at the Department of Elementary Education of the Faculty of Education in Siirt University in Turkey. The sampling of the study, which was based on random sampling, consisted of 658 students in total, 398 of who are the secondary school students in Siirt city and 260 of who are the students at the Department of Elementary Education of the Faculty of Education in Siirt University in Turkey.

Data Collection Tools

In the study, the attitude scale towards reading book about environmental issues developed by Kahyaoğlu (2011) was used to determine secondary school and university students' reading attitudes towards environmental issues, and the responsible environmental behavior scale developed by Erdoğan, Ok & Marcinkowski (2012) was used to determine students' responsible environmental behaviors

The Attitude towards Reading Book about Environmental Issues Scale: This scale consists of three dimensions and 20 items: The importance of reading about environmental issues and its dissemination (13 items), the benefits of reading about environmental issues (3 items) and the degree of interest towards reading about environmental issues (4 items). The evaluation was based on the measurement of a five point Likert scale answered as I don't agree at all (1), I don't agree (2), I am undecided (3), I agree (4) and I absolutely agree (5). In this study, Cronbach's alpha reliability coefficient of the whole scale was found as .85. In the study carried out by Kahyaoğlu (2011), Cronbach's alpha reliability coefficient of the scale was found as .87.

The Responsible Environmental Behavior Scale: This scale consists of 23 items and four dimensions, namely political behaviors, physical behaviors, commercial and economic behaviors and behaviors aimed at persuading individuals and the society. Political behaviors refer to the behaviors aiming at negotiation with the government or the officials in order to resolve or prevent environmental issues individually. Physical behaviors refer to the physical behaviors aiming at preservation of the natural world for environmental problems or issues. Commercial and economic behaviors refer to the behaviors aiming at utilization of monetary or financial resources to resolve and prevent environmental problems. Behaviors aiming at persuading individuals and the society refer to the behaviors aiming at encouraging or persuading individuals or the society to resolve or prevent environmental problems. This scale was measured on the six point Likert type scale answered as Never (1), Once (2) Twice (3), Three Times (4), Four Times (5) and Five Times and More (6). Cronbach's alpha reliability coefficient of the whole scale was found as .82. Cronbach's alpha reliability coefficient was found as .85 for the political behaviors sub-dimension, as .71 for the physical behaviors sub-dimension, as .72 for commercial and economic behaviors sub-dimension and as .75 for behaviors aiming at persuading individuals and the society sub-dimension. In the study carried out by Erdoğan, Ok and Marcinkowski (2012), Cronbach's alpha reliability coefficient of the scale was found as .92 for political behaviors, as .70 for physical behaviors, as .70 for commercial and economic behaviors, and as .80 for behaviors aiming at persuading individuals and the society.

Analysis of the Data

SPSS 15 (The Statistical Packet for Social Sciences) program was used to analyze the data. Arithmetic average, standard deviation and independent sample t-test was used to determine secondary school and university students' reading attitudes towards environmental issues and their responsible environmental behaviors. Furthermore, correlation and regression analyses were used to determine the impact and the relationship between political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society, which are among students' responsible environmental behaviors, and reading attitudes towards environmental issues.

Results

The t-test results regarding secondary school and university students' reading attitudes towards environmental issues were given in table 1.

Table-1: The Results T-Test on Students' Reading Attitudes towards Environmental Issues and Responsible Environmental Behaviors According to Educational Background

			Educational background	N	X	SS	t-test
Reading attitude towards environmental issues		Secondary school		398	3.92	.580	-.153
		University		260	3.91	.684	
Responsible environmental behaviors		Secondary school		398	3,36	.841	4.894**
		University		260	3,04	.732	

**p<.01

When the table-1 was examined, it was found that there was not a meaningful difference between secondary school and university students' reading attitudes towards environmental issues ($t=-1.53$; $p>.05$), however there was a statistically meaningful difference between their responsible environmental behaviors ($t=4.894$; $p<.05$). In addition, the mean scores of secondary school and university students' reading attitudes towards environmental issues were found as $X=3.92$ and $X=3.91$, and the mean scores of their responsible environmental behaviors were found as $X=3.36$ and $X=3.04$. The findings on the frequency that the students follow the developments regarding environmental issues are given in table 2.

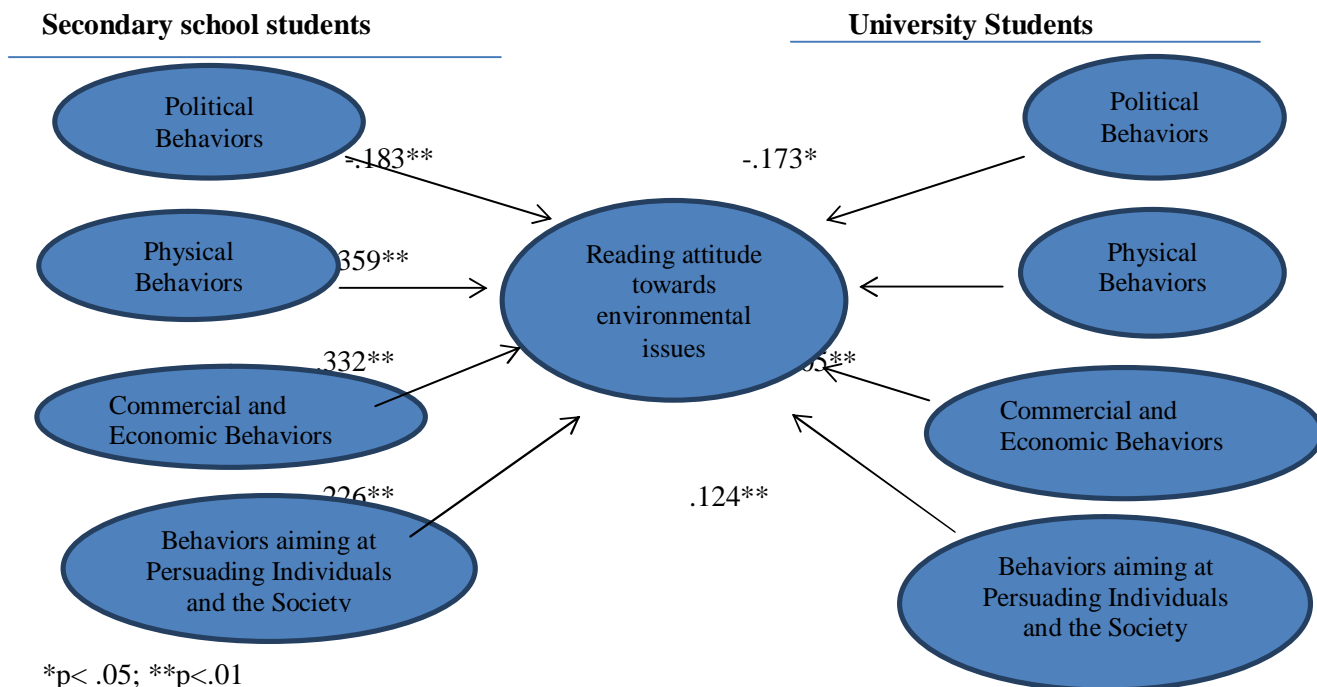
Table 2: The Results on the Frequency That the Students Follow the Developments Regarding Environmental Issues

Frequency of following environmental issues	Secondary school students		University students	
	f	%	f	%
Generally	53	13.4	41	15.9
Occasionally	147	37.0	96	37.2
Sometimes	86	21.6	59	22.9
Rarely	80	20.2	47	18.2
Never	31	7.8	15	5.8
Total	397	100	258	100

When the table-2 was examined, the frequency that secondary school students follow the development regarding environmental issues was reported as follows: 13.4% as generally, 37% as occasionally, 21.7% as sometimes, 20.2% as rarely and 7.8% as never. The frequency that university students follow the developments regarding environmental was reported as follows: 15.9% as generally, 37.2% as occasionally, 22.9% as sometimes, 18.2% as rarely and 5.8% as never. The findings on the relationship between secondary school and university students' reading attitudes towards environmental issues and their responsible environmental behaviors are given in figure-1.

When the correlation analysis results of the secondary school students were examined, it was found that there was a statistically negative meaningful relationship between students' reading attitudes towards environmental issues and political behaviors, which are among the responsible environmental behaviors, ($r=-.183$; $p<.05$). However, there was a positive meaningful relationship between secondary school students' reading attitudes towards environmental issues and physical behaviors, which are among the responsible environmental behaviors, ($r=.359$; $p<.01$), and commercial and economic behaviors ($r=.332$; $p<.01$) and behaviors aiming at persuading individuals and the society ($r=.226$; $p<.01$).

Figure 1: Results of the Correlation Analysis between Students’ Reading Attitudes towards Environmental Issues and Their Responsible Environmental Behaviors



*p< .05; **p<.01

When the relationship between university students' reading attitudes towards environmental issues and their responsible environmental behaviors, it was found that there was a negative meaningful relationship between political behaviors ($r=-.173$; $p<.05$). Nevertheless, it was found that there was a positive meaningful relationship between physical behaviors ($r=.212$; $p<.05$), commercial and economic relations ($r=.305$; $p<.01$), and behaviors aiming at persuading individuals and the society ($r=.124$; $p<.01$). In order to determine whether political behaviors, physical behaviors, commercial and economic behaviors, and behaviors aiming at persuading individuals and the society which are among the responsible environmental behaviors, have any influence in secondary school students’ reading attitudes towards environmental issues, the regression analysis results are given in table 3.

Table 3 Results of the Regression Analysis Regarding the Effect of Secondary School Students’ Responsible Environmental Behaviors on Their Reading Attitudes towards Environmental Issues

	Variables	β	R	R^2	Standardized β	t	F
Reading attitudes towards environment issues	Political behaviors	4.119	.183	.034	-.183	69.527*	13.754*
	Physical behaviors	3.273	.359	.129	.359	36.552*	58.600*
	Commercial and economic behaviors	3.372	.332	.110	.332	40,275*	49.167*
	Behaviors aiming at persuading individuals and the society	3.634	.226	.051	.226	52.369*	21.399*

*p<.01

When the effect of secondary school students’ political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society on their reading attitudes towards environmental issues was analyzed, it was found that the variance analysis results ($F_{(Political\ beh)}=13.754$, $F_{(Physical\ beh)}=58.600$, $F_{(Commercial\ and\ eco\ beh)}=49.167$, $F_{(Beh\ aiming\ at\ pers.\ ind\ and\ soc)}=21.399$) were meaningful.

In this sense, it can be stated that secondary school students' political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society meaningfully affect their reading attitudes towards environmental issues. In addition, it was found that, of the reading attitudes towards environmental issues, 3% explain political behaviors, 12.9% physical behaviors, 11% commercial and economic behaviors, 5.1% behaviors aiming at persuading individuals and the society. The results of the regression analysis regarding the effect of university students' political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society on their reading attitudes towards environmental issues are given in table 4.

Table 4 Results of the Regression Analysis Regarding the Effect of University Students' Responsible Environmental Behaviors on Their Reading Attitudes towards Environmental Issues

	Variables	β	R	R ²	Standardized β	t	F
Reading attitudes towards environment issues	Political behaviors	4.146	.173	.030	-.173	45.57*	7.925**
	Physical behaviors	3.390	.212	.045	.212	21.596*	12.070**
	Commercial and economic behaviors	3.171	.305	.093	.305	20.997*	26.406**
	Behaviors aiming at persuading individuals and the society	3.706	.124	.015	.124	32.491*	4.055*

**p<.01; *p<.05

As can be seen in Table-4, when the effect of secondary school students' responsible environmental behaviors on their reading attitudes towards environmental issues was examined, it was found that the variance analysis results ($F_{(\text{political beh})}=7.925$, $F_{(\text{Physical beh})}=12.070$, $F_{(\text{Commercial and eco beh})}=26.4067$, $F_{(\text{Beh aiming at pers. and soc})}=4.055$) were meaningful. In this sense, it can be stated that university students' political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society meaningfully affect their reading attitudes towards environmental issues. In addition, it was found that, of the reading attitudes towards environmental issues, 3% explain political behaviors, 4.5% physical behaviors, 9.3% commercial and economic behaviors, 1.5% behaviors aiming at persuading individuals and the society.

Conclusion and Implications

It is of critical importance that human beings who have become alienated from nature manifest reading attitudes towards environmental issues and responsible environmental behaviors in order to develop responsible environmental behaviors and raise awareness on the environment or in brief, to increase environmental literacy level. In the study, it was found that secondary school and university students displayed high level of book reading attitudes towards environmental issues. On the other hand, it was determined that there was not a meaningful difference between secondary school and university students' reading attitudes towards environmental issues. In a study, Kurulgan and Çekerol (2008) indicated that university students displayed high levels of reading attitudes. Batur, Gülveren and Bek (2010) and Kuzu (2013) stated that candidate teachers displayed positive reading attitudes. Arslantürk and Saracaloğlu (2010) indicated that class teachers and candidate class teachers displayed medium level of reading habits. Pehlivan, Serin and Serin (2010) stated candidate teachers in Turkish Republic of Northern Cyprus displayed medium levels of reading interests and habits. On the other hand, Odabaş, Odabaş and Polat (2008) indicated that they developed reading abilities during university but failed to acquire reading habit regularly and adequately. Yılmaz (2006) stated that reading habits of candidate class teachers did not develop adequately. In a study that focused on adolescents, Can, Türkyılmaz and Karadeniz (2010) indicated that the reading rate was low among students.

Susar Kırmızı, (2012) indicated that the book reading, which is an indispensable instrument of learning and the learning process, is a criterion of the development level of the society, and therefore one of the basic objectives of education is to provide children and young people with the habit of book reading

Poortinga, Steg and Vlek (2004) stated that environmental behaviors are influenced by not also knowledge of the individuals but also their interests and attitudes. Positive reading attitudes towards environmental issues are important for students to deal with environmental problems, collect information regarding the issue, develop the ability to discuss, interpret based on hypothesis or evidence, diverge from one single truth and develop ideas and opinions in which paradigms are questioned. On the other hand, in their study titled "Developing Children's Environmental Literacy through Literature: An Analysis of 100 Basic Literary Works, Erdoğan, Coşkun and Uşak (2011) stated that the concepts like curiosity and awareness on the environment were not mentioned in the books recommended to students. Book reading are very important in terms of developing human personality, shaping relations and enriching lives. In this respect, it can be stated that high levels of secondary school and university students' reading attitudes towards environmental issues play an important role in shaping the relations between nature and people, enabling that people understand their place in nature, protecting the nature and sustaining an environmentally-sensitive way of life. People thought behaviors and habits are making up the fundamentals environmental problems. The failures of the studies related to healthy environmental sustainability are based on overmuch caring about development of economic sources and politic factors.

The 56th article of the Turkish Constitution states that "Everyone has a right to live in a healthy and balanced environment. It shall be the duty of the State and the citizens to improve and preserve the environment and to prevent environmental pollution". In this respect, all individuals are responsible of preserving the environment. The individuals displaying responsible environmental behaviors are those who are able to boycott the environmentally-harmful products in a commercial and economic manner, pay attention to the preservation of the environment in their political preferences, display attitudes aiming at persuading individuals and the society in protection of the environment and show awareness towards environmental issues and environmental health. In the study, it was revealed that secondary school students displayed higher levels of responsible environmental behaviors when compared to university students and this difference was statistically meaningful. In a study on university students, Alnaçık (2010) stated that the tendency of students to deal with environmental issues and display environmentally-friendly behaviors was above the average. Atlı and Uzun (2009) indicated that secondary school students' interests and behaviors towards environmental issues were at medium level. Yücel Işıldar and Yıldırım (2008) expressed that the students studying in the environmental health program showed sensitivity in displaying environmental behaviors. In the study, half of the secondary school and university students stated that they followed the developments regarding environment occasionally and generally. In this respect, it can be stated that secondary school and university students are sensitive towards environmental issues.

In the study, it was found that there was a negative meaningful relationship between secondary school and university students' reading attitudes towards environmental issues and political behaviors towards protection of the environment however there was a positive meaningful relationship between physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society. Accordingly, it can be stated that as the level of secondary school and university students' political behaviors increases, their book reading attitudes towards environmental issues decrease or as the students' political behaviors decrease, their reading attitudes towards environmental issues increase, On the other hand, it can be stated that as secondary school and university students' reading attitudes towards environmental issues increase or decrease, this level can be increased or decreased by physical behaviors like throwing garbage on the right places in schools, houses, during picnic or on streets and protecting plants and animals, commercial and economic behaviors like buying recyclable environmentally-friendly products and giving old and obsolete books, clothes, toys and other stuff to the persons or places in need, and behaviors aimed at persuading individuals and the society like speaking to other people to protect the environment and not to harm the environment. In this respect, reading towards environmental issues is important in terms of not only facilitating the understanding of people regarding the reasons and consequences of environmental problems and enabling them to comprehend the economic damages of such problems. In the study, it was revealed that secondary school and university students' reading attitudes towards environmental issues are influenced by their political behaviors, physical behaviors, commercial and economic behaviors and behaviors aiming at persuading individuals and the society.

When the result of the study is evaluated in general terms, it can be seen that there is a meaningful relationship between secondary school and university students' reading attitudes and their responsible environmental behaviors. According to the results obtained from the study, the following can be suggested:

- 1- The issue may be analyzed in terms of socio-cultural and economic variables such as gender, age, social economic status and education level which affect reading attitudes towards environmental issues and responsible environmental behaviors.
- 2- The findings obtained from the research may be used in a more comprehensive sampling and their consistency may be evaluated.
- 3- Within the scope of environmental education, the role played by the reading attitudes towards environmental issues as well as political behaviors, commercial and economic behaviors, physical behaviors and responsible behaviors aiming at persuading individuals and the society for protection of the environment in the education program may be dealt and analyzed.

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