

*Full Length Research Paper*

# **Analysis on the environmental ethics awareness of outdoor recreation leaders**

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**The most preliminary factor of an outdoor recreation is nature. In a state where natural resources are depleted, it is not viable to mention an outdoor recreation; hence during recreation activities it is of utmost importance to conserve and attentively consume natural resources. The aim of this study is to analyze the environmental-ethics awareness levels of recreation leaders who play a salient role in outdoor recreation. Participants of the study were 31 individuals employed as recreation leaders in different regions of Turkey. In the research, a personal information form with seven questions and the “Environmental-ethics Awareness Inventory” was used. For analyzing the data SPSS program and qualitative interview technique which is a data collection method was used. As findings of the research are examined it can be suggested that outdoor recreation leaders possess a high level of environmental-ethics awareness in general and those who received a leadership training are more informed on the aim of environmental ethics compared to the participants not having received a leadership training.**

**Key words:** Outdoor recreation, outdoor leader, outdoor ethics.

## **INTRODUCTION**

Having saved its vital importance during all stages of humanity, the nature still preserves its critical significance both for personal and societal advancement. Being in close contact with all the elements in nature is an intrinsic and permanent human instinct. A vast number of researchers claim that human beings have an innate affection towards any given natural stimulants, some of which are animals, plants, vegetation, water, animals' sounds and actions or seasonal changes (Yılmaz and Olgan, 2017).

It goes without saying that the very first place humans seek to get rid of all the negative effects of urban life is natural environment. Here comes the question; to what

extent is it possible to access natural environments in the ever-concreting cities of our age?

In parallel with the rapid rise in human population there has been a corresponding decrease in natural habitats just to establish new human settlements. Currently more than half of global population reside in cities and it is projected that the percentage will climb to 70% by year 2050 (World Urbanization Prospects, 2007).

World Health Organization (WHO) stipulates that every city must possess minimum 9.5 m<sup>2</sup> of green space per person (Anguluri and Narayanan, 2017). The truth is this criteria is merely 6.4 m<sup>2</sup> for city of Istanbul city although its population exceeds 14 millions. Furthermore it is 3 m<sup>2</sup>

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in Tokyo and merely 1.9 m<sup>2</sup> in Buenos Aires. As can be grasped from such data too, green spaces are decreasing further every single day and this condition forces the humankind to be imprisoned behind concrete structures. Yet, in reality, nature is critically important not only for humans alone but also for all the components of life.

The reason accounting for the rapidly polluting of the environment, exterminating plant and animal lives irresponsibly, treatment of humans to all other existences as if they were mere commodities is that humans have never believed that these sources could eventually be depleted. A false conviction on the never-ending character of the nature, thanks to its rejuvenation capacity, urged the humans to damage the nature without any hesitation (Bülbul, 2013). However nature should meticulously be protected to ensure the continuity of all living entities.

Humankind has in all ages coexisted in harmony with the nature until the outbreak of urbanization process. Yet, in the aftermath of this process, the equilibrium constantly got spoilt against the favor of natural ecosystem; thereby the sources have lost their self-renewability character. Anthropogenic pressures imposed on the environment currently create huge and almost irreparable wounds on the value of natural and cultural assets (Akten and Akten, 2011). The foundational motto of environmental ethics is humans "living in harmony with the nature" by paying regard to the "nature". Environmental ethics can be described as a theoretical discipline in all environmental actions, decisions and all the future practices to adopt (Mahmutoğlu, 2010). As stated by Albert Schweitzer, "Ethics is nothing other than a reverence for life".

The aim of environmental ethics is to remind humans of their responsibilities, to notify the necessity of limiting the wills and skills of mankind to usurp nature and force it to serve in the interests of men alone and it also aims to grant a right of impunity to the nature. Environmental ethics is, above all else, linked to developing a more personalized management approach among all members of the community in regards to using the environment. Environmental ethics aims to eternally sustain the current or better life standards without rendering any harm to any of the living beings on earth. The most preliminary factor of an outdoor recreation is nature. In a state where natural resources are depleted, it is not viable to mention an outdoor recreation; hence during recreation activities it is of utmost importance to conserve and attentively consume natural resources.

In outdoor recreations, ethics is based on the faith in taking action for the aim of preventing any potential man-made damages on nature, adopting any principle on making a decision and taking action as one's lifestyle principle. Within that context conscientious consumption of natural resources and existence of the entire ecosystem are the most essential factors for the sustainability of outdoor recreation. In the research of

Lawson et al. (2006) it was revealed that unlike long-term campers short term (daily) visitors of natural spaces acted more responsibly towards the nature and nature markers. In the same vein studies conducted by Farrell et al. (2001) on camping presented that as a consequence of camping activities vegetation cover was harassed and pollution thus emerged. As evidenced by these examples too, it is a fact that some of the activities could potentially damage the nature despite all environmentally-friendly actions.

Ensuring sustainability in outdoor recreation is doubtlessly a matter of "ethics". It should always be kept in mind that most of the environmental problems stem from unethical behaviors of humans in their relationship with the nature. Arising awareness of outdoor recreation leaders as regards nature and inoculating this awareness in the visitors are substantially critical for an effective usage of resources.

Accordingly the aim of this study is to analyze the environmental-ethics awareness levels of recreation leaders who play a salient role in outdoor recreation. For this purpose, the answers to the following questions will be sought;

- (1) Does the duration of participation in outdoor recreation activities have an impact on the attitude of environmental ethics?
- (2) Does it have an impact on the ethical understanding of leadership training?
- (3) Are recreation participants sensitive to protecting the environment?

## MATERIALS AND METHODS

In the first part of the research a personal information form with seven questions and having 0.95 Cronbach's alpha coefficient-the "Environmental-ethics Awareness Inventory" developed by Özer (2015) was used. In this study, on the other hand, Cronbach's alpha coefficient for the inventory in general was computed as 0.93; Cronbach's alpha coefficients of its subdimensions were respectively measured as 0.90 – 0.89 – 0.83 – 0.89, definition of environmental ethics encompasses four sub-dimensions namely; aim of environmental ethics, reasons for the rise of environmental ethics and measurements to secure environmental ethics. In the second part of the study below-given questions were directed to participating recreation leaders to collect their responses;

- (i) Do you believe people who participate in outdoor recreation activities are conscientious to protect the environment?
- (ii) As a recreation leader, which aspects in particular do you consider in order to be a good role model in saving the nature?

## Participants

Participants of the study are 31 individuals employed as recreation leaders in different regions of Turkey. Participants were selected by judicial sampling method among the outdoor recreation leaders who actively engaged in recreation. Research data were collected between April and October 2018. Surveys were face-to-face asked

**Table 1.** Distribution of participants with respect to demographic features.

Demographic variable	Group	N	%
Gender	Female	11	35.5
	Male	20	64.5
Age (37.13±8.83)	Age 30 and below	9	29.0
	Age 31-40	11	35.5
	Age 41 and above	11	35.5
Length of participation	1-15 h	17	54.8
	16-25 h	14	45.2
Term of employment	1-7 years	18	58.1
	8-15 years	13	41.9
Region of employment	Aegean	9	29.0
	Mediterranean	12	38.7
	Other	10	32.3
Education level	High School	7	22.6
	University	24	77.4
Leadership training	Yes	12	38.7
	No	19	61.3

to accessible participants and answers to the questions were recorded on a tape recorder. Other participants who could not be met face-to-face were notified by an e-mail and were asked to answer both the survey and other questions in written form.

#### Data analysis

Data were analyzed via implementing Statistical Package Program for Social Science (SPSS) 21.0 program. Demographic information of the participants was presented as frequency and percentage table. Skewness coefficient was utilized in the test of normality of inventory scores. The fact that skewness coefficient which is used in the normal distribution feature of scores obtained from a constant variable stayed in  $\pm 1$  limit can be interpreted such; scores did not manifest a huge diversion from the normal distribution (Büyüköztürk, 2011: 40). Since conducted test of normality revealed that inventory and sub-dimension scores performed a normal distribution in the comparison of scores with respect to gender, length of participation, term of employment, region of employment, educational level and having received leadership training independent two-sampling t test; in their comparison with respect to age groups and regions ANOVA test were employed. When a significant difference was detected in ANOVA test, LSD post hoc test was harnessed in order to detect between which groups the difference existed. In the analyses, confidence interval was computed as 95% (significance level 0.05  $p < 0.05$ ).

In the second part of the study qualitative interview technique which is a data collection method was used. Its key technique is verbal communication, so during the process dialogues were recorded on the tape. Participants' names were changed while recorded information was exchanged.

## FINDINGS

### Descriptive findings

In Table 1, frequency and percentage distribution of participants with respect to demographic features is exhibited. 31 samplings (35.5% of the research) are female, 64.5% are male. Mean age of participants is computed as 37.13±8.83 and 29% of them are at age 30 and below, 35.5% are between age group of 31-40 and 35.5% are age 41 and above. 54.8% of participants attended for 15 h and below, 45.2% of them attended for 16 h and longer period. 58.1% of participants have been employed for 1-7 years and 41.9% have been employed for 8-15 years. 29% of participants have worked in the Aegean Region, 38.7% have worked in the Mediterranean Region and 32.3% have worked in other regions. 22.6% of participants are high school and 77.4% are university graduates. 38.7% of participants have received a leadership training (Table 1).

In Table 2 descriptive statistics of the mean value, standard deviation and skewness data about the inventory and its sub-dimensions have been listed. It is claimed that definition of environmental ethics (4.47±0.41), aim of environmental ethics (4.65±0.44), reasons for the rise of environmental ethics (4.63±0.44), measurements to secure environmental ethics (4.50±0.37) and inventory total score (4.54±0.34) are;

**Table 2.** Descriptive statistics of inventory and its sub-dimensions.

Sub-dimension	N	Min.	Max.	$\bar{X}$	Sd	Skewness
Definition of environmental ethics	31	3.86	5.00	4.47	0.41	-0.18
Aim of environmental ethics	31	4.00	5.00	4.65	0.44	-0.72
Reasons for the rise of environmental ethics	31	3.60	5.00	4.63	0.44	-0.97
Measurements to secure environmental ethics	31	3.63	5.00	4.50	0.37	-0.74
Total	31	3.91	5.00	4.54	0.34	-0.60

**Table 3.** t Test results on the comparison of inventory and its sub-dimension scores with respect to gender.

Sub-dimension	Gender	n	$\bar{X}$	Sd	T	P
Definition of environmental ethics	Female	11	4.40	0.41	-0.72	0.479
	Male	20	4.51	0.42		
Aim of environmental ethics	Female	11	4.58	0.47	-0.65	0.522
	Male	20	4.68	0.43		
Reasons for the rise of environmental ethics	Female	11	4.51	0.49	-1.11	0.278
	Male	20	4.69	0.40		
Measurements to secure environmental ethics	Female	11	4.55	0.40	0.54	0.592
	Male	20	4.47	0.36		
Total	Female	11	4.50	0.39	-0.47	0.644
	Male	20	4.56	0.32		

in a “very-high level” (5-1=4/5=0.80; 1.00-1.80: very-low 1.81-2.60: low; 2.61-3.40: average; 3.41-4.20: high; 4.21-5.00: very-high) (Table 2).

### Findings on the comparison of inventory and Sub-dimension scores with respect to demographic features

In Table 3 results of the independent two-sampling t test about the comparison of inventory and its sub-dimension scores with respect to participants' gender are exhibited. It has been manifested that inventory and its sub-dimension scores had no significant difference with respect to gender ( $p>0.05$ ) (Table 3).

In Table 4 results on one-way variance analysis (ANOVA) of the comparison between inventory and its sub-dimension scores with respect to age groups have been displayed. It has been exhibited that inventory and its sub-dimension scores had no significant difference ( $p>0.05$ ) with respect to age groups (Table 4). In Table 5 results of the independent two-sampling t test on the comparison between inventory and its sub-dimension scores with respect to the length of participation have been displayed. It has been detected that scores of the

definition of environmental ethics and aim of environmental ethics sub-dimensions had no significant difference ( $p>0.05$ ) with respect to the length of participation (Table 5).

It has been validated that reasons for the rise of environmental ethics ( $t=-2.33$ ;  $p<0.05$ ), measurements to secure environmental ethics ( $t=-3.66$ ;  $p<0.05$ ) and inventory total ( $t=-2.55$ ;  $p<0.05$ ) scores had no significant difference with respect to the length of participation. Participants whose length of participation is 16-25 h could get significantly higher scores from reasons for the rise of environmental ethics, measurements to secure environmental ethics and inventory total scores compared to those with 1-15 h of participation length (Table 5).

In Table 6 results of the independent two-sampling t test on the comparison of inventory and its sub-dimension scores with respect to participants' term of employment are tabulated. It has been detected that inventory and its sub-dimension scores had no significant difference ( $p>0.05$ ) with respect to the term of employment (Table 6). In Table 7 results on the one-way variance analysis (ANOVA) of the comparison of inventory and its sub-dimension scores with respect to participants' region of employment are listed. It has

**Table 4.** ANOVA test results on the comparison of inventory and its sub-dimension scores with respect to age groups.

Sub-dimension	Age (years)	N	$\bar{X}$	Sd	F	P	Significant difference
Definition of environmental ethics	30 and below	9	4.40	0.44	1.35	0.274	
	31-40	11	4.38	0.43			
	41 and above	11	4.64	0.35			
Aim of environmental ethics	30 and below	9	4.48	0.47	0.89	0.422	
	31-40	11	4.73	0.39			
	41 and above	11	4.70	0.46			
Reasons for the rise of environmental ethics	30 and below	9	4.47	0.51	1.34	0.277	
	31-40	11	4.60	0.49			
	41 and above	11	4.78	0.28			
Measurements to secure environmental ethics	30 and below	9	4.39	0.44	0.53	0.595	
	31-40	11	4.52	0.33			
	41 and above	11	4.56	0.37			
Total	30 and below	9	4.42	0.42	1.13	0.337	
	31-40	11	4.52	0.34			
	41 and above	11	4.65	0.27			

**Table 5.** The t test on comparison of inventory and its sub-dimension scores with respect to the length of participation.

Sub-dimension	Length of participation (h)	n	$\bar{X}$	Sd	t	p
Definition of environmental ethics	1-15	17	4.41	0.44	-0.94	0.357
	16-25	14	4.55	0.38		
Aim of environmental ethics	1-15	17	4.55	0.49	-1.37	0.183
	16-25	14	4.76	0.36		
Reasons for the rise of environmental ethics	1-15	17	4.47	0.51	-2.33	<b>0.027</b>
	16-25	14	4.81	0.21		
Measurements to secure environmental ethics	1-15	17	4.31	0.38	-3.66	<b>0.001</b>
	16-25	14	4.72	0.20		
Total	1-15	17	4.41	0.38	-2.55	<b>0.016</b>
	16-25	14	4.70	0.21		

been displayed that definition of Environmental ethics, aim of Environmental ethics, reasons for the rise of environmental ethics sub-dimension scores and inventory total scores had no significant difference ( $p > 0.05$ ) with respect to participants' region of employment (Table 7). It emerged that scores of the measurements to secure environmental ethics sub-dimension had no significant difference with respect to participants' region of

employment ( $F = 3.43$ ;  $p < 0.05$ ). According to results of LSD post hoc test conducted to spot between which groups this difference existed, scores of the measurements to secure environmental ethics sub-dimension of the participants working in Aegean and other regions are significantly higher than the scores of participants employed in the Mediterranean Region (Table 7).

**Table 6.** The t test on the comparison of inventory and its sub-dimension scores with respect to the term of employment.

Sub-dimension	Term of employment (years)	n	$\bar{X}$	Sd	t	P
Definition of environmental ethics	1-7	18	4.50	0.43	0.40	0.694
	8-15	13	4.44	0.39		
Aim of environmental ethics	1-7	18	4.57	0.44	-1.06	0.296
	8-15	13	4.74	0.43		
Reasons for the rise of environmental ethics	1-7	18	4.61	0.47	-0.22	0.830
	8-15	13	4.65	0.40		
Measurements to secure environmental ethics	1-7	18	4.47	0.38	-0.41	0.684
	8-15	13	4.53	0.38		
Total	1-7	18	4.52	0.37	-0.25	0.808
	8-15	13	4.56	0.31		

**Table 7.** Results of ANOVA test on the comparison of inventory and its sub-dimension scores with respect to participants' region of employment.

Sub-dimension	Region	N	$\bar{X}$	Sd	F	P	Significant difference
Definition of environmental ethics	A-Aegean	9	4.54	0.43	0.22	0.801	
	B-Mediterranean	12	4.42	0.44			
	C-Other	10	4.49	0.39			
Aim of environmental ethics	A-Aegean	9	4.67	0.41	1.99	0.156	
	B-Mediterranean	12	4.47	0.50			
	C-Other	10	4.83	0.32			
Reasons for the rise of environmental ethics	A-Aegean	9	4.78	0.35	1.74	0.194	
	B-Mediterranean	12	4.45	0.49			
	C-Other	10	4.70	0.40			
Measurements to secure environmental ethics	A-Aegean	9	4.64	0.28	3.43	<b>0.047</b>	<b>A.C&gt;B</b>
	B-Mediterranean	12	4.29	0.35			
	C-Other	10	4.61	0.40			
Total	A-Aegean	9	4.64	0.31	2.01	0.152	
	B-Mediterranean	12	4.39	0.36			
	C-Other	10	4.62	0.30			

In Table 8, results of the independent two-sampling t test on the comparison of inventory and its sub-dimension scores with respect to participants' education level have been shared. It surfaced that inventory and its sub-dimension scores had no significant difference ( $p>0.05$ ) with respect to education level (Table 8). In Table 9 results of independent two-sampling t test on the comparison of inventory and its sub-dimension scores

with respect to having received leadership training are listed. It has been seen that definition of environmental ethics, reasons for the rise of environmental ethics, measurements to secure environmental ethics and inventory total scores had no significant difference ( $p>0.05$ ) with respect to having received a leadership training (Table 9). It has emerged that aim of environmental ethics sub-dimension scores had no

**Table 8.** t Test on the comparison of inventory and its sub-dimension scores with respect to education level.

Sub-dimension	Education level	n	$\bar{X}$	Sd	t	p
Definition of environmental ethics	High school	7	4.41	0.36	-0.48	0.635
	University	24	4.49	0.43		
Aim of environmental ethics	High school	7	4.57	0.42	-0.50	0.621
	University	24	4.67	0.45		
Reasons for the rise of environmental ethics	High school	7	4.54	0.40	-0.56	0.577
	University	24	4.65	0.45		
Measurements to secure environmental ethics	High school	7	4.38	0.44	-0.97	0.338
	University	24	4.53	0.35		
Total	High school	7	4.45	0.34	-0.79	0.437
	University	24	4.56	0.34		

**Table 9.** t Test on the comparison of inventory and its subdimension scores with respect to having received a leadership training.

Sub-dimension	Leadership training	n	$\bar{X}$	Sd	t	p
Definition of environmental ethics	Yes	12	4.61	0.34	1.45	0.157
	No	19	4.39	0.44		
Aim of environmental ethics	Yes	12	4.86	0.30	2.34	<b>0.027</b>
	No	19	4.51	0.46		
Reasons for the rise of environmental ethics	Yes	12	4.77	0.31	1.45	0.158
	No	19	4.54	0.49		
Measurements to secure environmental ethics	Yes	12	4.61	0.29	1.43	0.163
	No	19	4.42	0.41		
Total	Yes	12	4.68	0.26	1.90	0.068
	No	19	4.45	0.36		

significant difference with respect to having received a leadership training ( $t=2.34$ ;  $p<0.05$ ). On the aim of environmental ethics sub-dimension the scores of participants who have taken a leadership training are significantly higher than the scores of participants not having received a leadership training (Table 9).

In the second part of the research participants were asked to answer the question; "Do you believe people who participate in outdoor recreation activities are conscientious to protect the environment?" and below are some of their responses;

Ahmet, age 32, (Mediterranean Region): ...Visitors are mandated to pay a certain amount or fee to take part in organized activities. Since those fee-payers are mostly well-educated and have a high income level I believe

they have environmental consciousness.

Nazlı, age 29, (Blacksea Region): ... Whenever I organize a trip to the highland with a group, I see lots of people there having come with their own means. In general there is some sense of environmental consciousness but I guess its level is not yet satisfactory. ... it is true, visitors no longer throw their garbage all around but they still break tree branches just to set fire or they think it is normal just to pull off a flower they see and find beautiful and not pay any heed to its endemic nature. What I am trying to say is all they understand from saving the environment is simply not dropping litter on the ground...

Demir, age 38, (Aegean Region): ... in one of my tours, I still remember vividly the incident that took place; one of

the guests in my group accidentally dropped her paper cup on the grass. A man behind her brought back the cup and warned her to be more sensitive to keep the wilderness clean. Yet the whole incident seemed normal until the guy who warned her was a hunter carrying a rifle on his shoulder. ... I guess it all seemed perfectly normal to him to hunt the animals and still believe hunting caused no damage at all on the wilderness ...

Participants were also asked to answer the question; "As a recreation leader, which aspects in particular do you consider in order to be a good role model in saving the nature?" and below are some of their responses;

Ali, age 47, (Mediterranean Region): During the activity in particular I try to share my insights with the participants but I try not to sound like preaching; rather I aim to share my experiences. I simply remind that nature should be treated as a whole unity. I also use the social media to raise awareness by sharing posts on the nature and protecting the wilderness.

Ziya, 33, (Aegean Region): Environmental consciousness starts in the family. First of all I spend long hours with them in the nature to be a good role model for my children ... I try to teach them that everything in nature is connected and when one thing is harmed there is a chain reaction in all the rest of species. In my tours I spend at least 10 min to share my insights on revering the nature.

Hatice, 35, (Aegean Region): ... I do my best to live as one part of the nature by purchasing fewer plastics, fewer quantities of goods, recycling, respecting to the land and all the blessings it offers. ... to sum up I try not to be a role model but rather live like a true environmentalist.

Faik, age 29, (Blacksea Region): ... I strongly believe in the power of social media on saving the environment. Soon my social media account I post notes on environmental protection, recycling and sustainability issues to communicate my personal insights.

## DISCUSSION

As findings of the research are examined it can be suggested that outdoor recreation leaders possess a high level of environmental-ethics awareness in general and those who received a leadership training are more informed on the aim of environmental ethics compared to the participants not having received a leadership training. In addition, it is possible to mention that recreation participants have a limited environmental consciousness. Based on these findings below, listed suggestions can be provided:

- (1) Environmental courses should be offered at schools starting from elementary education level. In order to form ideas on solving environmental problems and determine appropriate approaches on environmental ethics, these courses could play a critical role.
- (2) Children should be given more opportunities to spend

time outdoors. Schools should be designed in a more environmentally-friendly style.

(3) Local administrations should design green spaces nearby the settlements and make the nature a part of urban life.

(4) In recreation departments of universities, higher numbers of courses should be offered on environmental awareness and more informed recreation leaders should be trained.

(5) In mass- communication media, public spots should focus not only on sharing information to keep the nature clean but on promoting environmental awareness in general.

## Conclusion

Findings of our research unveiled that:

(1) As the length of participation increased it is detected that reasons for the rise of environmental ethics, measurements to secure environmental ethics and inventory total scores climbed in effect (Table 5).

This finding brings to mind that recreation leaders who could spend longer time in the wilderness had the opportunity to work with more numbers of visitors and conduct more situational analyses, thus they are likely to be more experienced on the nature. In relevant literature not a study that directly examined the relationship between length of participation and environmental ethics awareness could be detected. However, the analysis of Gençay and Karaküçük (2000) put forth that people who practiced nature sports are becoming more sensible towards environmental problems. In the study of Kement and Güçer (2015) it is concluded that ecological attitudes of campers are influential on their nature-friendly actions. It is also stated that recreational motivations are critical factors in performing the kind of behaviors that can save the nature.

(2) As the scores on measurements to secure environmental ethics sub-dimension that recreation leaders receive with respect to regions are analyzed, it is seen that leaders employed in the Aegean Region receive higher scores than the ones working in Mediterranean Region (Table 7). Özer (2015) in his study suggested that prospective teachers studying at Aegean-Region universities had significantly higher levels of environmental ethics awareness than prospective teachers studying at Middle-Eastern Anatolia. This finding is in parallel with the results of our research.

PISA (2015) report indicates the highest score in Turkey is measured in Western Marmara Region in terms of reading skills while the lowest success ratio belongs to Middle-Eastern Anatolia Region. As evidenced in this report there is an increase in education level as one moves from the east to the west. The rise in education level could be one factor in heightened level of reading and knowledge, hence an elevated sense of

environmental awareness in response. It is also suggested that geographical variations could also create a difference in terms of measurements to secure environmental ethics.

(3) It is identified that participants who received a leadership training had significantly higher levels of score in aim of environmental ethics sub-dimension than those who did not receive a leadership training (Table 9).

In his study Wong (2003) analyzed the ecological consciousness of university students. Obtained results manifested that youngsters had high levels of ecological awareness. In their study Korhonen and Lappalainen (2004) examined ecological awareness, knowledge and concerns worries of youngsters. Based on the findings the authors concluded that youngsters had high ecological awareness. Based on the result obtained from this study it can be argued that education is a vital role in environmental ethics.

Keleş et al. (2010) reported that children's education on nature should involve topics such as natural diversity, ecological cycle, chain of natural connection and data on coexisting species in the wilderness. Acquisition of a holistic attitude towards the nature is a salient factor in recognizing the position and importance of mankind in this systematic order.

Environmental education is valued as the most appropriate method in assisting the individuals in knowing their responsibilities and being a part of the solution against man-made environmental problems. Raising environmentally-conscious generations who know that natural resources are limited and who know from the very first years of their life that they are a part of biological order is the preliminary aim of all responsible citizens of modern age (DPT, 1997).

In the second part of the research participants were asked to answer the question; "Do you believe people who participate in outdoor recreation activities are conscientious to protect the environment?" and their responses indicated that:

- (i) Participants with a high income and education level developed higher environmental consciousness,
- (ii) There is some general awareness on the importance of saving the nature, but it is also made clear that there is not yet a fully established awareness on saving the nature.

Based on the responses collected from participating recreation leaders it can safely be claimed that recreation visitors in general have a limited environmental awareness. Although certain individuals avoid throwing litter on the ground for the aim of saving the nature it is quite a huge dilemma that they deem it perfectly normal to harm the animals or plants.

Wilkinson (2002) claims that as one's education level rises it is likely to expect to a rise in his/her environmental-ethics perception. Saka (2016) in his study reported that in its general context there is some

knowledge and definition on environmental ethics, yet there is a lack of progress in the implementation of knowledge and make proper and actionable decisions. A number of studies on environmental ethics manifest that despite the presence of sufficient level of positive perception and attitude on environmental protection in particular, there is still failure in obtaining positive results while turning this attitude into action (Liu et al., 2015; Rebolj and Dyes quot, 2013; Mifsud, 2011). An analysis of the participants' answers to the question; "As a recreation leader, which aspects in particular do you consider in order to be a good role model in saving the nature?" reveals below listed results:

- (i) To be a good role model through experience-sharing and performing right behaviors,
- (ii) By following the motto "Education starts in the family", offering a nature training to children from an early age,
- (iii) Trying not to be a good role model but rather be an ideal environmentalist
- (iv) Utilizing the social media as a tool in raising awareness.

We assume that today technology plays a direct role in distancing humans from the nature and accumulation of more environmental problems, but it is still viable to make technology serve the environmental ethics when certain restrictions are applied. It is feasible to access the most remote areas of the world which could almost be impossible to reach under normal circumstances. Knowing that social media usage is quite prevalent, it seems to be a logical choice to harness social media to the end of raising environmental awareness.

## CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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