

Full Length Research Paper

Determination of recreational demands of the staff and students on central campuses of Çanakkale Onsekiz Mart University

Füsün Erduran* and A. Esra Özel Cengiz Sebla Kabaş

Department of Landscape Architecture, Faculty of Agricultural, Çanakkale Onsekiz Mart University, 17020 Çanakkale-Turkey.

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In this study, on-site researches and questionnaires were conducted aiming to determine social, cultural and recreational tendencies of the staff and students of Çanakkale Onsekiz Mart University, their level of participation to current recreational activities and recreational demands. The results of the questionnaire conducted to the randomly selected 467 academic and administrative staff and students on-site and via internet were tabulated and interpreted by computing the descriptive statistics. The recreational demands of the staff and students, when considered culturally, include sports, art, entertainment and educational activities and facilities. The results found out in the research can provide data for determining the scope and qualifications of the recreational facilities to be planned on Çanakkale Onsekiz Mart University Campus and in Çanakkale province and preparing physical development plans.

Key words: Çanakkale, Çanakkale Onsekiz Mart University, recreation.

INTRODUCTION

According to Ozankaya (1980), the term recreation which in Turkish, means using leisure time derives from the word 'recreative' which means refreshing, recreating. Any relaxing and entertaining activity of individuals and social clusters voluntarily undertake in their leisure time is a recreational activity (Karaküçük, 1999).

Recreational activities are important in order to regenerate, protect or sustain of physique and mental health of human affected negatively from the routine life style or negative environmental effects. Recreation is the activity which is made voluntarily particular or in a group by choosing in the free and disconnected spare time entirely apart from the time for working and necessities, for the purpose of gaining pleasure and obtaining individual satisfaction (Karaküçük, 1999).

According to Butler (1968), the importance of recreation developing in parallel with industrialization can be clearly seen. The importance of recreation can be stated as

follows: It helps people become more involved in life and happy by meeting their recreational needs with recreational activities; at the same time, a person that is engaged in recreational activities spends quality leisure time and develops a health personality (Sertkaya, 2001). The governments in many modern countries have important functions related to the recreational activities (Godbey et al., 2005).

Although the term recreation is defined in several ways by different researchers and scientists, definitions usually centers on the contribution of recreation to human health. Broadhurst (2001) defined recreation as activities comprising multi-purpose, physical, emotional, social and cognitive components that people participate at their leisure. Broadhurst also emphasized that recreation is of great importance for the development of babies and children who learn life by playing games. İbrahim and Cordes (2002) defined recreational activities as nature-related leisure time activities that have been organized for the person's own self (Kara et al., 2008).

While people look for places where they can enjoy nature and environment today, they try to keep

*Corresponding author. E-mail: fusunerduran@comu.edu.tr.

themselves out of work life and daily problems. Although these places were not attractive before, they are now places people look for, and they have even started paying huge amounts of money for these facilities (Ceyhun, 2008).

According to Dawer and Pangraz (1975); education and recreation should not be considered separately. Recreation is a part of education and can be used as a means of educating people. This means is a key to productivity and forms a basis for the physical, social and psychological development of a person as well (Önder, 2003). When these characteristics are taken into consideration, carrying out recreational activities on university campuses is very important to the health and productivity of both the staff and students.

According to Matthews (1984); a comprehensive campus recreation program will be able to meet this need. Such programs provide opportunities to enable regular participation in the physical activities, to develop personal habits, to cope with the negative effects working life causes in the academic cadre and to eliminate the stress and tension of the staff and the students. In addition, campus recreation programs can provide active participation of the staff and students and therefore satisfaction, and help individuals find the desired balance between the work and leisure time (Önder, 2003).

According to Cardinal et al. (2002) in a study conducted with the university students in USA, it is seen that, in 63% of the universities, students are asked to pass some physical activity courses in order to graduate. It was determined that this system, in the general sense, changed the behaviors and habits of the students positively (Kiper, 2009). According to Sezgin (1987), if we think recreation as a definition consists of the phenomena of refreshing and renewing individuals' minds, invigorating their lives and revealing their desires together with the individuals' participation in the creative and cultural activities, it reveals the fact that recreation has different kinds of positive effects on people of all ages. In this context, while it provides opportunities for young generation to develop their abilities and identify themselves, it gives the adult generation an effective opportunity to relax and refresh and forms a peaceful social environment for the old generation (Kiper, 2009).

Today recreation is increasingly becoming more important. Recreation programs at universities have an essential role on university youth (Balci and Ilhan 2006). In this context, universities should not only enable them to get professional competences but also provide opportunities to help them get prepared for the future as dynamic, modern and social individuals. For this reason, university campuses are considered important to provide the students and staff with opportunities to spend their leisure time in quality recreational activities. University campuses should be designed in a way to make sports activities-one of the most important recreational activities- a life habit of the youth and to provide facilities for those who want to do sports professionally.

Sports as an indicator of the level of welfare and culture of modern societies are becoming more and more important in social and cultural life. While sports provides an important movement area for people in spending their leisure time, recreation plays important roles in introducing, popularizing sports in the society and attaining achievements in sports (Güngörmüş et al., 2006).

In order to offer a quality environment for the young generations who are getting prepared for the future, specific criteria should be determined for recreational activities in the planning stage of university campuses. These are (Kiper, 2009):

1. The locations where recreational activities will be carried out should be chosen with care. In the planning process there should be environment friendly, greener and nature-integrated areas and facilities that will meet the present and future needs.
2. Open-air areas with specific functions which campus settlement is required should be sufficient when types of the activity and people who will participate in the activity are considered.
3. The types of open-air areas for the use of outdoor spaces on university campuses should be designed in a way that they could be used scientifically, culturally, functionally and aesthetically.
4. Open-air areas on campus should be arranged according to the needs of certain age groups.
5. Different types of open-air areas on campus should show an organic structure for the entire landscape planning area.
6. Landscape planning of the open-air areas should be suitable for the natural conditions (climate, soil, topography etc.) of the region.

In conclusion, people need to work and they need to rest as well. The number of socio-cultural and sports activities can be increased for the academic staff at universities by decreasing work hours to the extent possible, and these activities can be announced more effectively. Thus, work performance of the academic staff can be increased and they can be supported to be mentally and physically healthier and to raise a healthy generation (Çolakoğlu, 2005). Likewise, the students also need several recreational activities to help them study more efficiently while continuing their intensive schooling courses. Today making such activities widespread is not a need but a must to raise physically and mentally healthy individuals.

MATERIALS AND METHODS

This study was conducted in Terzioğlu and Anafartalar Campuses of Çanakkale Onsekiz Mart University during the 2008 - 2009 Academic Year. A questionnaire was administered to the academic and administrative staff and undergraduate students on these campuses. During that academic year the total number of the academic and administrative staff and students on these campuses were as follows: Faculty of Fine Arts: 53 staff and 406 students; Faculty of Science: 199 staff and 3275 students; Faculty of Theology: 23 staff and 101 students; Faculty of Education: 177 staff

and 3800 students; Faculty of Engineering: 76 staff and 790 students; Faculty of Aqua Products: 61 staff and 380 students; Faculty of Agriculture: 101 staff and 604 students; Institute of Natural and Applied Sciences: 10 staff; Institute of Social Sciences: 13 staff, Units under Rectorate: 90 staff. Total number of the staff was 803 and total number of the students was 9356 (Anonymus-a, 2008).

A preliminary questionnaire was administered to a group which consist of 30 academicians in order to determine the accuracy of the questions, and the number and quality of the questions were determined. In this study, where the method of on-site questionnaire administration was used, sample size was determined according to the formula formed by Alptekin et al. (2001) and Kiper (2009). The formula is as follows:

$$N = Nz^2pq/Nd^2 + z^2pq$$

where n is sample size; z is confidence coefficient; p is the likelihood of the characteristic we would like to measure in mass (in this study it was taken as 0,6), q: 1-p (1-0.6), d= relative error (in the study it was 0.05 (% 5)), N: main mass size, $n = 10159 \times (1.96)^2 \times (0.6) \times (0.4) / 10156 \times (0.05)^2 + (1.96)^2 \times (0,6) \times (0.4)$

Although the sample area was obtained as 355 according to the formula, more people were interviewed and the study was conducted by randomly selected 467 staff and students from the community. The number of the departments and units were taken as a basis in the distribution of the people to whom the questionnaire was administered. More questionnaires were administered to the more crowded departments and units.

Research was conducted in two stages. In the first stage, the literature was investigated, the sample group was determined for the study, the method was determined and the questions for the questionnaire were prepared and then the questionnaire was administered to the sample group. The second stage included the application and evaluation of the questionnaires.

The questionnaire consists of 16 questions and it includes questions that help determine the demographic structures and socio-cultural characteristics of the respondents. More than one option can be chosen in the questionnaire, and the questions help the participants determine which recreational activities they prefer to have both on the university campus and in Çanakkale.

Great attention was paid during the preparation of the questions so as to make them purposeful, clear and understandable, and the participants were asked few questions as possible. The results were tabulated and interpreted statistically. Since the aim of the research was to determine a general tendency and demand, no detailed relation was derived among the values. The data was evaluated by using SPSS 15 for Windows program.

RESEARCH FINDINGS

Considering the two big campuses of Çanakkale Onsekiz Mart University that is situated in the city centre, the research conducted was directed at the recreational needs and demands of the people on these campuses.

Anafartalar Campus is located in the city centre of Çanakkale and it is easier to reach the recreational areas and activities in the urban areas. There is an indoor sports hall, an outdoor tennis court, two outdoor basketball and volleyball courts, two cafeterias, a restaurant and dining halls, and Süleyman Demirel Culture Centre for the use by all students and staff on campus site. The recreational areas on Terzioğlu Campus are: An indoor sports hall, a restaurant (Yamaç Cafe), a three-storey student social activity centre (ÖSEM), with an area of 9000 m², with student dining halls, staff dining halls, student groups and clubs meeting halls and

several department stores in it, "Troya Culture Centre", where scientific and social activities such as panels, symposiums, conferences, concerts, exhibitions are held, cafeterias for each of the faculties and the Rectorate, and an amphitheatre where outdoor concerts are given (Anonymus-b, 2008).

Furthermore, there are also recreational areas in the Dardanos facilities, which is located 15 km away from the city centre in the southwest of the city on an area of 370, 000 km² near the seaside and open to the university and people of Çanakkale. The facilities, often used for overnight accommodation and particularly at weekends, include lodgings, an indoor sports hall, an outdoor tennis court, an outdoor basketball-volleyball court, a picnic site, a motel with 36 rooms and a capacity of 138 beds in three blocks of buildings, Yali Restaurant with a capacity of 250 persons, three cafes, and a seminar hall with a capacity of 66 persons.

In this study, physical planning suggestions for recreational areas will be presented for the central campuses of Çanakkale University and Çanakkale. Since the area in which recreational activities will be carried out and developed more is Terzioğlu Campus, most of the subjects have been selected from this area. However, the findings obtained will be able to help determine the needs and demands of the students attending the other faculties and schools of Çanakkale Onsekiz Mart University.

46.5% of the participants was female and 53.3% was male. Distributions of age groups of those participating in the questionnaire (Table 1 a-a), their titles (Table 1 a-b) and their duration of stay in Çanakkale (Table 1 b-c) and the school year of the students (Table 1 b-d) were given in percentages. Accordingly, when age distribution was considered, those between the ages 18 and 29, with the highest ratio of 55.2%, were majority. A balanced distribution was ensured according to the titles of the participants, but more students were reached knowing that the number of the students at the university was in majority. As the duration of the students' stay in Çanakkale, the school year of the students were taken into consideration. The biggest part of the participant consisted of Year 1 students. 76.9% of the participants comes from different cities other than Çanakkale and 22.3% comes from Çanakkale.

When the economical situations of the participants are considered, it is seen that they mostly have an income of 1500 Turkish Liras or below (Table 2a). How often the participants could engage in recreational activities was determined as follows: Those who say I do an activity everyday: 9.1%; those who say I can do an activity only at weekends: 29.3%; those who say I sometimes do an activity on weekdays or at weekends: 61.1%; those who say I do an activity at some weekends: 0.4% (Table 2b). When we look at the means of transport that the participants use to reach recreational activities, we see that public transport is mostly used (Table 2c).

70.9 % of the participants stated that they could not do recreational activity enough. The most important reasons for this, according to the open-ended questions given to the participants, can be stated as follows: lack of time, lack of a suitable recreational area, financial problems, not making recreation a life habit, and health problems. Since the same person could state more than one factor at the same time, a computation was conducted for each factor preference as percentages (Table 3). Then, the responses of all the participant groups to the factors were shown in one table and compared and main factors limiting their recreational activities were investigated (Table 4). In this case it is seen that lack of a suitable recreational area was stated as the most important factor for the students, academic staff and other academic personnel. Lack of time was stated as the most important factor for not being able to do recreational activities by the administrative staff and research assistants.

The participants were asked to choose/mark more than one option when considering the problems they had in the recreational areas in the province Çanakkale and at university. Evaluation was made according to the ratio of having each determined problem

Table 1a. Characteristics of participants.

a- Age distribution			b- Titles		
Age	Distribution	%	Title	Distribution	%
18 - 29	258	55.4	Lecturer	87	18.7
30 - 40	139	29.8	Research Assistant	49	10.5
41 - 50	55	11.8	Academic Staff	54	11.6
50 <	14	3.0	Administrative Staff	83	17.8
Total	467		Student	193	41.4

Table 1b. Characteristics of participants.

c- Duration of their stay in Çanakkale			d- The school year of the Students		
Year	Distribution	%	Class	Distribution	%
<2 year	56	20.5	Prep. Class	22	11.5
3 - 5	85	31.1	Year 1	71	37.0
6 - 10	79	28.9	Year 2	42	21.9
11 - 15	53	19.4	Year 3	23	12.0
			Year 4	29	15.1
			Year 5	5	2.6

Table 2. Income levels, time they spare for recreation, and type of transport of the participants.

a- Income			b- Recreation Time			c- Transport		
Income	Distribution	%	Time	Distribution	%	Vehicle	Distribution	%
<1000	151	37.9	Every day	42	9.1	Own	181	39.9
1000 - 1500	141	35.4	Weekend	135	29.3	Public transport	245	54.0
1550 - 2000	49	12.3	Sometimes	281	61.1	Friend's	28	6.2
2050 - 2500	22	5.5	Some weekends	2	0.4			
2500<	35	8.8						

Table 3. Factors that cause all the participants not to do enough recreational activity.

Factors	Person	%
Lack of time	150	32.1
Lack of suitable recreational areas	184	39.4
Financial reasons	33	7.1
Not making it a habit	20	4.3
Health problems	2	0.4
Total	467	

(Table 5). Accordingly, the most important problem of the current recreational areas is lack of quality and the second most important problem is inadequacy in amount.

The social structure of the participants were realized by asking them with whom they participate in the activities in Çanakkale and at the university and they were asked to choose/mark more than one options (Table 6).

The respondents were presented some recreational activities that could be carried out in Çanakkale and they were asked to rank them in order of preference. The preferred activities were given in order of percentages as Number 1, 2 and 3. The activities preferred

with a ratio of more than 7% were taken into consideration (Table 7). Accordingly, the most preferred recreational areas for Çanakkale are, in the first three, an amusement centre, a cinema, a theatre and concert halls. The other most preferred activities to be wished to be in the first order are as follows in order of preference: A multi-purpose culture centre, outdoor-indoor sports centre, a bicycle path, a walk path and a racetrack, a botanic garden and a zoo. The second most preferred activities after the amusement centre include a multi-purpose culture center and an outdoor-indoor sports centre. The third most preferred activities after the amusement centre are; an outdoor-indoor sports centre and a bicycle path.

Table 4. Separate evaluation of the participant groups doing enough recreational activity.

Factors	Student (%)	Lecturer (%)	Other academic staff (%)	Administrative staff (%)	Research Assistant (%)
Lack of time	18.7	44.3	40.0	36.1	51
Lack of suitable recreational areas	42.5	48.9	44	21.7	34.7
Financial reasons	5.2	6.8	8,0	13.3	2
Not making it a habit	1.6	8.0	2	8.4	4.1
Health problems	-	2.3	-	-	-

Table 5. Problems of current recreational areas.

Problems	Those who see them as a problem (%)
Lack of quality	63
Inadequacy in amount	58
Inadequate Landscape plan	46
Not economical	34
Not enough care and cleaning	33

Table 6. With whom they participated in the recreational activities.

With whom they participated in the activity	Percent (person) (%)
Alone	13
With my family	21
With my colleagues	7
With my friends	54
With my children	2.9
With my neighbors	0.08
Sometimes with my neighbors sometimes with my friends	0.1
Both with my family and friends	17

The ordered list of demands for recreational activities that the participants would like to have on the campus of Çanakkale Onsekiz Mart University is as follows (Table 8): The demand for a multipurpose art-culture centre ranks number one. The others are put in order as follows: Outdoor recreational areas, a swimming pool, outdoor sports facilities, a multi-purpose indoor sports hall, and a shopping centre. The demand for outdoor recreational areas ranks number two. The others are put in order as follows: outdoor sports facilities, a swimming pool and a multi-purpose indoor sports hall. The demand for outdoor recreational areas ranks number three. The others are, in order, a swimming pool, a multi-purpose art-culture centre.

RESULTS AND DISCUSSION

The term recreation will be more on the agenda of the states and people in the future. Because unemployment and thus working conditions becomes more and more difficult everyday, it will make particularly the needs of working people such as relaxing and entertaining more

important. Recreational demands has not only become the needs of people but also the states have accelerated their investments in this issue to get more output from the people they make work in their states. It is not a coincidence in the developed countries that they focus their attention on the issues such as nature, environment, health and making people living there more aware of the issue. This awareness will provide a positive effect to spread recreation to large masses of people in the following years (Ceyhun, 2008).

The situation of the distribution of population in planning urban recreational areas and considering how to meet the needs of this population is one of the most important principles that needs attention. Decisions about the plans should be made according to the social and economical structure and ages of the families and their preferences about the recreational activities (Baud-Bovy, 2000).

According to Özkan (1992), city-dwellers seek the ways

Table 7. List of activities demanded for Çanakkale.

Recreational activity	Order and percentage of demands		
	1 st demand (%)	2 nd demand (%)	3 rd demand (%)
1- Multi-purpose culture centre	21	10.2	6.4
2- Amusement centre, cinema, theatre, concert halls	29.5	17.9	9.2
3- Game centre (snooker, bowling etc.)	6.4	5.9	3.6
4- Youth clubs	4.7	4	5.7
5- Internet-computer Centres	2.1	2.1	2.5
6- Disco cafe-bar	2.7	1.2	3.4
7- Hobby centre (small handmade crafts, workshop and course)	6.4	5.9	6.8
8- Music education and training centre	4.7	4.2	5.7
9- Outdoor and Indoor sports hall	13	9.8	8.5
10- Sports and game areas for the disabled	4.2	2.7	3.4
11- Bicycle path	7.7	3.2	7.4
12- Walking path and racetrack	7.2	5.5	5.5
13- City park	6.6	3.6	3.8
14- Neighborhood park	3.2	2.9	2.3
15- Playgrounds for children	4.2	2.9	3.2
16- Botanical garden and zoo	7.2	4	4.7
17- Ice-skating ring	3.2	1	2.5
18- Picnic areas	5.5	4	5.3

Table 8. Recreational activities for Çanakkale Onsekiz Mart University.

Recreational activity	Order and percentage of demands		
	1 st Demand (%)	2 nd demand (%)	3 rd demand (%)
1- Multi-purpose art-culture centre	27	6.8	7.9
2- Outdoor sports facilities	14	15.2	8.9
3- Outdoor recreational places	17	17.9	11.5
4- Cafeteria and canteen	5,9	6.2	7.2
5- Swimming pool	15	10	10.4
6- Multi-purpose indoor sports hall	11	7.4	7.9
7- Ice skating	2.9	2.9	2.7
8- Bicycle path	3.4	2.9	4.2
9- Walking path and racetrack	5.9	3.8	5.3
10- Botanical garden	6.4	4.2	6.8
11- Picnic areas	3.6	3.6	3.8
12- Hobby centre (small handmade crafts workshop and course)	4.4	4	3.6
13- Game centre (snooker, bowling, etc.)	4.4	2.3	2.7
14- Shopping centre	9.4	2.9	4.9

to get back to the nature, even if temporarily, in order to reach the recreational areas incase urban development becomes far from the recreational areas and when less recreational areas are planned. Nonetheless, when natural, qualified, functional and countryside recreational areas are very few in number and the number of the existing ones becomes even less, it will lead people to more remote recreational tourism areas for recreational purposes according to their financial status and time (Aslan, 1993).

In the study conducted by Müderrisoğlu and Uzun, (2004) about the determination of recreational tendencies of the students of the Faculty of Forestry of Abant İzzet Baysal University, it was aimed to shed a light on the plans for future by determining the demographic structures, recreational experiences and recreational preferences of the students. In the study it was also stressed that recreational planners and managers should constantly monitor the change in the profiles of the participants and revise their decisions about planning

Table 9. Income-recreation competence.

Income-recreation competence				
		1.00	2.00	Total
Income	1.00	44	106	150
	2.00	34	106	140
	3.00	11	38	49
	4.00	5	16	21
	5.00	13	22	35
Total		107	288	395
		Value	Df	Asymp. Sig. (2-sided)
Pearson chi-square		3.379 \square	4	0.496
Likelihood ratio		3.297	4	0.509
Linear-by-linear association		0.107	1	0.744
N of valid cases		395		

(^a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.69.

regarding the change.

In the study of Kiper (2009) on the students of the Faculty of Agriculture of Namik Kemal University in Tekirdağ, it was found out that the students had enough time to spare for recreational activities but they were inadequate and indifferent about evaluating their leisure time.

In another study conducted by Çolakoğlu (2005) on the academic staff of Gazi University, it was determined that working hours of the academic staff were high and they do not have leisure time activities, but they would be able to join several activities provided that proper recreational activities were organized at the right time.

In the study directed at the staff and students of the central campuses of Çanakkale Onsekiz Mart University, the most important reason for not doing enough recreational activity was found out to be the lack of a suitable recreational area, with a ratio of 39.4%. In order to determine the effect of being unable to do recreation on their income status, Chi-square significance test was used between the income status and being unable to do recreation. As a consequence, it was found out that it did not change depending on the income status (Table 9). It is seen that the most important factor for being unable to do recreation is lack of a suitable recreational area and the second most important factor is lack of time.

As stated in the study conducted by Turgut et al. (2009) about the determination of the recreational tendencies and demands of the students of Erzurum Atatürk University, the organizations to be held on university campuses do not only enrich social life of the students but also help the university to create an identity. At the same time, true planning of the university campus plays an important role in the physical and social development of the city.

Recreational areas demanded by the participants primarily for Çanakkale province are; an amusement

center, a cinema, a theatre, and concert halls. On university campus the most demanded recreational area is a multipurpose art-culture centre. In the future planning of Çanakkale province and Çanakkale Onsekiz Mart University, decisions to be made in this direction, designs to be made according to the user profiles and demands will enable the needs to be met properly and increase the quality of life.

REFERENCES

- Anonymous (2008-a). Çanakkale Onsekiz Mart University. Students Affairs Office.
- Anonymous (2008-b). <http://www.comu.edu.tr>. Accessed date.
- Aslan Z (1993). The Triggering Effect of Industrialization and Urbanization on the Requirement of Recreational Activities in Nature, *Ecol. J.*, 8: 22-24.
- Balci V, İlhan A (2006). The Determination Student's Participation Levels to Recreational Activities in Universities of Turkey, *SPORMETRE J. Phys. Edu. Sport Sci.*, 4(1): 1-18.
- Baud-Bovy M, Lawson F (2000). *Tourism and Recreation Handbook of Planning and Design*. Architectural Press, Great Britain, ISBN 0 7506 3086 8.
- Ceyhun S (2008). In Usage of Sport Facilities As a View of Recreative, *Kastamonu University Kastamonu Edu. J.*, 16(1): 325-332.
- Çolakoğlu T (2005). A Study on the Leisure Time Habits of Academic Staff, *J. Gazi Educ. Faculty*, 25(1): 247-258.
- Godbey GC, Caldwell LL, Floyd M, Payne LL (2005). Contributions Of Leisure Studies And Recreation and Park Management Research to The Active Living Agenda. *Am. J. Prev. Med.*, 28(2): 150-158.
- Güngörmüş HA, Yetim AA, Çalik C (2006). Research on Spending The Leisure Time of Lecturers Worked in Schools Of Physical Educaion and Sports in Ankara, *Gazi University Kastamonu Edu. J.*, 14(1): 285-298.
- Kara F, Demirci A, Kocaman S, Keçeli A (2008). Analysis of Recreational Areas of Eminönü and Fatih Districts in the Case of Urban Geographical Perspective, *Elect. J. Soc. Sci.*, 7(25): 157-169, ISSN: 1304-0278.
- Karaküçük S (1999). *Rekreation Evaluation of Leisure Time*. Gazi bookshop, IBSN 975-581-048-X, p. 143, Ankara.Turkey.
- Kiper T (2009). Determination of Recreational Tendencies and Demands of Students at Namik Kemal University, Faculty

Agriculture (Tekirdağ), J. Tekirdag Agric. Faculty, 6(2): p: 191-201.
Müderrisoğlu H, Uzun S (2004). Recreational Tendencies of Students at Forestry Faculty, Abant İzzet Baysal University, Journal of the Forestry Faculty, Süleyman Demirel University, 2: 108-121.
Önder S (2003). A Research on Determination of Recreational Tendency and Demands of Students of Selçuk University, J. Agric. Fac. Selçuk Univ., 17(32): 31-38, Konya.
Sertkaya Ş (2001). A Study on the determination of tourism and recreation potential of the Bartın coastal zone, Ankara University

Graduate School of Natural and Applied Sciences Landscape Architecture Department, Doctorate thesis, Ankara, p. 371.
Turgut H, Yeşil P, Yılmaz S (2009). Determining the Recreational Demands and Tendencies of Students at Atatürk University Through Questionnaires. Sci. Res. Essays, 4(3): 152-158.