e-ISSN: 2458-8377 DOI: 10.15316/SJAFS.2018.120



#### **Selcuk Journal of Agriculture and Food Sciences**

## Comparison of Park Users' Satisfaction in The Example of Konya and Kirkuk Cities\*

Walaa Ghassan ALABBAS<sup>1</sup>, Ahmet Tuğrul POLAT<sup>2</sup>

<sup>1</sup>Selcuk University, Faculty of Agriculture, Department of Landscape Architecture, Konya, Turkey

#### MAKALE BİLGİSİ

#### Article history:

Received date: 05.10.2018 Accepted date: 06.11.2018

#### Keywords:

Konya Kirkuk Satisfaction Park Park user

#### 1. Introduction

As a result of increasing urbanization, rapid advancement of technology, increasing number of concrete blocks and too much increase in consumption after mankind adopted a sedentary life, mankind faced risk of losing natural resources (Zaloğlu, 2006). Air pollution in cities, traffic problem, rapid destruction and elimination of natural areas, negative effects of urban areas shaped by excessive population growth cause people to need areas that they can benefit from in their free time socially, culturally and physiologically (Celik, 2013). Decrease in green areas due to various reasons each passing day clearly reveal recreational needs. Garden and the green area facts that have met these needs for many centuries, have left their place to parks (Kızıldere, 2009). Parks are one of the most important open areas created to meet urban people's need for green area and recreation.

#### ABSRACT

Parks are built for fulfilling urban person's longing for the nature, increasing social and cultural interactions and enabling human comfort in the open area. Parks are the most important elements of urban open-green area system. Planning and design processes of parks should be carried out carefully. At this point, one of the most important issues is to carry out these processes with multidisciplinary, participatory and multi-denominator togethernesses. Of course, the most important one of these sharers is people who will use the park that will be designed and built, in other words, users of that park. In this study; users' satisfaction rates for security, maintenance, quality, sufficiency and development speed of urban parks in Konya and Kirkuk have been determined. Based on the data obtained, satisfaction levels of users of Konya and Kirkuk urban parks have been compared. According to research findings; it has been determined that there are significant differences between participants of Konya and Kirkuk provinces in terms of security, sufficiency and development speed parameters. Based on the findings and results obtained, suggestions have been made to relevant people and institutions.

> Main function of the parks is to please users, in other words, to enable public use, to give joy, happiness and peace. Well managed parks provide services that nothing else can provide. Ability of parks to be used by a large number of people and their ability to serve for many years are their unique features (Yorulmaz, 2006). Parks allow users to get in contact with nature. It allows urban people to get in contact with world of plants which were lost in cities. Parks provide safe playgrounds for children away from motor vehicle traffic and aesthetically contribute to the city with their plants and structural textures. They soften appearance of irregular building complexes (Kızılaslan, 2007). Parks and use of parks have direct or indirect positive effects on human health and welfare through recreational and spare time activities. Urban parks play an important role in establishing strong social bonds and relationships. They draw attention due to their contribution to local economy through tourism and recreational visits. As a part of urban living spaces, parks reflect their own values on higher real estate prices. Also, parks contribute to water management by regulating water escaping because of surface runoff while collecting rainwater (Konijnendijk et al., 2013).

<sup>&</sup>lt;sup>2</sup> Selcuk University, Faculty of Agriculture, Department of Landscape Architecture, Konya, Turkey

<sup>\*</sup>This study was produced from Master's thesis of Walaa Ghassan ALABBAS and published as a summary at congress named 1st International Conference on "Agriculture, Forestry & Life Sciences" 6-8 September 2018 in Budapest.

<sup>\*</sup> Corresponding author email: atpolat@selcuk.edu.tr

Park areas are expected to provide services for the needs and requests of different age groups, genders and occupational groups separately. Because of this reason, in planning, it is necessary to consider primarily the designs that give peace and confidence to users, enable them to relax and rest, and most importantly, to be pleased. Planning oriented decisions should be made by systematizing criticisms, reactions, requests of users, various observations, researches such as monitoring, investigation (Kart, 2002). According to Uysal et al., (2002), park users need to be satisfied with the experience they got in parks in order to gain favor from parks. Because of this reason, it is important for public outdoor recreation managers to know public's satisfaction about facilities they visit and services they benefit from. Knowing the reasons for satisfaction with experiences that park users get from parks will contribute to increase in benefits obtained from urban parks and to manage those areas more sustainably (Cetinkaya et al., 2015).

Etymologists stated that the term "satisfaction" was derived from the Latin words "satis" (enough) and "facere" (to make or to do) (Oliver, 1996). Mahdavinejad and Abedi (2011), "Satisfaction is fulfilment of a wish or need, satisfying a desire". According to Manning (1999), satisfaction needs to be measured by researchers and managers very sensitively because it is a multidimensional concept.

Some features of parks such as security, maintenance, quality, sufficiency and development speed also have significant effects on park users' satisfaction.

Security starts around the park, feeling that control is established on the area, seeing the area, running away easily in case of danger and getting support from the surroundings enable such place to be seen safer. For safe park surroundings, security personnel, communication, transportation facilities and first aid units are need to be provided. Clear vision fields in the park are also effective for perceiving security. Clear vision fields help to determine presence of people who may pose a threat to park users. Accurate planting and adequate lighting may contribute to creation of clear vision fields. Thus, safer environments for users can be created by reducing isolated areas where criminal activities may occur (Ekal, 2010).

Seasonal maintenance and cleaning are the main issues of park maintenance, park structures and equipment should be repaired or replaced, garbage should be removed, park arrangements and landscaping should be made specific to each season. Also, each plant species should be fertilized separately and soil should be cultivated according to species. Periodical application of pesticide is vital for plant health in order to fight against problems caused by insects and plant diseases caused by fungi, bacteria and viruses. Plant pruning at the right time and in a proper way is essential for healthy development of plants (Anonymous, 2015). Inadequate maintenance of parks may be caused by

insufficient budget or lack of proper management or maintenance schedule. In order to maintain parks more efficiently and effectively, a maintenance program should be prepared at first (Yücel and Yıldızcı, 2006). Also, mistakes resulting from implementation can be corrected by a good maintenance work (Melikoğlu, 2007).

One of the important factors to consider while increasing quality in communities, is presence of green areas (Pawinee et al., 2004). For meeting such needs in daily living environment, urban spaces have great importance. The most important of such places is urban parks consisting of many recreational possibilities along with facilities (Polat and Önder, 2004). Parks have strategic importance for quality of life in a rapidly urbanized society. Parks provide cultural and psychological opportunities in addition to significant environmental benefits such as fresh air supply, water treatment, wind/noise prevention and stabilization of local climate conditions. Parks are important for livability of modern cities and for welfare of citizens (Aksoy, 2010).

According to Önder and Polat (2012), green areas will be utilized in an optimum way primarily with their sufficiency in terms of their location, size, accessibility, green area quality and presentation diversity and with provision of appropriate conditions of use for people in the city. Ecological adequacy of parks is evaluated according to their firm ground coverage (Doygun and Kısakürek, 2013).

Urban parks develop continuously with social problems, recreation habits of cities and culture of community (Cranz, 1991). Strategy for sustainable landscape development should not focus only on physical sustainability, sustainability indicators of cities should include more, most importantly, processes that users can participate in should be created (Mahdavinejad and Abedi, 2011). Development speed of parks should be arranged by considering these matters for park planning works.

According to Tinsley et al. (2002), there are significant differences among ethnic groups such as African-American, Spanish-American, Asian-American and Caucasian-American in terms of park facilities, their social environment in park, park visit and psychosocial utility scores of parks use. In this study; users' satisfaction rates for security, maintenance, quality, sufficiency and development speed of urban parks in Konya and Kirkuk have been determined. Later, different cultures, geographies, social life habits and satisfaction levels of park users in Konya and Kirkuk cities have been compared based on the findings obtained.

This comparison also shows what kind of changes park planning and design works may undergo on universal and regional scales according to the satisfaction levels of park users. Suggestions related to the topic for relevant regions have been developed on the basis of results obtained.

#### 2. Material and Method

#### 2.1. Material

Users of Konya and Kirkuk urban parks were selected as main research material (Figure 1). Konya Province is located in the south of Central Anatolia Region which is in the middle of Anatolian Peninsula. Surface are of Konya is 38.873 km2 and a large part of it is on the high plains of Central Anatolia. Its South and Southwest parts are in the Mediterranean Region. Its altitude is average 1011 m. Population of Konya is 2.180.149 according to 2017. Summers are hot and dry, winters are cold and rainy in Konya, having a continental climate (Anonymous, 2014). Kirkuk city is boarded by Sulaymaniyah to the east, Koy Sanjaq and Erbil to the north, Mosul to the west, Baghdad to the southwest (Anonymous, 2017a). Kirkuk territories are 9,676 km2, cover 2,2% of Iraq's total surface area and its population is 1,26 million (Anonymous, 2017b). In Kirkuk, average annual rainfall is 365 mm and mean yearly temperature is 21.6 (Anonymous, 2018).

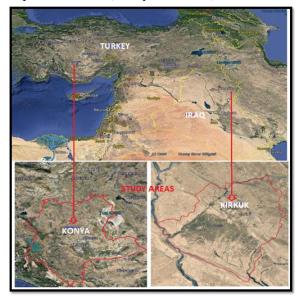


Figure 1 Location of Study Areas

Literature such as books, journals, articles, papers, master's and doctoral theses published related to urban parks and satisfaction levels of urban park users and internet resources were used as research material. Also, A4 size questionnaire form consisting of 4 pages, Office 2016 and SPSS 22 softwares are other materials of the research.

#### 2.2. Method

In research method, it was started to design questionnaire after topic was determined and literature research was carried out. Survey questions were prepared in such a manner to include users' demographic characteristics (gender, age, educational level, income level and occupation) and according to information based on literature, user satisfaction, security, quality,

maintenance, sufficiency and development speed parameters. Questionnaire was tried to be made easy and applicable. Questionnaire study was conducted by using face-to-face interview method in Konya and Kirkuk cities in Turkish/Arabic languages.

Questionnaire was made in the parks of related cities on weekends and in the daytime. Sample size was calculated as 96 people for each of Konya and Kirkuk cities (Özdamar, 2003). However, it was tried to increase the number of questionnaires to be made as much as possible by considering that there might be invalid questionnaires. Questionnaire which was conducted with 212 participants in Konya Province and 103 participants Kirkuk Province, was used in the research.

 $n = (N.P.Q.Z \alpha^2)/((N-1). d^2)$ 

N: Population unit number, n: Sample size P: X's rate of being observed in the population

Q: (1-P): X's rate of not being observed

Za: 1.96 for  $\alpha$ = 0.05

d: Sampling error

By taking (p=0,5; q=0,5) with (d=0,10) sample error for  $\alpha$ = 0.05

Sample size for Konya city;

N=2.180.149\*0,5\*0,5\*(1,96)2/(2.180.149-1)\*(0,10)2=96

Sample size for Kirkuk city;

 $N{=}1.260.000{*}0,5{*}0,5{*}(1,96)2/(1.260000{-}1){*}(0,10)2{=}96$ 

After questionnaire was completed, questionnaire forms were arranged by means of Microsoft Excel software and frequencies of data obtained were calculated by means of SPSS 22 software. Then, Man Whitney U statistical test was applied to this data. As a result, differences between satisfaction levels of park users in Konya and Kirkuk cities were tried to be determined.

#### 3. Research Findings

#### 3.1. Demographic Characteristics of Participants

Demographic characteristics of participants are given in Table 1 within the scope of questionnaire study. According to this; approximately half of the participants in Konya Province are male and half of them are female. Approximately half of the participants are students between the ages of 19 and 25, most of them are university graduates, their average income level is between \$0 and 300. Approximately half of the participants in Kirkuk Province are male and half of them are female. Nearly half of the participants are between the ages of 18 and 25 and income level of more than half of them is between \$300 and 1100. More than half of the participants are university graduates and about one third of them are public personnel (Table 1).

Table 1
Participants' Distribution by Demographics

	Konya		Kirkuk	
Gender	Number	%	Number	%
	of Peo-		of Peo-	
	ple		ple	
1. Female	102	48	48	49
2. Male	110	52	55	51
Age				
1. 0-18	22	10	14	15
2. 19-25	95	45	26	26
3. 26-35	38	18	18	17
4. 36-50	31	15	12	13
5. 51-65	24	11	18	23
6. 65 and older	2	1	8	6
Educational status				
1. Illiterate	2	1	9	10
2. Primary school graduate	16	8	13	13
3. High school graduate	65	31	17	19
4. University	106	50	49	50
5. Postgraduate	22	10	8	8
Occupation				
1. Student	96	46	20	20
2. Public personnel	31	14	30	34
3. Self employed	32	15	12	10
4. Unemployed	8	4	4	4
5. Housewife	14	7	15	14
6. Worker	10	5	9	10
7. Retired	19	9	7	8
Average monthly income				
1. \$ 0-300	80	46	22	29
2. \$ 300-600	58	28	22	26
3. \$ 600-1100	35	16	22	32
4. \$ 1100 and more	21	10	9	13

#### 3.2. Findings Based on Satisfaction

# 3.2.1. Distribution of participants' responses for their satisfaction level in respect of general situation of parks

In general, participants were asked to what extent they were satisfied with the parks in the city where they lived. Answers were received according to 5-point Likert scale. Results of participants' satisfaction with Konya and Kirkuk parks are given in Figure 2. According to this, it is seen for both provinces that approximately half of the participants are satisfied with the parks in the city where they live. However, number of participants who are not satisfied with the parks is higher in Kirkuk Province when compared to Konya Province.

3.2.2. Distribution of participants' responses for their satisfaction level in respect of security of parks

Participants' satisfaction levels related to security of Konya and Kirkuk parks are given in Figure 3. According to the findings, it was determined that satisfaction rates of participants in Konya Province related to security of parks were very low. On the other hand, it is seen that approximately half of the participants in Kirkuk Province are satisfied with security of the parks in the city. It is guessed that this result is based on security measures taken because of ongoing ethnic problems in Kirkuk Province and in the region. As in every part of Kirkuk Province, public security applications are carried on intensively at almost every hour of the day. These applications also increase park users' satisfaction level related to security services. Park users' low satisfaction level related to security in Konya is associated to frequent occurrence of crimes (robbery, theft, abuse, etc.) in Konya parks.

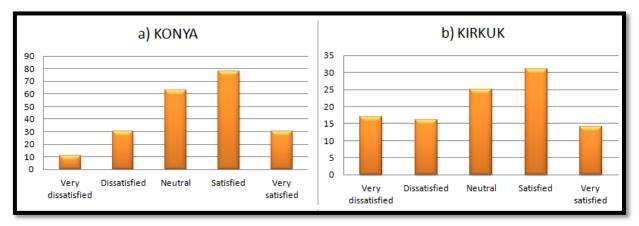


Figure 2
Distribution of Participants' Responses for Their Satisfaction Level in Respect of General Situation of Parks

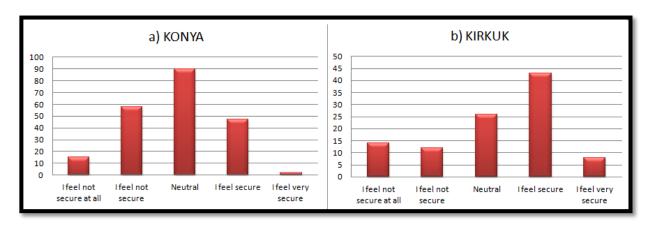


Figure 3
Distribution of Participants' Responses for Their Securities in Parks

### 3.2.3. Distribution of participants' responses for maintenance of parks

Participants' satisfaction levels related to maintenance of Konya and Kirkuk parks are given in Figure 4. When graphics are viewed, it is seen that about half of the participants in Konya and Kirkuk Provinces are satisfied with maintenance works carried out in the parks which are located in their cities. However, in terms of participants' dissatisfaction, it is seen that rate of users of Kirkuk city parks are higher than users of Konya urban parks. It is thought that this is related to works of local authorities that are responsible for maintenance of the parks.

### 3.2.4. Distribution of participants' responses for quality of parks

Participants' satisfaction levels related to quality of Konya and Kirkuk parks are given in Figure 5. According to the figure, about one third of participants in both cities stated that they were satisfied with quality of the parks which were located in their cities. However, about one third of participants in Kirkuk Province revealed again their dissatisfaction with their answers

related to quality of the parks. It is thought that deficiencies and mistakes in planning, design and implementation processes of the parks cause this dissatisfaction. There are also problems about plantation and ornamental plant materials.

### 3.2.5. Distribution of participants' responses for quality of parks

Participants' satisfaction levels related to sufficiency of Konya and Kirkuk parks are given in Figure 6. It is understood from the findings that about half of the participants in Konya Province are satisfied with sufficiency of parks in Konya, about one third of the participants in Kirkuk Province are satisfied with sufficiency of parks in Kirkuk. However, it has been determined as a dramatic result that about half of the users in Kirkuk Province are not satisfied with sufficiency of parks in Kirkuk. The low number of parks in whole Kirkuk Province is thought to be the most effective reason for this result.

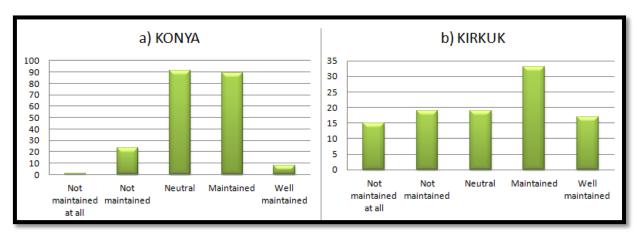


Figure 4
Distribution of Participants' Responses for Maintenance of Parks

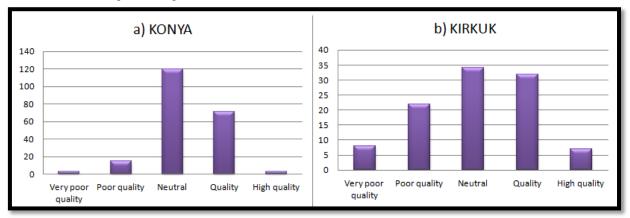


Figure 5
Distribution of Participants' Responses for Quality of Parks 3.2.6. Distribution of participants' responses for quality of parks

Participants' satisfaction levels related to development speed of Konya and Kirkuk parks are given in Figure 7. According to the results, it was found that park users in Konya Province were significantly satisfied with development speed of parks in Konya. When this situation was evaluated by park users in Kirkuk, it

was found that development speed of parks in Kirkuk was low and users' dissatisfaction in this regard was determined. Three parks have been built in Kirkuk Province in the last five years. This can be considered as an indicator of development speed of parks in Kirkuk Province.

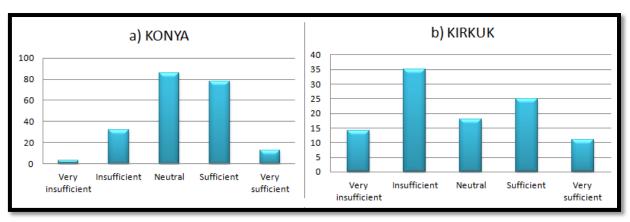


Figure 6
Distribution of Participants' Responses for Sufficiency of Parks

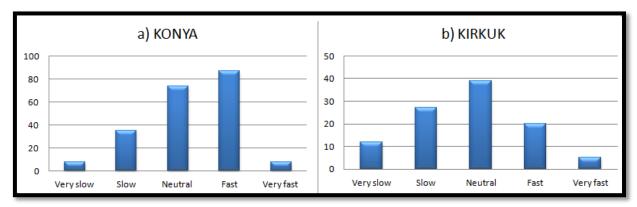


Figure 7
Distribution of Participants' Responses for Development Speed of Parks

3.3. Comparative Analysis of Satisfaction and Preferences of Park Users in Konya and Kirkuk Provinces

Within the scope of research carried out Konya and Kirkuk Provinces, questions were asked to park users based on satisfaction, responses were arranged and their frequencies were given as graphics in the findings section. Responses of park users in both cities were compared in this section of the research. This comparison was applied to data of participants from both cities through Man Whitney U which is a statistical method and results were interpreted by being evaluated.

Comparisons were made according to six parameters for the use of parks and according to statistical analysis results; significant differences were determined in satisfaction levels of park users in three of these six parameters which were security (p:0,001), sufficiency (p:0,000) and development speed (p:0,000)

(Table 2). Beside this, there was no significant difference in satisfaction, maintenance and quality in general. When data given in Figure 3. is seen, it is found that park users in Kirkuk Province feel more secure than park users in Konya Province regarding security. When graphic given in Figure 6. is viewed, dissatisfaction related to sufficiency of parks in Kirkuk is determined, but it is seen that park users in Konya are satisfied with sufficiency of parks in Konya. Likewise, while park users in Konya Province were satisfied with development speed of parks, park users in Kirkuk Province expressed the opposite opinion. When evaluated in general, we can say that there is a difference between satisfaction levels of park users in Konya Province and park users in Kirkuk Province. This is also supported by the fact that park satisfaction parameter (p:0,05) is at the limit of significance (Table 2).

Table 2 Comparative Analysis of Satisfaction of Park Users in Konya and Kirkuk

	Satisfaction	Security	Mainte- nance	Quality	Sufficiency	Develop- ment Speed
Mann- Whitney U	9513,00	8427,50	10365,00	9920,50	8350,50	8106,50
Wilcoxon W	14869,00	31005,50	15721,00	15276,50	13706,50	13462,50
Z	-1,92	-3,43	-0,77	-1,43	-3,53	-3,89
Asymp. Sig. (2-tailed)	0,05	0,001*	0,44	0,15	0,00*	0,00*

#### 4. Conclusion and Recommendations

Within the scope of the research, questionnaire study was conducted to determine satisfaction levels of park users in Konya and Kirkuk Provinces related to parks which were located in cities where they lived. Although sample size was calculated as 96 for both cities, questionnaire was conducted by making one on one interviews with more people. However, number of valid questionnaires was determined as 212 in Konya Province and 103 in Kirkuk Province and research was carried out according to these numbers. In the ques-

tionnaire conducted, a balanced rate was provided in terms of demographic characteristics of the participants. Preferences of participants from both cities related to parks and their satisfaction levels according to some parameters were determined. In the last part of the study, data obtained from Konya and Kirkuk Provinces were statistically compared and analysed.

In the part of study related to personal characteristics of the participants; it is seen that number of participants who are young and high school graduate students is higher in Konya Province than Kirkuk Province, however, more public personnel participated in questionnaire in Kirkuk Province than Konya Province.

In terms of the income levels of the participants, participants in Kirkuk Province have higher income.

When results of the research related to satisfaction are evaluated in general, it is seen that participants in Konya Province are more satisfied. In terms of security parameter, participants in Kirkuk Province stated that they were more satisfied than participants in Konya Province. When maintenance parameter was viewed, it was seen that participants in Konya and Kirkuk Provinces were satisfied with maintenance works carried out in the parks located in their cities. In terms of quality parameter, it was seen that participants were satisfied with quality of parks for Konya and Kirkuk Provinces. When it was looked in terms of sufficiency and development speed, it was seen that participants in Konya Province were satisfied, but participants in Kirkuk Province were not satisfied with sufficiency and development speed of parks in Kirkuk.

In conclusion, in the comparative analysis of data obtained in two provinces, it is seen that there is a difference in terms of satisfaction in general. It was determined that there were statistically significant differences in security, sufficiency and development speed parameters.

With this research, satisfaction levels of park users in the cities of two countries, differing from each other in terms of geography, culture and climate, were investigated. With satisfaction data obtained, important information will be provided for park renovation works by making inferences for park designs.

Unplanned development in cities of our country and our society, caused by rapid urbanization process, reveals itself in many areas. A serious study and training process are required for creation of urbanity awareness, getting social life in order and emergence of public space use as a result of public's requests and claims as in developed countries. For this reason, decision makers and managers need to do their best for user attended works in this process.

With satisfaction studies, especially local authorities should determine what kind of deficiencies parks have. These kinds of studies that will be conducted by local authorities can be used in the renovation works of existing parks and parks that cannot be used or are underused due to various deficiencies and problems can be brought into service again. Also, current situation analysis obtained from satisfaction studies will form an important basis for new park planning and design studies.

With the inclusion of park users in park planning, design, implementation and management studies, plans containing urban management decisions will have an integrity and all parking spaces in the city will be created so as to provide continuity and flexibility for the changes that may occur in time.

#### 5. References

- Anonymous (2014). Konya Hakkında Bilgi, http://www.cografya.gen.tr/tr/konya/
- Anonymous (2015). Park & Bahçe Bakımı ve Peyzaj, http://www.glmgrup.com/park-bahce-bakimi-peyzaj.php:
- Anonymous (2017a). كركوك تنقع أيان http://mawdoo3.com/%D8%A3%D9%8A%D9%86 \_%D8%AA%D9%82%D8%B9\_%D9%83%D8%B 1%D9%83%D9%88%D9%83:
- Anonymous. (2017b). Kerkük'ün Nüfusu Ne Kadar? https://www.yenicikanlar.com.tr/kerkukun-nufusu-ne-kadar-1221/:
- Anonymous (2018). İklim: Kirkuk, https://tr.climate-data.org/location/2920/:
- Aksoy Y (2010). Examining the ecological quality of Küçükçekmece District parks in Istanbul in terms of permeability and natural vegetation. *Ekoloji*, **19** (74): 181-189.
- Cranz, G (1989). Four Models of Municipal Park Design in the United States, Denatured Visions: Landscape and Culture in the Twentieth Century. New York: Museum of Modern Art.
- Cranz, G (1991). Four models of municipal park design in the United States, Denatured Visions: Landscape and Culture in the Twentieth Century. New York: Museum of Modern Art.
- Çelik M. (2013). Kent parklarının görsel peyzaj algısının Denizli ili örneğinde irdelenmesi. Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü.
- Çetinkaya G, Erman A, Uzun MS (2015). Rekreasyonel amaçlı park kullanıcılarının memnuniyet ve memnuniyetsizlik faktörlerinin belirlenmesi. *International Journal of Human Sciences* **12** (1): 851-869.
- Doygun N, Kısakürek Ş (2013). Kahramanmaraş'da Bazı Kent Parklarının Geçirimli Zemin Yeterliği Bakımından İncelenmesi. İnönü Üniversitesi Sanat ve Tasarım Dergisi. 3 (7).
- Ekal SK (2010). Büyük Atakya Parkı'nın Rekreasyonel Talep Özelliklerinin Saptanması. İstanbul Üniversitesi Fen Bilimleri Enstitüsü Orman Mühendisliği Anabilim Dalı Yüksek Lisans Tezi.
- Kart N (2002). Emirgan Parkında Kullanıcıların Memnuniyet Derecelerinin Belirlenmesi. Yüksek Lisans Tezi, İstanbul Üniversitesi Fen Bilimleri Enstitüsü, İstanbul.
- Kızılaslan S (2007). Trabzon Kenti Park Ve Bahçelerinin Peyzaj Tasarım Kriterleri Açısından İncelenmesi. Yüksek Lisans Tezi Ankara Üniversitesi Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim Dalı.
- Kızıldere AE (2009). Sanat akımları açısından Türkiye ve diğer ülkelerdeki başlıca parklar (19. yüzyıl ve

- 21. yüzyıl arası). İstanbul Üniversitesi Fen Bilimleri Enstitüsü Peyzaj Mimarlığı Anabilim Dalı.
- Konijnendijk CC, Annerstedt M, Nielsen AB, Maruthaveeran S (2013). Benefits of urban parks. A systematic review. A Report for IFPRA. Copenhagen & Alnarp.
- Mahdavinejad M, Abedi M (2011). Community-oriented landscape design for sustainability in architecture and planning. *Procedia Engineering* **21**: 337-344.
- Manning RE (1999). Crowding in outdoor recreation: Use level, perceived crowding and satisfaction, Studies in Outdoor Recreation: Search and Research for Satisfaction, 2nd edn. Oregon State University Press, Corvallis, 80-121.
- Melikoğlu S (2007). Ankara ili Etimesgut ilçesindeki parklarda bakım çalışmalarının irdelenmesi. Yüksek Lisans Tezi Ankara Üniversitesi Fen Bilimleri Enstitüsü Peyzaj Mimarlığı Anabilim Dalı.
- Oğuz D (1998). Kent Parkı Kavramı Yönünden Ankara Kent Parklarının Kullanım Olgusu Üzerinde Bir Araştırma. Doktora Tezi Ankara Üniversitesi Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim Da-
- Oliver RL (1996). Satisfaction: A behavioral perspective on the consumer, Routledge, p.
- Önder S, Polat AT (2012). Kentsel ve açık ve yeşil alanların kent yaşamındaki yeri ve önemi. *Kentsel Peyzaj Alanlarının Oluşumu ve Bakım Esasları Semineri* (19 Mayıs 2012), Konya.

- Özdamar K (2003). Modern bilimsel araştırma yöntemleri. Eskişehir: Kaan Kitabevi, 116-118.
- Pawinee I, Kardi T, Hokao K (2004). Accessibility and Attractiveness for Public Park Utilization: A Case Study of Saga, Japan.
- Polat AT, Önder S (2004). Kent Parkı Kavramı ve Konya Kenti İçin Bir Kent Parkı Örneği. *Selçuk Tarım Bilimleri Dergisi*. **18** (34): 76-86.
- Tinsley HE, Tinsley DJ, Croskeys CE (2002). Park usage, social milieu, and psychosocial benefits of park use reported by older urban park users from four ethnic groups. *Leisure sciences*. **24** (2): 199-218.
- Uysal M, Eser Z, Birkan I (2002). Measuring Visitor Satisfaction: An Outdoor Recreational Setting. *TTRA's 33rd Annual Conference Proceedings*, June 23-27, Arlington, VA, USA., 279-284.
- Yorulmaz A (2006). Harikalar Diyarı parkının kullanıcı profili ve beklentilerinin belirlenmesi. Yüksek Lisans Tezi, Ankara Üniversitesi Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim Dalı, Ankara.
- Yücel GF, Yıldızcı AC (2006). Kent parkları ile ilgili kalite kriterlerinin oluşturulması. İTÜ Mimarlık Fakültesi, Şehir ve Bölge Planlama Bölümü, **5** (2): 222-232.
- Zaloğlu A (2006). Ankara kent parklarında suyun gösteri elemanı olarak irdelenmesi, Yüksek Lisans Tezi, Ankara Üniversitesi Fen Bilimleri Enstitüsü, Ankara, 1-4.