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## DETERMINING THE FACTORS AFFECTING SOCIAL INTERACTION IN THE PARKS OF BAGHDAD CITY, IRAQ

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Sarah Salih and Sumarni Ismail

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social interaction; open spaces; quantitative survey method; Baghdad; Iraq

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### Abstract

*Since the war in 2003, Baghdad has suffered from different aspects of political, administration, economic ethnic, sectarian, etc. that led to the loss of lives, social capital, destruction of Iraqi infrastructure and important buildings, increased crisis aggravation between different ethnics, as well as the disappearance and destruction of many Baghdad's open spaces, parks, and recreational places. This paper addresses the issue of social interaction in Baghdad city, resulting from the lack of open spaces, parks, and recreational activities. The objective of this paper is to determine the key factors affecting social interaction of Baghdad residents in the parks of the city. This study employed Creswell recommendations (Creswell, 2014) to design the research methodology in general. A quantitative method was adapted to collect and analyse the data of this study by using a survey, i.e. questionnaires, to assess 270 respondents' opinion about the issue of the study. Respondents were selected randomly in a single-stage procedure by using a simplified formula (Yamane, 1973). Closed-ended questions were used to collect the data of the study from the Karkh district in Baghdad city. Findings of this study confirmed that the factors and criteria of the parks are essential means to achieve sound social interaction in Baghdad, in which, the most influencing factors towards Karkhs' parks users are crowding of visitors and noise, followed by availability of high quality diverse activities. The results of this study are a useful reference for urban and landscape planners, architects, social psychologists, the Municipality of Baghdad, and researchers in this field.*

S. Salih & S. Ismail

S. Salih, Doctor of Philosophy Student at Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia, Jalan UPM, Serdang, Selangor, 43400, Malaysia

S. Ismail, Lecturer at Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia, Jalan UPM, Serdang, Selangor, 43400, Malaysia

\*Corresponding Author's email address: [sarah\\_alsaadi1990@yahoo.com](mailto:sarah_alsaadi1990@yahoo.com), [sumarni.upm@gmail.com](mailto:sumarni.upm@gmail.com)

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## INTRODUCTION

Green open spaces allow people to meet on ostensibly neutral grounds in planned and unplanned ways, to interact with others within the context of the whole community, so they can contribute to the cohesion of communities (Holland et al., 2007). Meanwhile, social interaction is an exchange between two or more individuals and is a building block of society; it influences through particular forms of externalities such as reference groups who influence the actions of individuals' preferences, as well as space context (Scheinkman, 2008). Recently, the growth and development of communication technologies have dramatically affected social interaction, where people incorporated these emerging technologies into their social interactions, which led to the loss of touch with social nuances and the characteristics of traditional society (Huang and Deng, 2008). Some technological advances also cause people to become overly stressed, increasingly isolated, and reduce their well-being (Baruah, 2012).

Baghdad is the capital and largest city in Iraq, located along the Tigris River, which runs through Baghdad centre and divides it into two parts: *Karkh* district, which is located on the western bank of the Tigris, and *Rusafa* district that is located on the eastern bank. Since the establishment of Baghdad city by the Abbasid caliph, Al-Mansur (766 AD), it has become a cultural, historical, and social centre for Arab and Islamic civilisation. Baghdad is characterised by gardens, orchards, and cultural and social diversity (Al-Rajhy, 2006). Presently, Baghdad is exposed to multiple changes as a result of political, religious, ethnic, administrative diversities, and technological developments. This also led to the disintegration and change in social interaction, neglecting many recreational facilities and open spaces in Baghdad nowadays (Al-sadi, 2015). Existing parks in Baghdad do not perform their role functionally and effectively, this in turn reflects on residents' social-recreational activities and interaction, which are limited to indoor spaces for a limited number of times only (Salih and Ismail, 2017).

This paper elaborates the problems concerning the lack of social interaction due to issues of open spaces and parks in the city of Baghdad. Thus, the aim of this paper is to identify the appropriate characteristics of successful parks to promote social interaction of residents in Baghdad city, whereby the focus is only on factors of successful parks and open spaces to achieve social interaction in the *Karkh* district, Baghdad. It does not cover social interaction or open spaces issues in general. The study employed a cross-section survey in terms of questionnaires. Therefore, the findings of this paper essentially depended on the integrity and honesty of respondents' answers and the descriptive statistics and frequency as the main method of data analysis according to recommendations of (Creswell, 2014). Nonetheless, there were difficulties in the data collection process, where the general security situation in Baghdad was unstable. Thus, it was difficult to find a suitable respondent number according to individual respondent characteristics. Moreover, it was difficult to obtain accurate sample characteristics information from the survey due to security issues.

## SOCIAL INTERACTION TYPES, FORMS AND FACTORS

Social interaction has the ability to unite and harmonise communities, particularly in the context of multi-cultural diversity. Meanwhile, (Williams, 2006) stated that design approach and design factors are primarily responsible for the strength of social relations in the community. He also mentioned that proximity has great influence on patterns of socialising, and confirmed that users must be involved in the design process of their own social



environment to create a more cohesive social environment. Social relationships vary according to age, gender, and place (space), where, physical spaces e.g. open spaces and parks, and their elements could be a key factor to solve social interaction issues. Talk exchange between two or more people can occur in a public place as a form of communication and social interaction (Holland et al., 2007). They stated that such interactions in public spaces could be influenced by many factors, including how the spaces connect, the design, maintenance, and management of nature, and the built environment. (Huang and Deng, 2008) stated that cultural activities perform a social function by creating cohesiveness in families and communities and by offering a habitual practice that can be passed on from one generation to another. For instance, traditional tea drinking in Taiwan improves people's social relationships in three different aspects: personal social range, social ties, and the cohesion and identification of the family. They also mentioned that social cultural activities can naturally be a part of people's daily lives, as a result of the outstanding effects in socialisation.

On the other hand, modern technologies and social networks have led to the emergence of a certain type of interaction (virtual social interaction) among social networking sites and social media applications. Although social media has led to positive changes in people's interaction methods, it has a dark side as well (Sari, 2008). He also mentioned that social communication via networking sites has led to critical changes in social, cultural, economic, and political communities in various ways. On the surface, it appears that social networking brings people together across the Internet, but in a larger sense, it leads to negative outcomes, some with long-term consequences such as social isolation, and restricts real social cohesion (Scott et al., 2010). They highlighted that hyper-networking is associated with social, mental, psychological, emotional, and physical problems including depression, substance abuse, poor sleep patterns, suicide, poor social interaction, and poor academic performance.

According to (Bekker et al., 2010), interactive play objects contribute in creating and enhancing social interaction between two or more individuals in public spaces. The community (players) in recreational zones (recreational parks) can create a wide range of physical games to be shared and participated as a type of social interaction. (Moffitt, 2017) stated that social interaction includes those acts that people perform towards each other and the responses they give in return, which include a large number of behaviours. In sociology, interaction is usually divided into five categories, namely exchange, competition, cooperation, conflict, and coercion. Social exchange is based on a common interest among individuals, while collaborative interaction (cooperation) could be coerced, voluntary, or unintentional, and any group behaviour is an example of cooperation. Cooperation enables social reality by laying the groundwork for social institutions, organisations, and the entire social system, and without cooperation, no institution beyond the individual would develop. On the other hand, social conflicts affect social interaction of communities, especially the conflicts that result from cultural and social differences in societies. Social competition can also create interaction in communities. Positively, competition may serve as a form of recreation or a challenge provided that it is non-hostile; for instance, sports rivalry can create many forms of interactions between people. (Moffitt, 2017) also mentioned that the process of communication may be nonverbal through people's clothing and style, and gestures and posture (according to the cultural context).



## GREEN OPEN SPACES FOR SOCIAL INTERACTION

The design of open spaces has a great role to lead individuals to these spaces, where they can socialise and mingle with each other. Space design tools can also be used to provide social interaction (Uslu and Gokce, 2010). They stated that complex social diseases could be cured through different house surroundings, parks, and new spatial arrangements. (Kara et al., 2011) stated that parks have crucial roles to develop and enhance cities; they are not only places where people join the nature, but also to communicate and interact with each other. Moreover, they noted that activities and maintenance of parks could be the main factors affecting the quality and conditions of these parks. Therefore, to achieve social interaction, physical space (parks, landscapes, etc.) must be provided. This is in line with (Larson et al., 2014) suggestion that more efforts should be made to promote physical activities in outdoor recreational spaces, which could promote health and well-being.

On the other hand, to increase social interactions in green open spaces, some factors must be considered, e.g. safety and security, traffic restrictions, presence of various activities for all ages, and urban design of the space (Poodeh and Vali, 2014). For a successful public park design, good accessibility and linkage (GAL) should be the main factor in designing a park, followed by sociability (SOC), user and activities (UAC), and degree of comfort and image factors (DCI) (Skip et al., 2014). They also mentioned that park is an important space in the relationship of man and nature to promote physical activities, health behaviour, and community interrelationship, and to increase the value of property. (Mamaghani et al., 2015) stated that specific spaces such as open spaces and parks should be used to overcome the loss of human communication and interaction by implementing the use of interaction design approaches. Moreover, quality nearby recreational area is an important condition for a residential area and its residents as is the importance of easy access to these areas. Inhabitants' satisfaction with the recreational areas, their activities and interaction level within the recreational areas, as well as the time spent in the recreational areas appear to be more relevant to the frequency of visits in these areas (Matthias and Degenhardt, 2015). They also confirmed that with the shift to a service-based society, providing opportunities for outdoor recreation (that enables mental and physiological self-regulation) has become an increasingly important landscape function.

## SOCIAL LIFE, RECREATION AND PARKS IN THE CITY OF BAGHDAD

Since the founding of Baghdad city, a special interest has been given for recreational facilities, open spaces, green areas, and parks, for the reason that Baghdad's name has been accompanied to the names of paradise, garden, and orchard. The tributary of the Tigris River flows into all districts of Baghdad to give it special beauty and splendour. On the other hand, the first zoo in the world was established in 797 AD in Baghdad during the rule of *Harun al-Rashid* (786 - 809) AD, which contained various types of birds, rabbits, fishes, monkeys, lions, etc. Some open spaces were also used to play golf or horsemanship (Al-Samarrai, 2002). The social life in Baghdad city during the Abbasid era (762 - 1258) AD was based on two different social layers; the first layer consisted of caliphs and ministers, who lived a comfortable and luxurious life, whereas the second layer comprised the local people, who lived a simple life with high social interaction, where some poor people shared the same house. However, these various social layers in Baghdad met in the markets, mosques, riverbanks, parks, orchards, and streets. The community of Baghdad also varied in terms of ethnicity and religion, but it was open and amicable, e.g. many Muslim men married Christian women. Baghdad's residents shared important social events together, e.g. Friday prayers,



(holiday) Eid, Ramadan, promenade after (holidays) Eid, weddings, festivals etc. (Al-Rajhy, 2006). Ottoman and British invasions of Iraq (1532 - 1920) AD have created a vast gap between the authority and local people, which led to various crises in Iraq (Al-Wardi, 2007). The period of founding the first Iraqi state in 1920 had a great influence on the Iraqi society, where political awareness, attention to follow the news and newspapers, movement of constitutional claim, national movement, political awareness, and referendum have emerged for the first time in Iraq. The 20<sup>th</sup> century revolution also changed a lot in the culture of Iraqi society, where it became a more coexisting community (Al-Wardi, 2007).

The war in 2003 has led to loss of lives, loss of social capital, and destruction of Iraqi infrastructure. This substantially lowered the quality of life and inability to provide essential services, and rendered state-building activities even more difficult (Ihsanoglu, 2007). Ethnic relations in Iraq were also strained since the last war in 2003, where crisis aggravation among different ethnicities in Iraq led to the decline of interaction among them (Rydgren and Sofi, 2011). Since 2003, the establishment of military-controlled zones, lengthy strips of T-walls, roadblocks, and checkpoints interrupted movement along the arterial roads linking the different areas of Baghdad. Hence, local residents prefer to shop, work, and socialise within their neighbourhood without interacting with other neighbouring areas (IAU et al., 2011). They mentioned that many local open spaces have become dumping sites for garbage or collection areas for sewerage and stagnant water. Recreational places, parks, and activities either are closed or off limits since 2003 (IAU et al., 2011). Responsible authorities of Baghdad city should make more efforts for open spaces and parks construction, maintenance and administration, due to the fact that existing parks in Baghdad do not perform their role effectively, which reflects on residents' life, according to (Rikabi and Ali, 2013) findings. They mentioned that the responsible authorities must provide various facilities in the parks and improve their function and condition. They also confirmed that governmental efforts towards this matter are inadequate due to political and economic issues experienced in the country since 2003.



Figure 1. Neglected Park in *Karkh*, Baghdad, 2012 (Source: Author Records, 2016).

## METHODS

A quantitative method was adopted in this study in terms of a survey by using questionnaires to assess the population's opinion about the factors affecting social interaction of Baghdad residents in open spaces and parks. This paper aims to determine the appropriate characteristics of parks and open spaces to increase social interaction of the residents in Baghdad city. This study employed (Creswell, 2014) recommendations to design the research methodology in general. Closed-ended questions were used as a basic tool to collect data, where the *International Handbook of Survey Methodology* of (Edith et al., 2008) was used to design the questionnaires (closed-ended questions) of this study.

This study used content validity, face validity, and test-retest reliability. After the questionnaire was designed, it was reviewed by specialists to examine and analyse its content to ensure it covered all aspects needed to be measured. Then, it was translated into Arabic from English, and the sample questionnaire was sent to ten respondents who were required to answer the questionnaire twice (the revised second questionnaire was three weeks apart from the first questionnaire). This is to examine its clarity and accuracy and confirm the extent of the questionnaire's validity before applying it to the basic samples. The results were calculated by using Statistical Package for the Social Sciences (SPSS) version 23, and the correlation coefficient (r) value was  $\geq 0.70$ . Therefore, the questionnaire of this study was considered reliable to be used according to the correlation coefficient in the test-retest reliability.

The *Karkh* district in Baghdad city was chosen as a research site with an area about 2,650 km<sup>2</sup>, and it consists of about ten basic sections (neighbourhoods) (Al-Janabi and Ali, 2015). The population of *Karkh* is approximately 800,000 persons, according to the Ministry of Planning of Iraq (2009). Respondents involved in this study were selected by using a simplified formula (Yamane, 1973) to represent the whole *Karkh* district, where  $n$  is the sample size,  $N$  is the population size (800,000), and  $e$  is the level of precision ( $\pm 6\%$ ). Therefore, the number of respondents is 270, selected randomly in a single stage from the specific neighbourhoods. Individual characteristics of respondents varied in terms of age groups (18 - 55), gender, income levels, education, and occupation.

$$n = \frac{N}{1 + N(e)^2}$$

Equation 1. A Simplified Formula for Proportions (Source: Yamane, 1973).

The survey was conducted in a period of two months (May and April of 2016). Based on the returned survey questionnaires, many of the respondents were not willing to provide their personal information or opinions, especially due to the insecurity in Baghdad. Almost all of the respondents refused to be photographed during the survey. The collected survey data was then analysed using a statistical analysis (descriptive statistics and frequency) by SPSS. Firstly, it analysed the respondents' characteristics, which include gender, age, occupation, education level, and income level. The questionnaire format consisted of multiple choices and dichotomous questions. The respondents came from different locations within the ten neighbourhoods such as universities, work sites, streets, and shops. Secondly, it analysed the factors affecting users' interaction and activities in open spaces and parks. Respondents were asked matrix questions (Likert scale) about six factors of open spaces and parks, including: design and image, activities, and quality in terms of availability of various high quality activities, crowds of people and noise, accessibility and linkage, safety and security,



and management and maintenance. These factors have been identified and mentioned in the previous literature section.

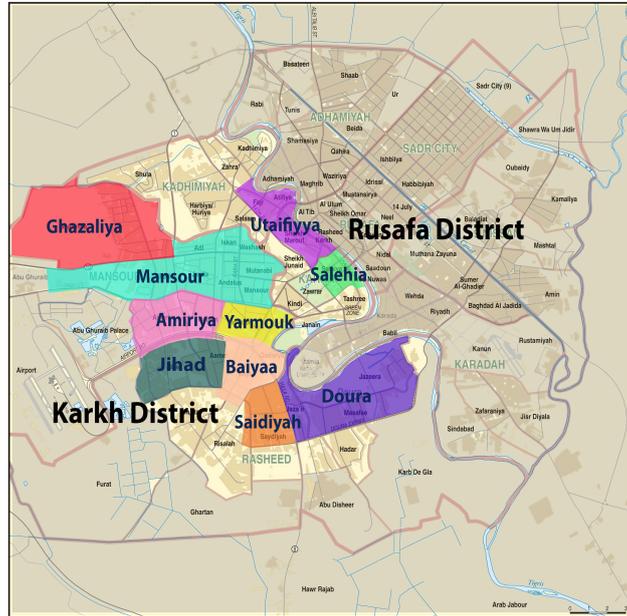


Figure 2. Karkh District in Baghdad City Map (Source: Jabr and Jassem, 2016).

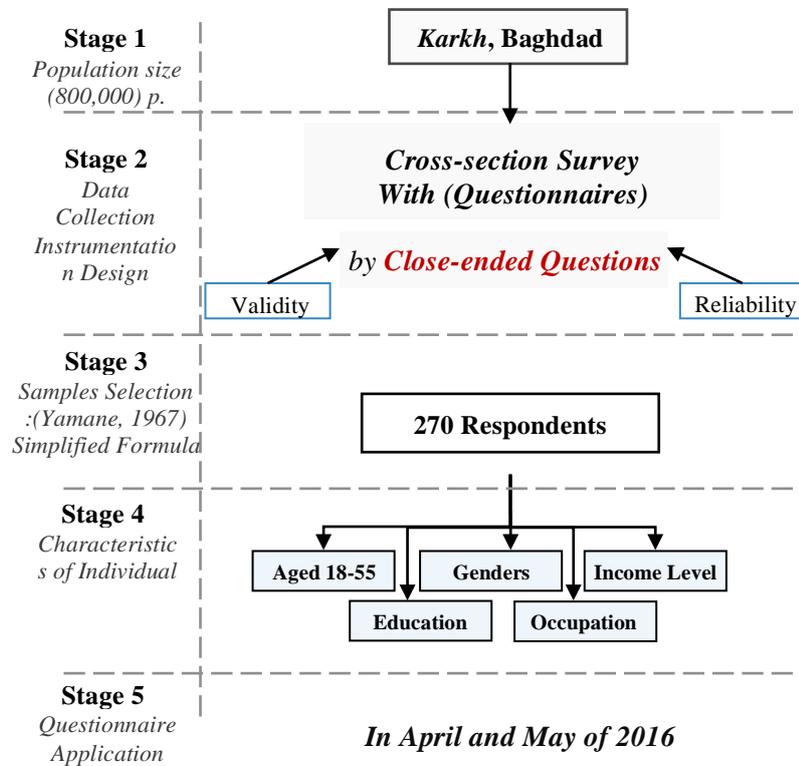


Figure 3. Process of Sample Selecting from the Population of Karkh District (Source: Authors, 2016).

## RESULTS AND DISCUSSION

### Demographic Characteristics

The gender balance of respondents in this study was reasonably fair, with 51.9% female, 47.4% male, and 2 missing answers for the gender criterion. All respondents were found to fall within the age range of 18 to 55 years, where most of the respondents were between 18 to 24 years (41.9%). Meanwhile, only a few respondents were aged between 47 to 55 years (6.3%), as it was very difficult to get respondents within this age group from the selected places for the survey. 25.6% of the respondents were between 25 to 31 years, 14.8% were between the ages of 32 to 38 years, and 11.5% were between 39 to 46 years.

In terms of income, a majority of the respondents (81.1%) were in the middle-income level, 15.2% of them were in the high-income level, and only 3.7% were in the low-income level. Regarding occupation, 49.3% of the respondents were students, 40.4% were employees, while only 8.5% were unemployed.

### Factors Affecting Social Interaction in the Parks

The respondents were asked matrix questions about six factors that would affect the use of parks and open spaces, in order to determine the main factor that affects their use of open spaces and parks in Baghdad. The six factors are design and image, activities, and quality in terms of availability of diverse activities with high quality, accessibility and linkage, crowds of people and noise, safety and security, and management and maintenance. These factors have been identified according to the previous literature and studies.

The mean, median, and mode values of the design and image factor of parks are 1.99, 2.00, and 2, respectively, where 1 refers to "strongly agree", 2 refers to "agree", 3 refers to "undecided", 4 refers to "disagree", and 5 refers to "strongly disagree" (Table 1). A majority of the respondents (54.4%) agreed that design and image is the key factor in *Karkh's* parks to promote social interaction, while only 2.6% showed strong disagreement towards that statement. 27.8% of them strongly agreed, whereas 6.7% of the respondents disagreed (Table 2). The mean, median, and mode values of the availability of high quality diverse activities factor are 1.79, 2.00, and 2, respectively (Table 1). Most respondents (46.3%) agreed that high quality diverse activities in the parks is the key factor to achieve social interaction, while none of them showed strong disagreement. 39.3% of them strongly agreed to that statement, whereas 5.9% disagreed (Table 2).

On the other hand, the mean, median, and mode values of the access and linkage factor are 1.92, 2.00, and 2, respectively (Table 1). A majority of respondents by 50.4% agreed that accessibility and linkage is the key factor of the parks to promote social interaction, and only 0.7% of them showed strong disagreement to that. 30.0% of the respondents strongly agreed, while 4.4% of them disagreed. The mean, median, and mode values of the crowding of visitors and noise factor of the parks are 1.60, 1.00 and 1, respectively. A majority of the respondents (56.3%) strongly agreed that visitors' crowd and noise is a negative factor in the parks that affect social interaction negatively, and there were no respondents who showed strong disagreement to that factor; 31.1% of them agreed, while only 4.8% disagreed (Table 2). The mean, median, and mode values of the safety and security factor are 1.90, 2.00, and 2, respectively (Table 1). 51.5% of the respondents agreed that safety and security is the key factor to achieve social interaction, and none of the respondents showed strong

disagreement to that statement. 29.3% of them strongly agreed and only 1.5% of them disagreed (Table 2). Meanwhile, the mean, median, and mode values of the management and maintenance factor are 2.23, 2.00, and 2, respectively (Table 1). A majority of the respondents by 50.4% agreed that management and maintenance is the key factor to achieve social interaction and only 0.7% strongly disagreed. 21.1% of the respondents strongly agreed, while 14.8% of them disagreed (Table 2).

The influence of these factors on sample characteristics was computed using the correlation coefficient (Spearman's rho) between these variables (Table 3). The correlation analysis shows that there is a correlation between design and image with the gender of respondents (female respondents care about the design of the parks 0.165 times more than male respondents). It also shows a small correlation between activity and quality with gender (male respondents care about the activities of the parks 0.342 times more than females) and age of respondents (older respondents care about the activities of the parks 0.162 times more than young respondents).

There is a less significant correlation between accessibility and linkage with gender (male respondents care about the accessibility and linkage of the parks 0.351 times more than females), crowding and noise factor with gender (female respondents suffer from people crowding and noise 0.162 times more than male respondents). As well as a small correlation between management and maintenance with age (older respondents care about the management and maintenance of the parks 0.380 times more than young respondents), and occupation (if the respondents are student so the interest about the management and maintenance of the parks decreases 0.380 times less than if the respondents are employed and so on). However, Spearman's rho coefficient shows an insignificant relationship between park factors and respondents' characteristics, where respondents' characteristics do not affect the answers and results of the study.

Table 1: Descriptive Statistic: Factors of *Karkh's* Parks to Achieve Social Interaction (Source: Authors, 2016).

		Design & Image	Activities & Quality	Access & Linkage	People Crowding & Noise	Safety & Security	Management & Maintenance
N	Valid	268.00	268.00	267.00	267.00	269.00	269.00
	Missing	2.00	2.00	3.00	3.00	1.00	1.00
Mean		1.99	1.79	1.92	1.60	1.90	2.23
Median		2.00	2.00	2.00	1.00	2.00	2.00
Mode		2.00	2.00	2.00	1.00	2.00	2.00
First Value*		1.00	1.00	1.00	1.00	1.00	1.00
Last Value*		5.00	4.00	5.00	4.00	4.00	5.00

Values are: 1=Strongly agree, 2=Agree, 3=Undecided, 4=Disagree, 5=Strongly disagree



Table 2: Frequency: Factors of *Karkh's* Parks to Achieve Social Interaction (Source: Authors, 2016).

	Likert S.	Design & Image		Activities & Quality		Access & Linkage		People Crowding & Noise		Safety & Security		Management & Maintenance	
		Freq.	Perc.	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.
Valid	1	75	27.8	106	39.3	81	30.0	152.0	56.3	79	29.3	57	21.1
	2	147	54.4	125	46.3	136	50.4	84.0	31.1	139	51.5	136	50.4
	3	21	7.8	21	7.8	36	13.3	18.0	6.7	47	17.4	34	12.6
	4	18	6.7	16	5.9	12	4.4	13.0	4.8	4	1.5	40	14.8
	5	7	2.6	0	0.0	2	0.7	0.0	0.0	0	0.0	2	0.7
	Total		268	99.3	268	99.3	267	98.9	267.0	98.9	269	99.6	269
Missing System		2	0.7	2	0.7	3	1.1	3.0	1.1	1	0.4	1	0.4
Total		270	100.0	270	100.0	270	100.0	270.0	100.0	270	100.0	270	100.0

Values are: 1=Strongly agree, 2=Agree, 3=Undecided, 4=Disagree, 5=Strongly disagree

Table 3: Correlations: Factors of *Karkh's* Parks to Achieve Social Interaction and Sample Characteristics (Source: Authors, 2016).

		Gender	Ages	Income Level	Occupation
		Design and Image	Correlation Coefficient	-.165**	.059
	Sig. (2-tailed)	.007	.334	.897	.542
	N	268	269	269	269
Activity and Quality	Correlation Coefficient	.347**	-.162**	.076	-.090
	Sig. (2-tailed)	.068	.185	.216	.140
	N	268	268	269	269
Accessibility and Linkage	Correlation Coefficient	.351**	-.088	-0.128	-.031
	Sig. (2-tailed)	.457	.151	.036	.614
	N	267	269	267	269
People Crowding and Noise	Correlation Coefficient	-.162**	0.115	-0.050	0.062
	Sig. (2-tailed)	0.008	0.061	0.416	0.316
	N	267	267	267	267
Safety and Security	Correlation Coefficient	.294**	-.138*	-.038	-.019
	Sig. (2-tailed)	.538	.452	.532	.756
	N	269	269	269	269
Management and Maintenance	Correlation Coefficient	0.207	-.380**	-.078	-.128*
	Sig. (2-tailed)	.001	.317	.205	.509
	N	269	269	269	269

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

Therefore, according to the results above, the key factor that affect park users is visitors' crowd and noise, followed by availability of high quality diverse activities, safety and security, good access and linkage to the park, design and image of the park, and good management and maintenance of the park. All the mentioned factors are clearly influential on park visitors in Baghdad city. Based on the respondents' answers, all these factors must be taken into consideration in park construction and maintenance in order to achieve an effective park for social interaction in the *Karkh* district of Baghdad. This is parallel with CAUB's (2005) finding, which confirmed that visitors of *Zawraa* Park in Baghdad city suffered from frequent overcrowding and noise. The community in recreational zones can create and participate in a wide range of activities as a type of social interaction (Bekker et al., 2010). The diversity of

activities could be the main factor affecting park quality and frequency of visits to these parks (Kara et al., 2011). However, good accessibility and linkage (GAL) should be the main factor in designing a successful park in Malaysia (Skip et al., 2014). Furthermore, the key factor of public open spaces could also be safety and security, and management and maintenance (Holland et al, 2007). (Sinou and Kenton, 2013) stated that the key factor for the design of a successful park varies according to the place or location. Meanwhile, a study of (Rikabi and Ali, 2013) found that existing parks in Baghdad did not perform their role effectively, due to administrative negligence and poor organisation. On the other hand, the key factor for the design of a successful park is varying according to the place or location (Sinou and Kenton, 2013).

Table 4: Characteristics to Enhance Social Interaction in the Parks of Baghdad.

Objectives	Results	Findings
<p><u>Main Obj.:</u>                      Factors of parks to achieve social interaction in <i>Karkh</i> district, Baghdad.</p>	<p><u>Support Pervious Literatures:</u>                      Parks with an appropriate factors and characteristics are essential to achieve social interaction.</p>	<p><u>Factors of Karkhs' Parks to achieve social interaction:</u></p> <ol style="list-style-type: none"> <li>1. Avoiding visitor's crowd and noise.</li> <li>2. Diverse high quality activities.</li> <li>3. Safety and security.</li> <li>4. Good accessibility and linkage.</li> <li>5. Design and image.</li> <li>6. Management and maintenance.</li> </ol>

## CONCLUSION

The factors and criteria of the parks are important means to achieve sound social interaction, while the most influencing factor on *Karkh'* park users is crowding of visitors and noise, followed by activities and quality, safety and security, accessibility and linkage, design and image, and management and maintenance, respectively. Therefore, the authorities responsible of Baghdad city need to make more efforts for the construction and maintenance of open spaces and parks in Baghdad according to visitor requirements. This is due to the fact that the current parks in Baghdad are inadequate and unable to accommodate the influx of visitors and the many service problems. Thus, achieving all these factors in the parks of *Karkh* is essential to enhance social interaction, which will lead to enhanced physical, health, mental, social, environmental, and aesthetic aspects for residents and residential areas of the *Karkh*.

The results of this study are a useful reference for urban and landscape planners, architects, social psychologists, the Municipality of Baghdad, and researchers in this field. This research evaluated the effect of factors concerning parks on social interaction, and it found the appropriate and effective factors of parks to enhance social interaction of Baghdad communities. This study also aimed to provide a theoretical foundation to improve and enhance effective social interaction in open spaces. The significance of this study lies in linking social psychology to architectural and landscape researches. Future research can improve this study by employing more members of respondents to achieve the largest possible number of views of the total society, so the results can be more accurate and reliable. Future studies can also ameliorate this study by using other research methods such



as the mixed-method (quantitative and qualitative) to ensure that the data obtained is more accurate and better reflects social interaction in open spaces.

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