



## CONTEXTUAL PREDICTORS OF URBAN PARK UTILISATION AMONG MALAYSIAN ETHNIC GROUPS

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### ABSTRACT

Social interaction among diverse ethnic groups motivates people within communities to visit urban parks inline to achieving social cohesion. In Malaysia for example, different ethnic backgrounds spend their leisure time in urban parks, this is because the trend offer opportunities for social interaction among the users. The perception and requirement of attributes needed varies among the various ethnic groups that includes Malays, Chinese and Indians, this is to assured their full utilization of the parks. This study investigates the urban park attributes of the said three ethnics that encourage the utilization of urban park toward achieving social cohesion. Using survey questionnaire method a total of 274 respondents were sampled at Batu Pahat urban parks in Johor, Malaysia. Afterwards, Structural Equation Modelling (SEM) was used to analyse and validate respondents' perception of urban park utilization. The findings show that aesthetics, safety, lighting, maintenance and cleanliness of the urban parks are the determinant factors that attracted the users to utilise the parks and contribute to achieve a social cohesion.

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## 1. INTRODUCTION

In urban centres, public spaces are considered as places with natural space for people to access and use (Balram and Dragicovic, 2005). Interestingly users play and host visitors from various social and economic backgrounds within a community enabling them to spend their leisure time and interact with one another. Similarly, public spaces play a crucial role in supporting social interactions between people in every society, providing social and psychological services to urban inhabitants thereby improving the quality of life. On the other hand, in spite of its significant roles

played to the social interaction amongst the users, it however promotes multiculturalism among people of diverse social backgrounds. Hence the distribution of public spaces and the ease to access such spaces support the social functions in urban community (Barbosa et al., 2007). The significance of attraction to public spaces could be a good indicator of prospects of social contact among ethnic groups and neighbours that also contribute to make such places liveable and active (Golicnik and Ward Thompson, 2010). The quality of public spaces attracts people to utilize them and also promote socialization among the users. The study aim is to investigate the relationship between physical attributes and utilization of public spaces and its effects on social interaction and cohesion among users in multi-ethnic urban community in Malaysian towns. Thus, people frequently visit public spaces for social pleasure and also to engage in physical activities, which differ across societies. For instance, in Australia most people engage in passive activities in public spaces, as they prefer to be alone sometimes with one or two people. While in China, secluded fields and seating areas were not provided, this is because most Chinese parks have large number of users especially during the weekends (Buchecker, 2009). Nevertheless, Lipton (2004) observed that public space use is part of people's daily life as it provides an avenue for them to exercise and interact with family members or friends.

Furthermore, public spaces provide relief from crowded and stressful urban routines (Chiesura, 2004; Sanesi et al., 2006) thereby enabling visitors to fulfil their social, psychological and physical body needs (Jules, 2008; Engel, 2002). According to Abu Bakar (2002) the British left three historical public parks when leaving Malaysia in the middle of 1957. These parks include; Lake Garden Park in Kuala Lumpur, Penang Botanical Garden in Penang and Taiping Lake Gardens. Parallel to that, (Malek et al., 2012) asserted the importance of understanding the preferences, usage patterns and needs of Malaysian recreation undertakings in these public spaces. Thus, public space typology in the urban community depicts various user needs. Lynch (1984) noted that green wedges, greenbelts, parks, plazas and playfields contribute to the typology of urban public spaces. In Malaysia, public spaces in urban centres exist in the form of parks, squares and playfields.

Interestingly, this research focuses on the properties and attributes of public spaces among three ethnic groups in order to promote social interaction and cohesion in Batu Pahat town, Malaysia. The choice of the three ethnic groups of Malays, Chinese and Indians is to evaluate their level of public spaces' utilization and perception on the public spaces' attributes that attract them to visit the urban parks. In addition, the factors effecting the utilization of public space in Malaysia within different cultural backgrounds were investigated.

## **2. RESEARCH BACKGROUND**

### **2.1 SIGNIFICANCE OF URBAN PARK UTILIZATION**

Public spaces significantly promote interaction between the citizens from different multi-ethnic groups (Lofland, 1998; Fainstein, 2005). Proper utilisation of spaces can lead to more connections with urban park spaces and more opportunities for social interactions. According to Peters et al. (2010) all ethnic groups' culturally feel the need to utilize public spaces for relaxation with a

majority of users utilizing public space with their family members or friends. Thus, people frequently prefer to utilize public spaces in urban community where multi-ethnic groups can be found in order to communicate with others and create social interaction with friends and neighbours (Teig et al., 2009).

Urban public spaces are categorized based on the functions preferred by the urban community and how their leisure time is spent. According to James et al. (2009) public spaces are perceived as important parts of the neighbourhood that provide opportunities for residents to interact with the urban community. Urban parks and playgrounds fulfil a variety of social and psychological needs of the residents that often lead them to communicate in public spaces (Ngesan et al., 2013). In recent times, people seem scared to utilize public spaces in the evening and at night especially when they are unfamiliar with the place and feeling unsafe to interact with other people. Therefore, people need to be encouraged by providing attractive facilities and safety measures in public spaces. Meanwhile, when public spaces become insufficient and unsatisfactory for community interaction, recreational significance of the public space should consider users from diverse background (Oguz, 2000).

## **2.2 SOCIAL INTERACTION IN URBAN PARK**

In sociology, public space provides an avenue for social and physical interactions in a multi-ethnic society. Zhou and Rana (2012) stated that public space offers an opportunity for frequent social interactions among members of the community than other places in the urban centre. In addition, frequent social interactions promote a sense of feeling and acceptance created among individuals and groups from diverse ethnic origin (Putnam, 2000). For social ties among members of a community to develop, people have to be able to meet to create relationships among one another (Völker et al., 2007). Social interaction is an important experience in public space utilisation (Lawson and Liu, 2011) and it occurs within people in friendly or unfriendly ways (Easthope and McNamara, 2013).

Consequently, the level of social interaction in a public space is partly dependent upon how it is designed. Cattell et al., (2008) believe that any design that accommodates an array of activities provide an avenue for people from various socio-cultural background to socialize with one another. The authors maintained that the more the series of activities a public space is provided with, the greater the chances for social interaction to take place among people from diverse backgrounds. For example, Demerath and Levinger (2003) and Hesham et al (2014) reported in their study that chaotic urban public spaces that have lots of activities taking place simultaneously attract more people due to the fact that many people visit and utilize the place. It also provides ease of movement from one activity to another for users' comfort. By engaging in various activities in the public space, people spend their leisure time with others from diverse cultural backgrounds thereby building bond and trust (Swanwick et al., 2003; Huang, 2006; Völker et al., 2007).

## **2.3 THE CONCEPT OF SOCIAL COHESION**

Social cohesion could be described as a resultant effect of interaction among people that make them feel a sense of belonging to the community. However, Buckner (1988) conceptualized

social cohesion as having three dimensions: first, as a sense of community, which implies the feeling of belonging to a certain group. Second, is the attraction with the neighbourhood- a force that persuades its inhabitants to continue to reside in it and third, is the social connection that is explained by the frequency of social ties among neighbours. In effect, social cohesion in a neighbourhood is created when a strong sense of belonging exists among members of the community.

According to Carr and Williams (1993), public spaces in urban centres have the ability of promoting a sense of community within the neighbourhood because they can provide avenues for people to interact with their neighbours in a safe and appealing setting. For example, Shannon et al (2008) reported that families, particularly children were provided with the opportunities to interact with one another in a safe setting and which encouraged them to work and learn from each other. Similarly, East hope and McNamara (2013) found that public spaces and parks are the major locations for social interaction where people easily interact within the neighbourhood. Also, Nash and Christie (2003) noted that social cohesion implies that all social groups have the sense of freedom to use public spaces, free from attack and ensures safety of users. These are common features for effective social cohesion among visitors to public spaces.

## **2.4 SIGNIFICANCE OF PUBLIC SPACE QUALITY**

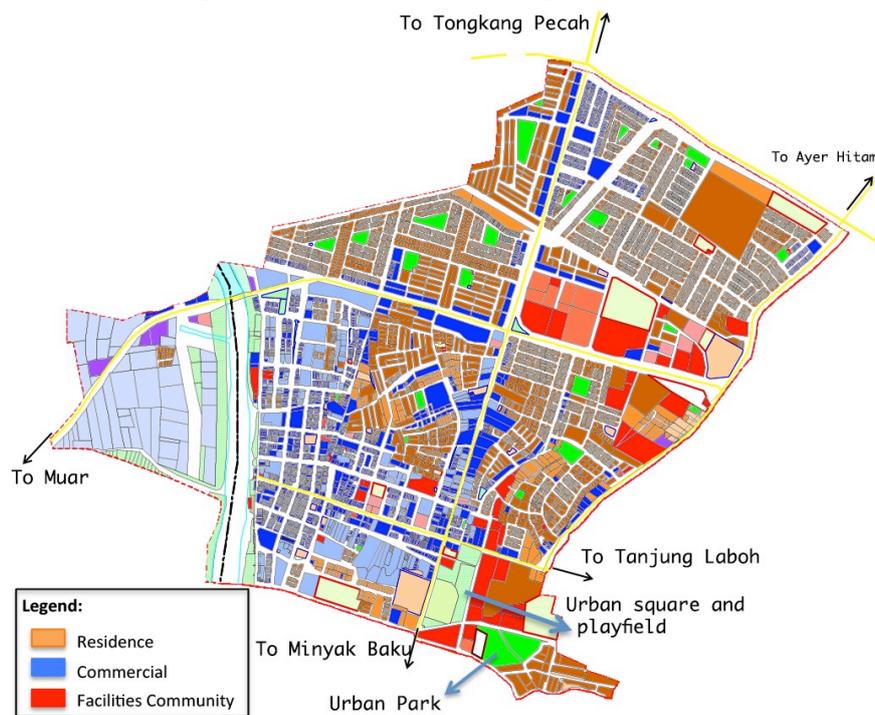
Public space is one of the urban community's strategies used in promoting the quality of life of the people (Chiesura, 2004). Shores and West (2010) noted that large public space with good environmental quality settings attracts more people than those with less environmental quality. There is a correlation between urban comfort and the existence of good environmental quality (Gómez and Jabaloyes, 2001). The quality attribute of the public space environment enhances social interaction (Bedimo-Rung et al., 2005; Semenza, 2003). It also influences the type of social activities people would prefer to engage in which may increase or reduce their rate of visitation (Nordh and Ostby, 2013). Accordingly, Jorgensen et al., (2002) asserts that the quality of public space is significant in determining how residents utilise it. For example, un-kept environment and vandalism of some facilities in a public space could give the impression that it is potentially unsafe for users and thus may decrease the number of visitations (Coles and Bussey, 2000; Williams and Green, 2001; Barbosa et al., 2007). According to Bruse (2007), one of the important elements in urban planning is the promotion of quality of public space through the provision of facilities that will enhance social interaction and relaxation. For instance, provision of shady trees in the public spaces could encourage visitation during hot weather. Similarly, maintenance and cleanliness of a public space are some of the quality attributes that people look out for in making their visitation choice. Cranz (1982) has observed that lack of interest in public space maintenance as a major contributor to the decline in its utilisation.

## **3. METHODOLOGY**

### **3.1 SITE BACKGROUND**

Interestingly, the study selected Batu Pahat town in Johor Bahru as a case study, being the second most developed State in Malaysian Peninsular. Batu Pahat is 240 kilometres away from the

capital city Kuala Lumpur. The town has a population about 400,000 local residents (Kasmon et al., 2014). The town was made up of 37.08% Malays, 60.29% Chinese, and 3% Indians. Urban Park is the largest public space in Batu Pahat, which is visited by its local residents and other people from other parts of the Batu Pahat and beyond. The study selected urban park due to its unique features with two-lake and children playground. As shown in Figure 1, the park is located near the residential areas as well as the commercial areas, and it was selected also based on attributes such as the size, green density and design characteristics which represents elements of attraction to users.



**Figure 1:** Main districts in Land use map of Batu Pahat.  
(Source: Majlis Perbandaran (Urban Planning Dept.) Batu Pahat)

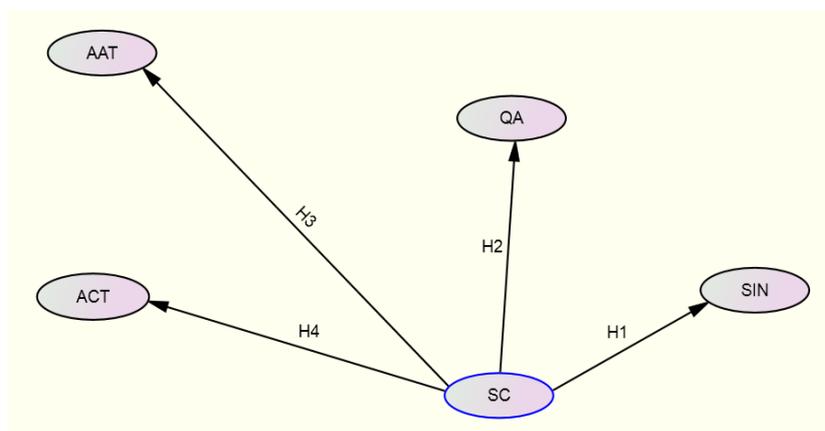
### 3.2 MEASURE AND DIMENSIONS

The phenomenon was measured through factors of social interaction, activities, quality attributes and attributes attraction. The social interaction factor was adopted and operationalized from Holland et al., (2007) and Wagner and Peters (2014). Social interaction refers to the engagement among diverse people and contact of these individual and group that generates unity and harmony in a community. Similarly, activity as a factor was espoused from Gehl and Gemzøe, (2001) and Lawson and Liu (2010) while the factor of attributes attraction was adopted from Basri, (2011) and Mazlina, (2011). Activities involve people's participation in social and physical performances in outdoor spaces. Meanwhile, the attributes of attraction refer to people's perception and meanings given to different places in terms of its scenic beauty. Also, quality of public space attributes that refer to psychosocial benefits of the park was adopted from Tinsley et al. (2002).

Therefore, the influence of urban park attributes on interaction, attribute attraction and activities that lead to social cohesion as examined by this study, the following hypotheses were operationalized for evaluation. The conceptual relationship is thus presented in Figure 2.

- H1. SIN positively influences SC.
- H2. QA positively influences SC.
- H3. AAT positively influences SC.
- H4. ACT positively influences SC.

Where: SIN=Social interaction, ACT = Activities, QA= Quality Attribute, AAT =Attributes attraction, SC= Social cohesion and H= Hypothesis



**Figure 2:** Proposed Research Theoretical Framework.

### 3.3 RESEARCH INSTRUMENT AND DATA COLLECTION FROM PARTICIPANTS

The study adopted quantitative survey method using surveys questionnaire as instrument to obtain information from participants. A total number of 274sets of questionnaire forms comprising of different sections were randomly distributed to elicit data from people who utilize the Urban Parks at different hours of the day particularly during weekends. First section consists of the demographic profile of the respondents and includes gender, age, ethnic background and occupation. The second section of the research instrument elicited data on how people utilize the urban park and those with whom they interact. The third section inquires about activities, particularly most attractive ones people engage in while utilising the urban park. Finally, the fourth section covers visitors’ perception on the quality of urban park attributes that attract them to utilize the available facilities. Thereafter, the study used Structural Equation Model (SEM (AMOS)) to analyse the data retrieved from the questionnaire forms and documented using SPSS software.

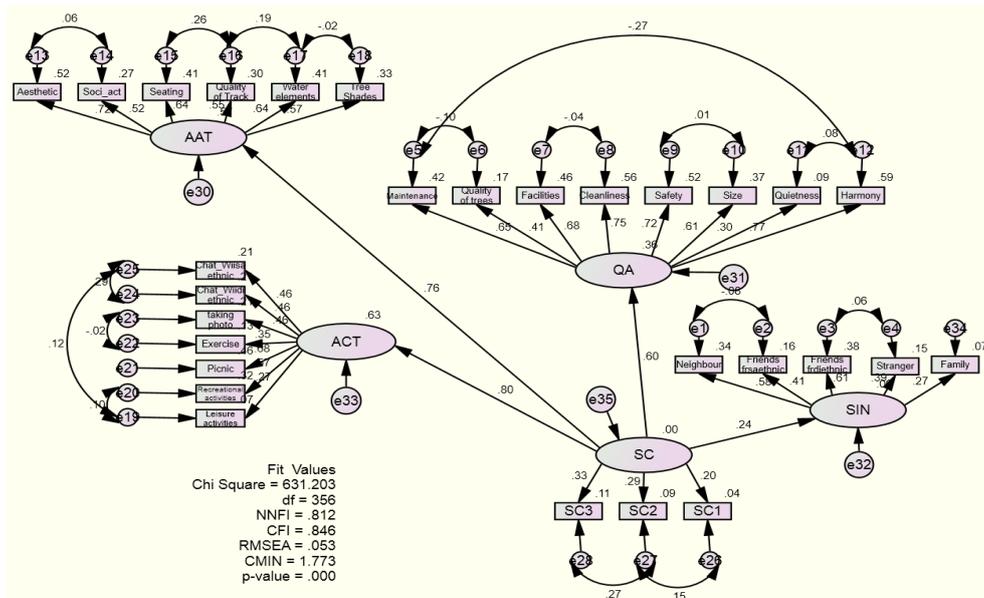
## 4. ANALYSIS AND RESULT

Urban park model was developed based on the hypothetical framework by subjecting the variables measured to psychometric analysis using confirmatory factor analysis (CFA) as proposed by Anderson and Gerbing (1992). Scholars have recommended a threshold for factor loading overriding the value of 0.5 with p-value 0.002has been considered acceptable (Hair et al., 1995). The outcome values are shown in Table 1. Accordingly, Nunnally (1967) recommended an acceptable alpha of  $\geq 0.50$ . However, considering the use of these scales for the first time in a new culture, the cut off value for the alpha coefficient was set at 0.60 for all the scales (self-developed scales). The validity of factors that revealed the model fitness was established and data reliability of items whose path loading were also determined. It is observed that a normalized  $\chi^2$  for the

determined model has a value of 1.773 ( $\chi^2/df=1.773$ , where  $df=356$ ). The result is within the recommended value of less than 3.0 for normalized  $\chi^2$  (Bagozzi and Yi; 1988) indicating a good outcome. Therefore, CFA was used to determine whether the number of factors and the loadings of measured items had conformed to what was expected. The loaded items that are weak on the hypothesized factors were deleted from the scale, thus resulting in a one-dimensional scale. Thus, the comparative fit index (CFI) recorded the value of 0.846, the Non-Normed Fit Index (NNFI) recorded 0.812, which aligned with the marginal recommended, and acceptable value of  $\geq 0.8$  (Chau and Hu, 2001). Next, the root mean square error of approximation (RMSEA) with a fit value of 0.053, which reliably fits the threshold range of 0.08, this is recommended by Browne and Cudeck (1993) that indicates a strong fit. Overall, the output of this analysis indicates that the measurement model displays good degree of fit level and therefore acceptable as the model structure (Figure 3).

**Table 1:** Measurement variance analysis and reliabilities

<b>Factors</b>	<b>Estimates</b>	<b>T-values</b>	<b>Cronbach's Alphas</b>
<b>Social interaction</b>			<b>0.554</b>
Neighbour	0.58	5.364	
Friends from same ethnic	0.41	Constrained	
Friends from different ethnic	0.61	4.120	
Stranger	0.39	3.294	
Family	0.27	3.116	
<b>Activities</b>			<b>0.674</b>
Charting among same ethnic	0.47	3.497	
Charting among different ethnic	0.47	3.324	
Taking photo	0.45	3.299	
Exercise	0.34	3.005	
Picnic	0.69	3.553	
Recreational activities	0.57	3.623	
Leisure activities	0.27	Constrained	
<b>Attribute attraction</b>			<b>0.670</b>
Aesthetics	0.72	Constrained	
Social activities	0.52	7.258	
Seating	0.64	8.443	
Quality of Track	0.55	7.124	
Water elements	0.64	8.181	
Tree Shades	0.57	7.488	
<b>Quality attribute</b>			<b>0.708</b>
Maintenance	0.65	Constrained	
Quality of trees	0.41	5.739	
Facilities	0.68	9.327	
Cleanliness	0.75	10.20	
Safety	0.73	10.05	
Size	0.61	8.541	
Quietness	0.30	4.372	
Harmony	0.77	9.693	
<b>Social Cohesion</b>			<b>0.468</b>
Social cohesion 1	0.20	Constrained	
Social cohesion 2	0.29	4.399	
Social cohesion 3	0.33	4.373	



**Figure 3:** Confirmatory analysis model of urban park utilization in relation to social cohesion

**Table 2:** Summary of the results structural model.

Hypothesis	Hypothesized path	Path coefficient	Results
H1	SIN can positively influence social cohesion in urban park utilisation	0.24	Supported
H2	QA can positively influence social cohesion in urban park utilisation	0.60	Supported
H3	AAT can positively influence social cohesion in urban park utilisation	0.76	Supported
H4	ACT can positively influence social cohesion in urban park utilisation	0.80	Supported

## 5. DISCUSSION

The measured factors of urban park utilization, which includes activities, social interaction, attributes attraction and quality attributes aimed towards achieving social cohesion exhibited different path loadings. The finding suggests that these factors influenced social cohesion on urban park utilization, which was accessed via the Hypotheses H1 to H4 as shown in Figure 2. Path loadings threshold as shown in Table 2 is above 0.2 which is accepted as significant loading (Cohen, 1988, 1992a, 1992b). Overall, social activities and attributes' attraction showed the strongest influence on urban park utilization to social cohesion. The SEM (AMOS) result output of the confirmatory model showed strong and reliable path loadings for the factors as presented in Figure 3. The result shows almost all measuring constructs of urban park utilization having path loadings that ranged from 0.24 to 0.80 on social cohesion. Urban park utilisation showed path loading of 0.80 on activities and 0.76 on attributes attraction. Thus, activities and attributes attraction had stronger path loadings compared to other factors on park utilization. It therefore implies that urban park utilisation effectively reflects activities that attract these multi-ethnic groups to utilise the urban park and promote social interaction while achieving cohesion when they engage in park

activities. The hypotheses H1, H2, H3 and H4 were thus supported by this analysis. For instance, interactions among families and friends of the same ethnic group are improved when they perform activities together within the park. However, low attraction and participation is often witnessed as a result of non-availability of ethnic activities.

In addition, users indicated that water elements that include the two lakes and trees that are located in the urban park provide aesthetics, and are elements that attract them to the park. Accordingly, people are attracted to sit under the trees as they move along the lake. It therefore serves as recreation point of attraction for relaxation and sharing of experiences among the urban park users. Furthermore, the urban park greenery aesthetically attracts other people to feel and associate with the natural environment. Thus, the quality of urban park attributes such as tree shades, shelters, security and safety, cleanliness, comfortable surroundings, park size, good and well-maintained facilities for physical activities influences the way people are attracted and utilize urban park.

The outcome affirms that the multi-ethnic community utilize urban park with preference to engage in various activities, thus a significant factor in influencing people to utilize urban park and promoting social cohesion among them. This finding is consistent with Goudarzi,(2013) who found that people are attracted to utilize public space based on available activities that support social interactions. This means that these activities allow them to interact with one another thereby ensuring social cohesion. In addition, this finding appears to also agree with Cradock et al (2009) who suggested that social cohesion increases with increase in the frequency of engagement in physical and social activities such as exercise, jogging, walking and football or other forms of activities in urban park. It means that the more attracted an individual is to a group the more he engages in activities with the group, also the higher the possibility for social cohesion to occur. In addition, the outcome aligns with Gilliland et al., (2010) which indicated that, the quality of park attributes are significant in attracting users to engage in urban park activities. It implies that urban park attributes influences people decision on urban park utilisation, which determines the occurrence of social cohesion among the users. In sum, it means that both activities and quality of attributes are significance in supporting multi-ethnic interaction and promoting social cohesion and satisfaction among people.

## 6. CONCLUSION

This study discovered the nature of urban park utilization in Batu Pahat town Malaysia, this was designed to create a platform of social cohesion among the diverse ethnic cultures. Thus, to improve the quality of life and urban park visitation of the urban community members at leisure time, a proper utilization of urban park will be observed, by managing some essential facilities that will create a social cohesion among users from different socio-economic backgrounds. Significantly, the study shows the effect of ethnic diversity in promoting urban park utilization is based on the common understanding among multi-ethnic groups. This was achieved from the

physical attributes and people's interaction within the said urban park. Findings reveal the motives for utilizing public spaces among the three ethnic groups includes the need for socialization, quality of the public place, experiencing attractiveness and social interaction thereby generating social cohesion. Interestingly, urban park utilization encouraged exchange and sharing of life experiences, which led to a greater socialization among neighborhoods and friends. Social values through interacting with family and making new friends show users' satisfaction in urban park engagements. Urban park planning and maintenance should therefore account for multi-ethnic communities' needs, this should be done by providing essential and quality facilities that are parts of the key indicators in connecting people together.

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