PREFERENCES FOR USABILITY AT TAMAN TASIK SEREMBAN, MALAYSIA

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ABSTRACT

Urban Park is an important space in a particular city. The development of modern urban park can be traced back to Birkenhead Park in Liverpool, which was designed by Joseph Paxton in 1847. The park aims to bring more public green spaces in the city that can help to minimize the impact of industrialization. The park is becoming very popular for its greenery, recreation activities and a place for solitude. Soon, the idea of urban park was being imitated in other cities around the world. Nevertheless, there are parks that are underutilized or not being used. Malaysia, as a country that started to look into the development of urban park more seriously since 1996, also faces the same issue. Using Taman Tasik Seremban as a site study, 196 park users have been surveyed regarding their needs and preferences for park usability. The survey participants were asked to rate how much they prefer to engage in 35 items related to park activities and from factor analysis, five usability dimensions emerged. They are named passive observation and contemplation, passive observation and socializing, exploration, physical activities and family activities. Ranking of the dimensions by using the mean scores show that the most preferred dimension or activities is related to families and the least preferred activity s is exploration. The findings suggest that the design of an urban park in Malaysian cities, particularly in Seremban, should focus more on providing facilities to the family and social activities rather than individual facilities.

Keywords: *urban park, park usability, users' preferences, urbanization, landscape*

1. INTRODUCTION

It is a pride of a city to have a successful urban park. The big and famous cities such as New York, Boston and London have their own urban park. The park is an image or icon for the cities because often they are landmarks and popular tourist destinations besides being places used by urban dwellers for recreation and leisure. Historically, a concept of modern urban park was introduced in England with the development of Birkenhead Park in Liverpool, which was designed by Joseph Paxton in 1847 (Boults and Sullivan, 2010). The park aims to bring more public green spaces in the city that can help to minimize the impact of industrialization. Birkenhead Park was becoming very popular for its greenery, recreation activities and a place for solitude, thus; soon, the idea of urban park was being imitated in other cities around the world

Urban Park is defined as a designed large green open space in the city. They are designed for people to enjoy tranquil and peaceful environment spaces for people to engage in leisure and recreational activities (Springgate, 2001). Urban parks become popular in the 19th century following the industrial revolution in Europe and North America. Beside recreational values, urban parks also important for urban ecosystem because they provides habitats for wildlife such as birds, squirrels and monkeys. Further, the plants in the parks filter and provide cleaner air for the cities. According to Shahidan et al (2010), plants can filter heat and reduce radiation thus cooling off urban environment. Therefore, urban park due to its conditions that are covered with plants are more likely beneficial to reduce urban heat island effect.

In Malaysia, several cities such as Kuala Lumpur, Taiping and Penang have historic urban parks and the parks were developed during British Colonial Government era notably in the late 1800 and early 1900 (Suhardi, 2002). They were designed not only as a place for recreation and leisure but also to

become a place for plants collection or arboretum. These parks were designed based on "romantic landscape" concept that was popular in England and the United States then. The romantic landscape consists of pond, rolling meadow and extensive natural areas for plants collection. When Malaysia gained its independence in 1957, these parks had become a public park and have been extensively used by the general public until today.

In 1996, Malaysia took a very proactive step by establishing National Landscape Department to oversee public parks development in Malaysia (Ismail, 1997). Together with the state and local authorities, many urban parks have been developed. It is a milestone for Malaysia in order to further the agenda to greening the nation. However, after several years developing parks in Malaysia, one of the main problems arise is the least usability of the park. Why is it happened? According to Drivers, Brown & Peterson (1991), people are going to react if their desire or needs been met for certain objectives and benefits. Therefore, it is important to understand people's preferences for activities in the park because the activities can reveal certain goals and objectives of their users. Therefore, this study aims to examine users' preferences for park activities. It is argued that a failure to meet people's needs is likely to result in the place become unsuccessful and uninteresting.

Hayward (1989) suggests that the needs of people have not been addressed properly in the design of open space and according to Yuen's (1995), problems related to the development of urban open spaces in Singapore are due to;

They [the urban open spaces] were to serve the most direct and explicit needs of the population (as a place to sit, stroll and play) without regard for more eclectic interests. Thus, though individual needs may be different; all groups were given the same bland park design (p.959).

Given the problems above, it is essential to understand human needs in order to plan and design urban parks

2. MEETING HUMAN NEEDS IN URBAN PUBLIC SPACES

In the seminal work of Maslow (1954), it breaks down human needs into six categories: physiological (e.g., food and shelter), safety-security (protection from danger), affection belonging (need to belong to a group or community), esteem (need to be recognized), self-actualization (fulfillment of potential), and cognitive-aesthetic (need to learn and to appreciate beauty). Maslow suggests that if the lower needs cannot be met, the highest needs cannot be reached at all. Physiological needs are the lowest, but the most important, because they are the strongest and serve the very basic needs of humans.

Many designers, including landscape architects, use Maslow's category of human needs to inform their designs. Rutledge (1985) uses Maslow's taxonomy of human needs as a theoretical basis for understanding human needs in designing parks. Maslow's taxonomy is popular because it is straightforward, providing a major list (not sub-categorized), and do not overlap among each other (Rutledge, 1985). However, the list is too general; therefore, careful consideration needs to be made when applying it to park design. Rutledge (1985) suggests that the needs of people must be situation-specific or site-specific. He argues that generalization of needs and their rankings will result in a clash between designers and users and he even suggests that the various user groups for specific places "can be far apart" (p. 66). Rutledge's arguments posit that people's needs vary from place to place so it is important for designers to understand local needs.

From the perspective of leisure research, Drivers, Brown & Peterson (1991), claims that people's needs are derived from motivations to seek benefits for engaging in leisure activities. Based on this motivation theory, Driver and Manfredo (1996) suggest that "recreation activities are a behavioral pursuit that are instrumental to attaining certain psychological and physical goals" (p. 189). Driver further argues that if we know how to attain these psychological and physical goals, we can provide a better planning and management tool for recreation areas. To further understand how to attain psychological and physical goals, Drivers, Brown & Peterson (1991), developed preference scales to identify people's motivations or desired psychological outcomes in engaging in wilderness (including urban wilderness). The scale is known as the Recreation Experience Preference (REP), and it tests a range of 41 motivations, from seeking solitude and engaging in passive activities, to social activities and active recreation. The wide range of items in the scales reflects the acknowledgement of Drivers, Brown & Peterson (1991), that human needs are broad, and that every planning process for leisure activities should be situation-specific, as Rutledge (1985) suggests.

Carr et al (1992) propose that urban public spaces must meet five basic needs of people: comfort, relaxation, passive engagement with the environment, active engagement with the environment, and discovery. They argue that these needs should be "examined not only because they explain the use but also because use is important to success [urban public spaces]" (p. 92). According to Carr and others, comfort is a prerequisite for other needs to be met. As such, it is a basic need, and plays a vital role in determining how long people stay in urban spaces. Comfort can be categorized by its physical, social, or psychological components (Carr et al., 1992). Physical comfort measures how people react physically with an environment and socio-psychological comfort is related closely to how people experience urban spaces. Meanwhile, relaxation relates to a situation where body and mind are at ease. In order for

relaxation to occur, people must be comfortable. Relaxation is a combination of physical and psychological needs. A lot of research about urban spaces cites relaxation as a key factor influencing patron use of spaces. Relaxation occurs when people engage not only in passive areas, but also in active and noisy ones (Carr et al., 1992).

The need for passive engagement is also important. As Carr and others (1992) note, "Passive engagement with the environment could lead to a sense of relaxation but it differs in that it involves the need for an encounter with the setting, albeit without becoming actively involved" (p. 105). Observation is an example of passive engagement activity. Observation includes watching people's activities, watching program activities such as sports, and observing natural environments. On the other hand, active engagement involves contact with people. It includes socializing, in terms of talking with others and engaging in recreational activities (Carr et al., 1992). It is noted that, while senior citizens might be comfortable talking to each other, adults might engage in recreational activities, and children play in a playground.

Discovery is the last need in Carr and others' (1992) list of needs in urban public spaces. It is closely associated with exploration. In their Information Processing Theory, Kaplan and Kaplan (1978) explain that people are information hungry creatures. Therefore, the need for exploration is essential for their survival. In urban open spaces, discovery can be translated to the way that people move through spaces. Good spaces should offer exploration opportunities. Exploration can be enhanced by the physical design of the spaces and their visual vistas. The need for discovery, according to Carr et al., (1992) is important because it relates to human mental and physical development: "Forcing people to remain in a confined, bare setting is a form of torture or punishment" (p. 134).

Carr and others' (1992) list of human needs in an urban area is important, as it provides reasons for human engagements in urban open spaces. Based on Maslow theory of human needs that argues basic needs to be fulfilled first, the list provides a broad understanding of the hierarchy of human needs in urban public spaces. Meeting these needs is not only important for user satisfaction, but also a key factor in determining the success of urban open spaces.

3. METHOD AND RESULTS

The goal of this study is to acquire understanding about people preferences for park usability for park in Malaysia. So to gauge people preferences, the survey questionnaire method was been employed. It is because survey questionnaires can provides insight into people beliefs, attitude, values and behavior (Sommer and Sommer, 1991) over the large sample of size (Mitra and Lankford, 1999). The questionnaire was designed to be as simple as possible, and two variables were measured; peoples' needs and preferred activities as well as participants' background. To measure people preferences for park activities, the participants were asked to rate 35 items related to the influences of park activities to engage people to come to the park by using 5 point Likert scale (1=not important and 5=very important). All the data collected from the surveyed were key-in into Statistical Package for Social Scientist (SPSS) for descriptive and inferential analysis. Taman Tasik Seremban was chosen as site study because it is a mid-size urban park and located in the middle of the city, therefore, it can be assessed easily from many part of the city. Taman Tasik Seremban also poses a characteristic of the romantic landscape that is a popular design choice among landscape architects when designing urban park with a lush greenery, parameter walkways, water bodies and lawn.

3.1 Participants Background

This study surveyed 196 participants over a period of four days in the city of Seremban and Taman Tasik Seremban itself. The sample size of 196 is sufficient to guarantee a sampling error of plus and minus 5%.The sample was stratified according to the ethnicity, gender, age, education, and income of the participants. Please refer to Table 1.

3.2 Preferences for Park Activities

Factor analysis was used to identify park usability preferences categories or factor. The factor analysis employed extraction method by using the Maximum Likehood procedure, and was rotated with the Promax method. The eigenvalue was set at 1.0 and minimum loading factor is set at 0.4. From the analysis, five factors of park usability preferences had emerged.

Factor 1: Passive Observation and Contemplation (mean: 2.53)
This factor refers to people who prefer to engage in passive activities, and involve themselves in observation or contemplation. The psychologically orientated activities in this factor include thinking, visiting the palace, reading and studying, having a picnic, visiting the Chief Minister's residence, and going to the Mosque. Activities such as thinking, reading, and studying have a psychological component that can be seen in the variable groups in this factor. In addition, visiting the palace and Chief Minister's residence can also be psychological in nature, because doing so involves appreciation for beauty and aesthetics as well as relaxation. This finding is parallels the suggestion of Carr and others (1992) that passive activities utilize the features in the site for their physical and aesthetic qualities.

Table 1: Participants distribution

Distributions	Number (n)	Percentage (%)
A. Overall Participants	196	100.0
B. Gender Distribution		
Male	94	48.0
Female	101	51.5
Missing	1	0.5
C. Ethnic Distribution		
Malay	75	38.3
Chinese	61	31.1
Indian	59	30.1
Missing	1	0.5
D. Age Distribution		
18-30 yrs. old	87	61.7
30-40 yrs. old	45	23.0
40-50 yrs. old	15	7.7
50-60 yrs. old	11	5.6
60 and above	2	1.0
Missing	2	1.0
E. Academic Level		
Secondary school	87	44.4
Cert/STPM/Diploma	73	37.2
Bachelor & above	34	17.3
Missing	2	1
F. Income		
Below RM1000	104	53.1
RM1000-3000	74	37.8
RM3000-6000	7	3.6
RM6000 and above	2	1.0
Missing	9	4.6

Factor 2: Passive Observation and Socializing (mean: 3.37)
The variables in this factor are passive activities involving observation and socializing, and include relaxing next to the lakes, being with people with similar interests, spending time with friends, escaping from the stress of the city, and viewing natural scenery. This factor is almost similar to Factor 1, Passive Observation and Contemplation but the difference is that this factor has socializing components. The socializing component involves being with people with similar interests and spending time with friends According to Carr and others (1992), socializing is a part of active engagement: "Active engagement represents a more direct experience with a place and the people within it" (p. 118). Passive and observational activities in this factor include relaxing next to the lakes, escaping from the city, and viewing natural scenery. Like factor 1, this factor also provides a sense of relaxation.

Factor 3: Exploration (mean: 2.49)
The third factors that emerged from factor analysis was named exploration and the items includes learning about trees and shrubs, getting to know the park and its lakes, watching birds, exploring the park, and seeing new things. . Exploration is an active factor that involves learning about the park and surrounding environment. This factor correlates with Carr and others (1992), who identify discovery as a major need for people in the urban areas and explains that exploration in the urban spaces is an "opportunity to observe the different things that people are doing when moving through site" (p. 134)..

Factor 4: Physical Activities (mean: 2.99)
Physical activities is another factors derived from the analysis. Among the items includes in this factors are exercise, play soccer, walking and jogging. Therefore, this factor are relate to active recreation activities by keeping park users in good physical shape, relax physically, and give them the opportunity to observe people. According to Carr and others (1992), adults usually engage in active recreation activities because they rarely utilize recreation as a form of socializing and active recreation is the most important aspect of an urban public space that can be specifically designed for a park.

Factor 5: Family Activities (mean: 3.38)
The last factor emerged from factor analysis was name family activities. The factor relate to the activities that promote family togetherness, encourage families to engage in activities as a unit, and allow parents to see children play. The items includes going to a playground, taking a picnic, and simply walking with one's family. This factor is unique because it involves a specific type of user: a family. This factor addresses parents' need to relax while engaging in active activities with other family members and the passive activity of observing children playing.

3.3 Ranking of the Factors

To have more meaning to the preferences factors that have been derived, it is necessary to rank the factors according to their mean. The ranking indicates that factor 5, Family Activities, followed by factor 2, Passive Observation and Socializing, factor 4, Physical Activities; factor 1, Passive Observation

and Contemplation and last factor 3, Exploration (See Table 2). The result suggests that Family Activities is the most preferred activity among patrons of Seremban Urban Park.

Table 2: Mean Ranking Analysis

Factors	Mean
Family Activities	3.38
Passive, Observation and Socializing	3.37
Physical Activities	2.99
Passive, Observation and Contemplation	2.53
Exploration	2.49

4. DISCUSSION AND CONCLUSION

The findings from the study found that for Taman Tasik Seremban, the potential patrons' preferences for park usability can be classified into 5 categories namely Passive Observation and Contemplation, Passive Observation and Socializing, Exploration, Physical Activities and Family Activities. The classification shows that they are closely in line with Carr et al (1992) suggestion regarding urban open spaces activities. However, it is worth noting that the classifications are not clear cut or discrete. They are overlapping especially in relation to passive, active and social activities. For example, park users whilst engage in passive or active activities can still socializing, a notion that support suggestion made by Carr and others (1992) who argues that socializing with friends and strangers is one of the most popular engagement activities in public spaces In regards to preferences for park usability ranking, it is revealed that family activity and passive observation as well as socializing are rated high. It is important to note that family is the main keywords here meaning in the city of Seremban context, family togetherness is still regarded as an important value.

The results from factor analysis and ranking analysis provide two implications, first, the assertion that social activities is a major force or main driver for parks usability and shall be the key tenet for urban park design. Unconsciously, in the park environment, we tend to socialized and therefore, the social values of the urban park shall be enhanced especially in the multiracial cities like Seremban.. Spaces that can support social activities such as plazas, food courts, group play areas or even benches should be provided at maximum numbers in the urban parks. The second implication is about what kind of social activities that should be provided. The result suggests that social activities within family are the important function that needs to be supported in the urban park. Therefore, among spaces that shall be included in the park design are play areas, playgrounds and picnic areas.

The study about Taman Tasik Seremban users' preferences for park usability provides insight into how people would like to use urban park. Its reveals social and family factors are the most important factors that needs to be considers. In addition, the study findings also pressed a need on research regarding social functions, values and benefits of the urban park, particularly in Seremban. It is posit that as Seremban becoming more urbanized and the city becoming more compact, the social functions of the urban parks will be sought after and important. This study can be regarded as a pilot or pioneer study to understand Malaysian preferences for park usages. Therefore, to make the findings more comprehensive and conclusive, replication of the study needs to be done in several parks throughout Malaysia.

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