

# Evaluating Public Expectation on Physical Factors of Community Center Designs in Kuala Lumpur, Malaysia

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**Abstract.** There is a number of factors have to be considered in designing a public building or public spaces as it involves a wide range of users. In this paper, one of the important public spaces will be discussed, which is community center buildings. Community center as a public space must be seen and treated as a crucial part of the planning process for urban development. The Malaysian government is consistently trying to improve the quality of life with Malaysian's aspiration toward becoming a developed nation. The main objective of this paper is to identify the significant criteria for formulating a design framework for responsive community centers based on community expectation in the Malaysia. To achieve this objective, four community centers in four regions of Kuala Lumpur were used as the case studies in this paper. As one of the key elements in the building design, the physical factors of community centers chose as a main discussion thoroughly in this paper. This research was conducted in Quantitative research orientation, where the data was collected through questionnaire survey and analyzed by using SPSS. The outcome of this paper will be bridging the step toward the development of holistic framework and guideline in designing responsive community center.

Keyword: Expectation, physical, Community Center

## 1. Introduction

There are numbers of criteria in defining the physical characteristic of the building. It includes the ventilation and lighting quality, size and the overall appearance of the buildings. The quality and value of architectural designs have been a matter of debate since the ancient Greeks organised a design competition in 448 BC for the design of a war monument at the Acropolis (Glover, 2004). Nowadays, there are buildings with mixed usage such as: combining commercial, leisure, educational functions and unneeded buildings being converted to appropriate current requirement by changing their use. The method that acting is responded consists of: attention of common-day trend, opinions and political structures, the meaning of historical record, the tendency to present symbolic magnitudes and the vastness of common civil applicable to development (Tunstall, 2012). Although, the company of elements can be the design of one building type, it is important all of these elements work together correctly and expose the true messages.

The quality of the building is a major determinant of the success of the center, has straight relation to the achievement of the community center and a good social life is dependent upon a good building (Mess and King 1947). Juhari, Ali, & Khair, (2012) present arguments to emphasize that, the most public space does not take note of the environmental impact on the behavior of participants when, in reality, the environment will contribute to the number of participants visiting the place. In this way, it is said that the experience and background is a suit guideline for creating new success



buildings in order to avoid the prior mistake. So it will be resulted via understanding the appropriate needs and the aim of each building for using the correct elements carefully. Finally, these can be sorted into the following wide series (Tunstall, G.2012).

## 2. Literature

A community center should be regarded as an essential amenity of normal community living in normal circumstances (Smith, M. K, 2002). As in Malaysia, there are various conceptual definition and function of community center. According to DBKL (2004), The design of the community center provides a hall, which can be used at any time for recreational activities or social gathering. These community centers do not meet with people's aspiration and choices which are being more diverse. Nurul et al (2014) declared that, during her survey observation, the researcher visited the recreational facilities like the community center around the study area for several times and different times. She found the few of them that are provided, but underutilized. This situation has arisen due to inadequate function and facility which are provided in the community center such as children's playground, soccer fields, sport facilities, library, kindergarten and other activities. Beside this, poor accessibility and inappropriate condition of building like ventilation. This is also acknowledged by claims highlighted in the National Urbanization Policy. Utaberta et al, 2010 acknowledged that, the community center of Kuala Lumpur is nothing more than a large empty space, used only for specific purposes like marriage ceremony or birthday ceremony and games like badminton, ping pong; it faces with the shortage of activity which held on at the community center.

There are many factors affecting the efficiency of community center. Whyte (2000) considered that, four key qualities play significant role in community centers as public space efficiency as: being accessible, individual being engaged in activities, the space being comfortable and has a proper vision, and it is a sociable space for people meeting in order to get together and enhance their social interaction.

Abidin et al (2005) presented arguments to emphasize that the life and activity that take place in space specify the usage and aim of making it or function. With this background, the main aspects that influence the use of public space are the form, location, physical and spatial structure as a physical factor of the community center. Smith et al (1997) additionally explained that professional design as physical properties that contribute to the quality of a community center, which play a more influential role in development and usability of successful community center. Jacobs (1961) in many years ago concluded that, the physical quality of public space can encourage people to join in a diversity of activities during the time of day and even at night. This, in turn, creates a safe and pleasurable environment, which functions, on the one hand, to reproduce existing social relations and facilitate community bonding and, on the other hand, to create the conditions to support local economic activity. As such, the economic potential of public space is entwined with and may even be dependent on social and environmental features (Grodach, 2009). In that sense, it concludes the importance of physical factor in determining the efficiency of the community centre.

## 3. Methodology

In this study quantitative methodology was chosen and applied to study the people's evaluation and perception toward using community center. The suitability of quantitative methodology via introducing it as scientific elicit of phenomena related using numerical data was declared by Muijs (2004) and Thomas (2003). Thomas (2003) expressed that; the result of quantitative study can be simply generalized over an enormous population.

A methodological framework is framed the variables and principles which are probed in a systematic manner. This framework contains the variables which must be assayed, the methods used to gather data and analyzing it. The principals being evaluated including the participant's expectation on the accessibility and the location selected for community centers in 4 regions of Kuala Lumpur. Questionnaire survey is used to evaluate the current situation of community centers. This method is suitable because the participants evaluate the current condition of these community centers on why they are not usable for publics.

The questionnaire distributed among 330 participants in four community centers located in Kuala Lumpur. It is Community Centers of Wangsa Maju-Maluri, Community Centers of Sentul-Menjalara, Community Centers of Damansara-Penchala and Community Centers of Bukit Jalil-Seputeh. These places are selected based on functional characteristics that present the current characteristics of Kuala Lumpur community centers as highlighted in DBKL report. The questionnaire was designed based on the following criteria:

- Size of community center
- Appearance
- Form of the building
- Good condition of ventilation

A five-point Likert-type scale was used. Then, the obtained data were accumulated and analyzed by SPSS software. As the main objective focuses on participant's evaluation, the collected data would be shown in numerical and statistical analysis.

#### 4. Result and Analysis

Table 1 shows the mean analysis of the participant's expectation toward physical factor. According to the table in terms of physical factors, 'Good condition of ventilation (mean= 4.51, sd= 0.65)' is received the highest expectancy among the other factors. The second position is allocated to 'Attractive appearance (mean=4.23, sd=0.77. Meanwhile 'Form of the building (mean=34.04, sd=0.88)' and 'Size of the community center (mean=4.04, sd=0.81) are collected the minimum expectancy among others.

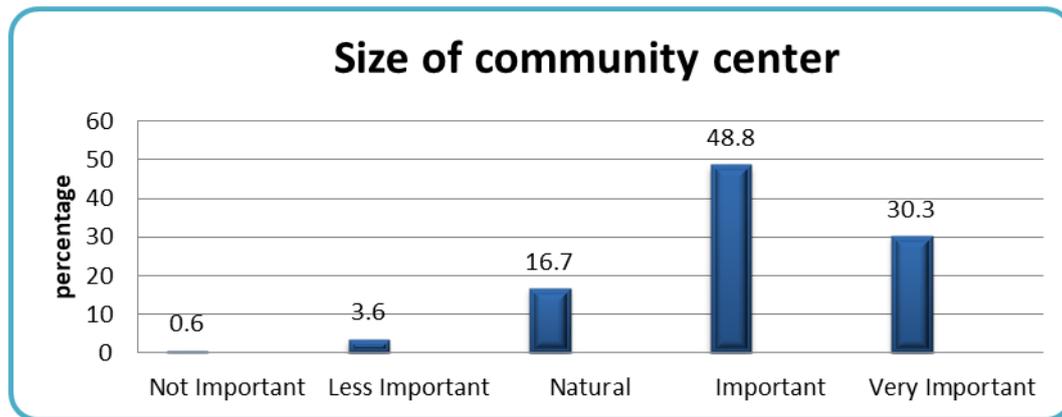
**Table 1:** Descriptive Statistics for physical factor

Variables		Mean	Stdn
Size of community center	330	4.04	.81
Appearance	330	4.23	.77
Form of building	330	4.04	.88
Good condition of ventilation	330	4.51	.65

(1= Not Important, 2= Less Important, 3= Natural, 4= Important, 5= Very Important)

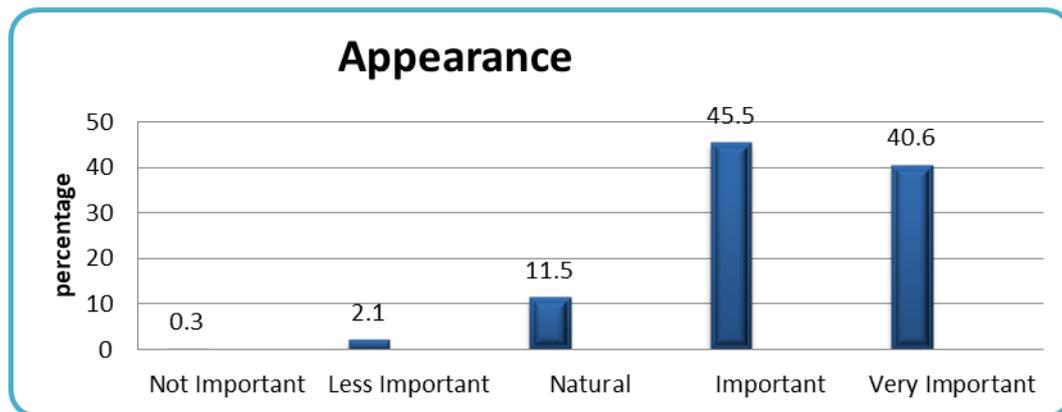
(Source: Field Survey, 2015)

Next figure has given more detail about people's expectancy of the Kuala Lumpur to the size of community center as a building design in below. As can be seen in the figure 1, for 48.8% (n=161) of participants, size of community center had an important position in their mind. For 30.3% (n=100) of people enough space in community center was very important and it was one of the priorities. While 0.6%(n=2) of participants didn't believe in importance of size in community center for increasing usability of it, 3.6% (n=12) of participants had less expectancy toward the importance of size as well. Also, some participants did not offer any idea by 16.7% (n= 35).



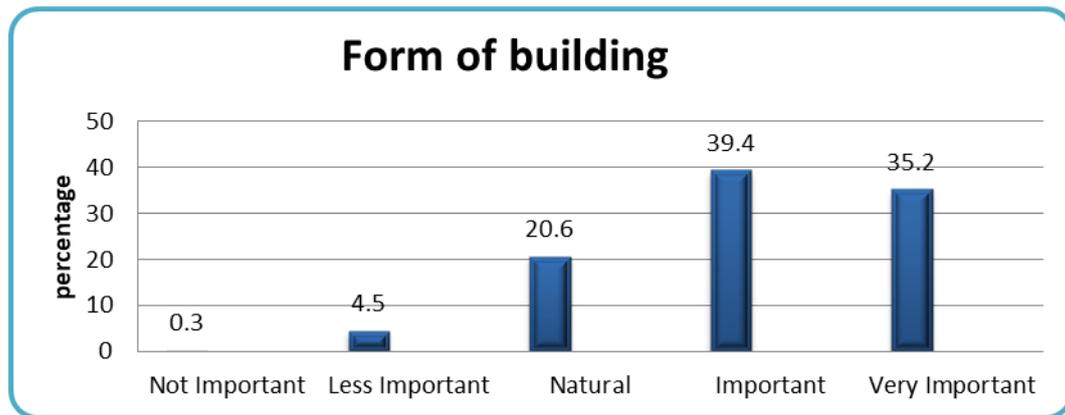
**Figure 1.** Frequency Distribution for Size of Community Center  
(Source: Field Survey, 2015)

The next question and related figure (Figure 2) belong to appearance of the community center. For the majority of participants (45.5%, n=150) the appearance of the building had an important level. It is followed by 40.5% (n=134) of participants, which is the appearance of the community center were very important for them. Meanwhile, only one person (3%) didn't any expectation about the Attraction of elevation as well as for 2.1% (n=7) of people had the minor significance.



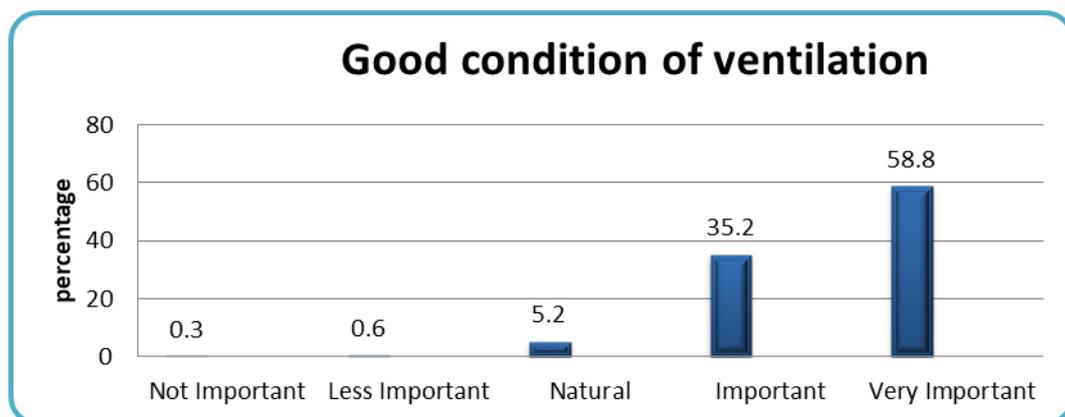
**Figure 2.** Frequency Distribution for Attractive Appearance  
(Source: Field Survey, 2015)

The next question, which people have responded, people's expectation level toward the form of building in figure 3. For only one person(3%) was not important the form of building among participants, for 4.5%(n=150) of them had less significance as well. Moreover, the chart presents about one fifth of participants (n=68) did not give any idea about it. While for 39.4% (n=130) of them were very important the attractive form of building, for 35% (n=116) were less important.



**Figure 3.** Frequency Distribution for Form of Building  
(Source: Field Survey, 2015)

The figure 4 illustrates the expectancy of people toward good condition of ventilation in the community center. From the chart, it is clear that for more than half of people (58.8%, n=194) the suitable ventilation was very important matter. It is the single factor which most of the participants had claim very important among other factors in building condition of the community center. For 35.2% (n=116) of people the good ventilation in inner space was important. Whereas 5.25% (n=17) of participant didn't have any idea. Moreover, for 6% (n=2) of people the condition of ventilation and lighting had less importance on their expected level, for one person (0.3%) was not an important matter as well.



**Figure 4.** Frequency Distribution for Good Condition of Ventilation  
(Source: Field Survey, 2015)

## 5. Conclusion

In terms of building design, for the majority of the participant's expected a good condition of the ventilation as the most importance factors compared to the others, as shown earlier in the analysis part. The quality of the building has straight relation to the achievement of the community center and a good social life is dependent upon a good building design. In community center; the floor space should have sufficient area to incorporate the vast of people, so the floor space and size of each space play significant role in community center. Another factor needs to consider is the influence of building microclimate. Air conditioning and its standards play a significant role in providing acceptable building in providing thermal comfort for the. Effects of lighting in a public building could, in principle, occur at multiple levels: the perceptual/cognitive level (i.e., the level of how different aspects of the space are perceived), the emotional level (i.e., how people affectively respond to the space) and the behavioural level (i.e., how participant behave in relation to the public building

environment)(Quartier, Vanrie, & Van Cleempoel, 2014). Ventilation and lighting are two components which should be considered in the acceptable community center and they offer utilization of natural source can be a good strategy. The previous researchers presented arguments to emphasize the appearance of building especially in a public building. They mentioned that, physical attractiveness as an appearance consideration of a public building is one of the factors which influence the participant's welcome and affects its users. Each building plays significant role in making interesting and enjoyable spaces. For example, the fabric of the building, form of building should be attractive, flexible enough to encourage a variety of participation. Enhancing the building design can be one of important factors which should be considered in Malaysian community centers.

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