



Accessible Built Environment for People of Disabilities at Mosque: Universal Design

Farah Nuratiqah Rusli, Md Azree Othuman Mydin

People with disabilities (PwDs) face challenges which effect on their capability to complete everyday activities such as moving around, communicating and fulfilling social roles and the social participation assumes individuals with disabilities live within their community and interact with others. In the right of person with disability have been evidently specified in Person With Disability Act 2008 which its stated that it is oblige to recognize the interaction with the disable which hinders their full effective participation in society on equal basis with person without disabilities, and also to value theirs involvement to the community and society. This paper will present the component of universal design in the context of mosque and review some of the legislation and standards related to design of facilities for PwD's at mosque. There is a positive development in terms of public awareness on access and facilities for PwDs in Malaysia even though the accurate understanding of universal design theory is still low among Malaysian society. Some people have misunderstood that universal design is exclusively caters the needs of PwDs access and facilities in the built environment

Keywords: *universal design, facilities, mosque, disabled person*

1. Introduction

According to the Persons with Disabilities Act (2008), persons with disabilities shall have the right to access and use public facilities, amenities, services and buildings open or provided to the public on equal basis with persons without disabilities, but subject to the existence or emergence of such situations that may endanger the safety of persons with disabilities. The classification of disabled people is divided into four categories: visual disabilities, hearing disabilities, physical disabilities, and mental disabilities, but in this case, the study focused on three major problems which were visual, hearing and physical disabilities [1]. PwDs are people with a physical, hearing or sight impairment or any combination of thereof,

which affects their mobility to their use in the buildings. PWDs also require special facilities due to limited physical or mental capabilities since birth, or the outcome of accident or disease. PWDs can be classified into four categories which are visual disabilities, hearing disabilities, physical disabilities, and mental disabilities. Typically, people with hearing problems face problems in communication with the public, since most of the population lack understanding of sign language. They also run into difficulties when using public facilities in institutions such as mosques. The study on public facilities provided by the authorities responsible must be studied to ensure that social welfares are provided to the disabled community [2]. PWDs Muslims have expressed their frustration and dilemma in visiting the main mosque throughout Malaysia and in Kuala Lumpur. From a local newspaper, they reported that PWDs also have the intention and desire of wanting to go to mosques to perform their congregational prayer together with other Muslims, but when the mosque or the destination facility does not provide good infrastructure or more or less an accessible environment for PWDs it made their trip to the mosque difficult and depressing [3]. Figure 1 shows the 7 principles of Universal Design

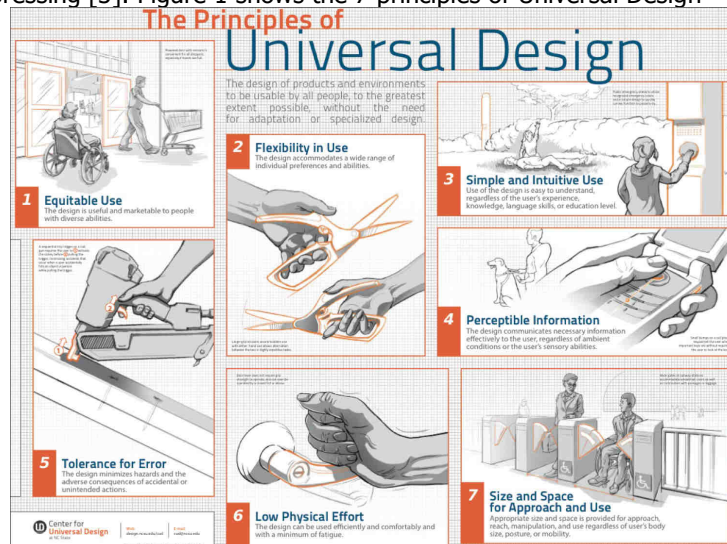


Figure 1. Seven principles of Universal Design [3]

2. Universal design

The universal design's objective is to not demystify people's impairment, but rather to avoid such attention to their impairments and minimize public tendency to 'social ostracism' [4]. It is essential to adapt universal design principles in Malaysian accessibility system so that this nation is in line with other developed countries which provide accessible technologies that efficiently cater the need of all range of users. Figure 2 shows the activities in realizing universal design.

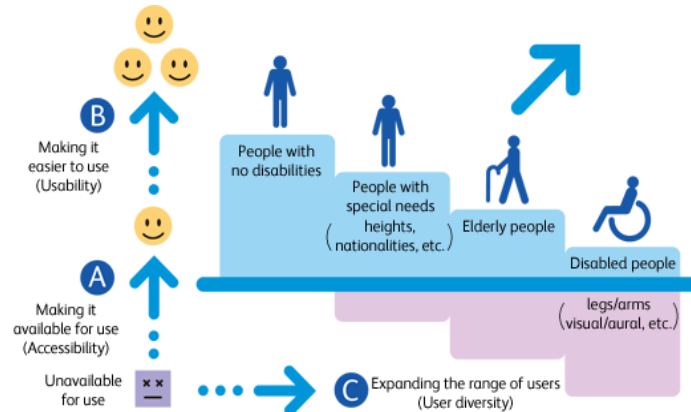


Figure 2. Activities of Universal Design

Rahim and Abdullah aware that in many developing countries, the awareness and inclusion of universal design is still in its initial stage where the cities' authorities have not fully enforced the requirement of providing access to PWDs in the built environment, including Malaysia [5]. However, there is a positive development in terms of public awareness on access and facilities for PWDs in Malaysia even though the accurate understanding of universal design theory is still low among Malaysian society. Some people have misunderstood that universal design is exclusively caters the needs of PWDs access and facilities in the built environment [6]. It should be pointed out that there is a constructive growth in terms of public consciousness on access and facilities for PWDs in many countries even though the precise indulgent of universal design theory is still low among the society. Some people have misinterpreted that universal design is completely caters the requirements of PWDs access and facilities in the built environment.

3. Accessibility

Accessibility of built environment in Malaysia has been an ongoing issue as legislation implementation and enforcement for PWDs accessibility are not well integrated and implemented by Local Government in Government buildings, Public buildings and public spaces. Accessibility in the built environment is in line with Universal Design principles to determine the minimum design requirements for PWDs. Introduction of Malaysian Standard started in 1990 but it was not acknowledged until the establishment of PWDs Act in 2008 and this impacted the slow pace of accessibility awareness and also design implementation in development despite of the massive urban development happening in Major cities in Malaysia currently [7]. Malaysian current disability and accessibility system has shown many improvements since last decades, namely by newly enacted regulations. On November 2001 for instance, the Ministry of Human Resources has established the

Code of Practice of Employment of Disabled Person in Private Sector to increase job opportunities for PWD [8]. Malaysia has also established the first right-based legislation for people with disabilities, entitled Persons with Disabilities Act in 2008.

With the enforcement of this Act, government wishes to provide PWD with better public transport facility, amenities and services, better health, education, information and technology, habilitation and rehabilitation, employment opportunities, as well as improved access to sports, leisure and cultural life activities [9]. In addition, some of the modifications are not correctly built according to the codes; therefore they are risky to the users. For examples, the disabled toilet doors that are supposed to open to the outside are mistakenly installed the other way around, and ramps are built too steep, which could be dangerous to the users especially person on a wheelchair [10]. Other than the weak law enforcement and negative public response, Malaysian accessibility system also needs to be refined due to the increasing number of registered PWD in Malaysia.

The lack of access creates physical barriers that burden the PWDs, the temporarily ambulant disabled and the elderly. These barriers eventually discouraged them to visit a mosque for prayers and other activities related to the mosque and the mosque compound as they lack the accessibility to continuity, especially from the parking area, the entrance, the ablution area, toilets and finally to reach the prayer hall. Accessibility of the built environment in Malaysia has been an ongoing issue as legislation implementation and enforcement for PWDs accessibility are not well integrated and implemented by the Local Government in government buildings, public buildings and public spaces. Accessibility in the built environment is in line with Universal Design principles to determine the minimum design requirements for PWDs. The introduction of Malaysian Standard started in 1990 but it was not acknowledged until the establishment of PWDs Act in 2008 and this impacted the slow pace of accessibility awareness and also design implementation in development despite of the massive urban development happening in Major cities in Malaysia currently [11].

4. Facilities

The importance of providing accessible toilets and accessible ablution areas in Masjid is also a part of Islamic virtue as these areas are provision places of purifying one self. As Muslims are encouraged to attend congregational prayers for all five praying times besides doing 'ikhtiqaf' and 'musafir', making Masjid are one of the most visited and used places at any time of the day and people tend to use the toilets and ablution area. To support the overflowing of worshippers during congregational prayers especially Friday prayers, most Mosque have provided sufficient large areas for ablution and toilets. It is understandable for architects to design Masjid' ablution area and toilets to be situated at ground level or one level under the prayer hall, and this is because to cater large usage capacity, space zoning and ease of cleaning purposes for the prayer hall [12]. Kadir and Jamaludin

discover that the visual impaired emphasize on the design of guiding blocks, tactile direction or warning indication to facilities in the building, and signage of the building. The hearing impaired focus on the attitude of front-liner staff and signage while the wheelchair-bound emphasize on high gradients or level changes, ramp, barriers in front of ablution faucets, and size of the door and furniture layout in PWDs restroom.

5. Legislation and Standards

According to the "Laws of Malaysia" online version of updated text of reprint Act 685 persons with disabilities act 2008 as at 1 July 2014 Part IV; Promotion and development of the quality of life and well-being of persons with disabilities; Chapter I; Accessibility and Access to public facilities, amenities, services, and buildings mentioned that 26. (1) Persons with disabilities shall have the right to access to and use of, public facilities, amenities, services and buildings open or provided to the public on an equal basis with persons without disabilities, but subject to the existence or emergence of such situations that may endanger the safety of persons with disabilities. (2) For the purposes of subsection (1), the Government and the providers of such public facilities, amenities, services and buildings shall give appropriate consideration and take necessary measures to ensure that such public facilities, amenities, services and buildings and the improvement of the equipment related there to conform to universal design in order to facilitate their access and use by persons with disabilities.

In addition to Malaysian Standards, a universal design was also used as an evaluation instrument for this research because it covers a broader range of users. It is also a more cost-effective way in providing a barrier free environment compared to the traditional accessible design which focuses merely on the disabled group. The universal design's objective is to not demystify people's impairment, but rather to avoid such attention to their impairments and minimize the public's tendency to 'social ostracism' [13]. It is essential to adapt universally designed principles in the Malaysian accessibility system so that this nation is in line with other developed countries which provide accessible technologies that efficiently cater to the needs of all ranges of users [14].

The awareness understanding the access matter or gap may be reduced or conquered through a universal design in terms of products or furniture design, the built environments settings, and measures of adaption and upgrades according to the Persons With Disabilities Act 2008, Uniform Buildings By-Laws and related Malaysian Standards documents such as MS 1184: 2002 Code of Practice on Access for Disabled Persons to Public Buildings (First Revision); MS 1331: 2003 Code of Practice for Access of Disabled Persons Outside Buildings (First Revision); and MS 2015: Public Toilet, PART 1 (2006): Minimum Design Criteria [15]. In this research study, it was based on the Malaysian Standard document which is MS 1184:2014 Code of Practice on Access for Disabled Persons to Public Buildings [16].

The objective of all the standards is "to ensure that persons with disabilities in Malaysia have the same rights to equality before the law as the rest of the community in the country; to eliminate, as far as possible, discrimination against persons on the ground of disability in various areas of life; and to promote recognition and acceptance within the community of the principle that persons with disabilities be afforded equal opportunities and full participation to enable them to live as a rightful citizen of the country [17]. The MS caters to wheelchairs users, blind people and deaf people and the building plans submitted to the local authority after the date of gazetting of the MS should comply with it [18].

6. Responsibility

The responsibility of the society and government in providing equal opportunities for all citizens to participate in economic and social interactions is inevitable. Next, built environment is based on the context for human activities with interactions and it must support their freedom and become free of any barriers. In addition, all other public areas such as the mosque's buildings, the prominent community center in Muslims' daily life need to provide full access to the users in their different level of abilities to facilitate their ease of use. At this point of time, available guidelines and regulations in support of accessibility consideration are only limited to the Malaysian Standard legislation. Therefore, a possible step of implementation of the present standards and universal design code of practice is necessary for Malaysian mosques to provide an accessible structure. Moreover, accurate studies should be conducted for adaptation and specialization of legislation to be applied in mosque buildings [19].

Architects, designers, management, and caretakers of the mosque should offer equitably and protective treatment of the rights of every individual, regardless of their physical ability or disability as it is the cornerstone of equality within the Muslim society. The act of saving or protecting people from harm and loss is greatly pleased by God, no matter how small the contribution is towards other people. It is the act of considering about the difficulties faced by others and also the act of providing stress-free and innocuous access for the general public, in this case by the mosque [20].

7. Conclusion

This paper has presented the aspect of universal design in the context of mosque and had reviewed some of the legislation and standards related to design of facilities for PwD's at mosque. It can be concluded that there is a positive development in terms of public awareness on access and facilities for PWDs in Malaysia even though the accurate understanding of universal design theory is still low among Malaysian society. Some people have misunderstood that universal design is exclusively caters the needs of PWDs access and facilities in the built environ-

ment. The accountability of the public and government in providing alike chances for all peoples to partake in economic and social connections is inescapable. a universal design was also used as an evaluation instrument for this research because it covers a broader range of users. It is also a more cost-effective way in providing a barrier free environment compared to the traditional accessible design which focuses merely on the disabled group. The universal design's objective is to not demystify people's impairment, but rather to avoid such attention to their impairments and minimize the public's tendency to social shunning. Next, built environment is based on the context for human activities with interactions and it must support their freedom and become free of any barriers. In addition, all other public areas such as the mosque's buildings, the prominent community center in Muslims' daily life need to provide full access to the users in their different level of abilities to facilitate their ease of use. At this point of time, available guidelines and regulations in support of accessibility consideration are only limited to the Malaysian Standard legislation. Therefore, a possible step of implementation of the present standards and universal design code of practice is necessary for Malaysian mosques to provide an accessible structure. Moreover, accurate studies should be conducted for adaptation and specialization of legislation to be applied in mosque buildings.

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Addresses:

- Farah Nuratiqah Rusli, Final Year Student of Building Surveying Program, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, farah27395@gmail.com
- Sr Dr Md Azree Othuman Mydin, Senior Lecturer, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, azree@usm.my