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بِوَيْبَرِضِيَّتِي إِسْلَامًا أَنْبَارًا يَجْنِبًا مِلَّةِيْنَا

A STUDY ON OUTDOOR ACCESSIBILITY IN
RECREATIONAL AREAS FOR PERSONS WITH
DISABILITIES

BY

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A thesis submitted in fulfilment of the requirement
for the degree of Master of Science
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ABSTRACT

This study puts high concern on the persons with disabilities' (PwDs) access towards outdoor environment, their movements in parks, public spaces, utilization of outdoor facilities and the surrounding environment. The study will provide understanding upon the needs of the persons with disabilities in order to access the outdoor public areas with minimal barriers. There are a number of issues regarding lack of facilities in providing a user-friendly environment for the PwDs. These issues have been raised by various societies of the disabled persons especially from the group of hearing impaired persons, visual impaired persons, and the wheelchair users, as they need to access to spaces such as recreational areas, without any obstructions. Landscape elements, hardscape, street furniture, public facilities, gardens, open spaces and courtyards are made for the people to utilize, which also include the disabled person. However, it seems like the accessibility for this category of people is less considered by the authority, environmental designers, architects and other related parties in providing and designing a new space, building and environment. This research aims to investigate the character of outdoor public spaces that contribute to the accessibility and safety of the PwDs in recreational areas. With the case studies of Kuching Waterfront, in Sarawak and Taman Rekreasi Kiara in Kuala Lumpur, the methods applied include studies on previous researches on disabled person's accessibility, access audit exercise in two case study areas, observation and in depth interview with the disabled persons, as well as the caretakers of the disabled persons. It is hoped that information gained will indicate the level of accessibility in recreational areas in Malaysia, in general. It is also hoped that the research conducted can somehow benefit everybody from all walks of life as well as generating more ideas for the purpose of improving the recreational activities and accessibility for the PwDs.

ملخص البحث

تتم هذه الدراسة اهتماماً بالغاً بالمعوقين، ووصولهم نحو البيئة الخارجية، وحركاتهم في الحدائق والأماكن العامة، والاستفادة من التسهيلات والبيئة المحيطة بهم. وتسعى الدراسة إلى فهم احتياجات المعوقين من أجل وصولهم إلى الأماكن الخارجية العامة مع الحد الأدنى الممكن من الحواجز. هناك عددٌ من القضايا المتعلقة بقلّة التسهيلات في إجادّة البيئة الجيدة للمعوقين. وقد أثّرت هذه القضايا من قبل جمعيات المعوقين المختلفة، وخاصة الجمعية التي تهتمُّ بأشخاص ضعاف السمع، وأشخاص ضعاف البصر، ومستخدمي الكراسي المتحركة، وذلك لأنهم يحتاجون إلى الوصول إلى الأماكن الترفيهية بدون أية عوائق. إنّ عناصر المناظر الطبيعية، والشوارع العامة، وأثاث الشوارع، والتسهيلات العامة، والحدائق، والبحات صُممت لإفادة الناس، ويشمل شخصاً مُعاقاً. ومع ذلك، يبدو أنّ الاهتمام بهذه الفئة من الناس قليلٌ من جانب السلطة، ومصممي البيئة، والمهندسين المعماريين، والأطراف المعنية الأخرى في تصميم المساحة الجديدة، والمبنى، والبيئة. وتهدف هذه الدراسة إلى فحص طبيعة البيئة الخارجية العامة التي تسهم في وصول المعوقين وسلامتهم في الأماكن الترفيهية. ومع دراسة نموذجية في كوتشينغ واتفرون بولاية سراواك (Kuching Waterfront, Sarawak) وحديقة كيارا بكوالا لمبور (Taman Rekreasi Kiara, Kuala Lumpur)، إنّ المناهج المطبقة تشمل الدراسات السابقة عن المعوقين، ووصول عملية الحسابات في الدراسات النموذجية، والمراقبة، والمقابلة الشخصية مع المعوقين ومقدمي الرعاية لهم. ومن المؤمل أنّ المعلومات المكتسبة ستبيّن مستوى الوصول إلى الأماكن الترفيهية لدى المعوقين في ماليزيا عامةً. ولعلّ أنّ تُفيد هذه الدراسة الناس جميعاً، فضلاً عن توليد الأفكار البناءة لغرض تحسين الأنشطة الترفيهية والتسهيلات للمعوقين.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms me to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Built Environment).

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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Signature.....

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**A STUDY ON OUTDOOR ACCESSIBILITY IN RECREATIONAL
AREAS FOR PERSONS WITH DISABILITIES.**

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CHAPTER 1

INTRODUCTION

1.1 RESEARCH BACKGROUND

Today's modern cities and towns may be convenient and fascinating places to live and work, offering a great variety of opportunities and experiences. However, for the people with disabilities (PwDs), such built environments are full of uncertainties, anxieties and dangers. Disabled people encounter many obstacles that prevent them from moving freely and safely.

Concerns on PwDs have been stressed since decades in the developed and western countries pertaining to the issues of accessibility that PwDs are currently facing. Countries like the United Kingdom, Ireland, United States of America, Australia, Canada and many other developed countries have put high concern on the issues faced by PwDs and are quite advanced in legislating PwDs acts and guidelines, policies and at the same time offering accessible facilities either inside or outside buildings.

Checklist and index of accessibility of buildings have been introduced in developed countries to ensure that the public buildings are accessible and can be reached easily by PwDs. For example, the American with Disabilities Act (ADA) in August 1995 has introduced the Americans with Disabilities Act Checklist for Readily Achievable Barrier Removal in order to identify accessibility problems and solutions with the purpose to make a building which meet the obligations under the ADA (Checklist for Existing Facilities, 1995). In the United Kingdom, building plans submission must always comply with the requirement that fulfills the PwDs needs, furthermore the establishment of the Disabled Discrimination Act (DDA) in 1995 introduces new laws aimed at ending the discrimination that many PwDs face (Lacey,

1995). London, for example has introduced accessible buses for easy access by the PwDs, and it has one of the largest fleets of accessible buses in the world (Oyston, 2010). All these measures were taken by authorities in the developed countries in order to ensure the provision of accessible environment for PwDs are to be taken into considerations in creating new spaces, buildings, public facilities and other basic needs for human life.

In Malaysia, the Persons with Disabilities Act 2008 has been tabled and approved in the parliament of Malaysia. It is meant to provide the registration, protection, rehabilitation, development and wellbeing for PwDs in this country (Persons with Disabilities Act, PwDA, 2008). According to the act, in the matters of accessibility in Malaysia, PwDs have the rights to access to and use of public facilities, amenities, services and buildings, public transports facilities, education, employment, information and communication technology (ICT), cultural life, recreation, leisure and sports. Thus, since 2008, concerns and matters on PwDs accessibility have been placed into the attention of various authorities, government agencies, non-governmental organizations (NGOs), as well as professions such as architects and environmental designers. As the number of PwDs is increasing yearly, the Malaysian government is now enforcing and legislating the PwDs Act 2008 to be applied throughout the country in terms providing good access to public buildings, transportations, and other public facilities and amenities (PwDA, 2008).

In Malaysia, the concern on this matter is increasing. However, public spaces such as recreational areas are still left behind in the consideration of facilitating PwDs access to the space. In recreational areas such as waterfronts and community parks, PwDs still face accessibility issues such as inaccessible facilities (public toilet, public telephone, praying room, food stalls, shops/kiosks, resting shelter and walkway). In addition, in recreational areas, there are issues such as misuse of accessible facilities

by irresponsible people such as vandalized accessible toilets, public telephones and the misuse of the accessible parking space. The mentioned issues of accessibility and safety caused PwDs to have lesser opportunities to move freely at the recreational areas. These have limited their presence in recreational spaces and indirectly may create unhealthy lifestyles for them. In order to improve this situation, PwDs need complete and safe facilities for them, which also can be utilized by others. Therefore, any landscape features such as pathways, jogging tracks, plazas, pocket gardens, street furniture and other public facilities proposed and designed should function well and be usable by all.

According to the Department of Social Welfare Malaysia, DSW (2009), there are approximately 5-10% of the Malaysians who are considered as PwDs. They are classified into six categories which are; learning problem, Cerebral Palsy, physical disabilities, hearing disability, visual impaired, and 'others' (having two or more disabilities listed). Thus, drastic growing numbers of PwDs in Malaysia may worsen their condition if there are no efforts taken to improve the current situation of accessibility issues that not only focused on the public buildings, but also outdoor spaces which include recreational spaces.

1.2 PROBLEM STATEMENT

As concern on PwDs are currently growing from time to time, many aspects have been taken into consideration pertaining to the issues of access for these PwDs. Nowadays, in Malaysia, relevant authorities have taken into account in providing and improving good access for PwDs. This clearly demonstrates the government efforts for a start, to view with seriousness, building by-laws gazetted years ago to ensure access for PwDs (Thanasayan, 2009).

Accessibility at transportation hubs in cities like Kuala Lumpur has been improvised to create accessible transporting services for PwDs, as well as to the public. Light Rail Transit (LRT) stations, Express Rail Link (ERL) stations, and transportation hub like KL Sentral have made enhancements and upgrading works for the better benefit for PwDs. In addition, more Keretapi Tanah Melayu (KTM) Komuter stations in the Klang Valley will be equipped with facilities for the disabled by the middle of 2010 (Bernama, 2009). Buildings such as the Kuala Lumpur International Airport (KLIA), Kuala Lumpur City Centre, Menara Telekom, Menara Tun Ismail Mohd Ali (TIMA) in Kuala Lumpur, and other new buildings have regulated the provision of accessible facilities in their building premises. Other city like Petaling Jaya also, has launched a PwDs-friendly environment, not only in buildings but also outside building environment, and at facilities such as bus stops, taxi stands and walkways. Petaling Jaya is a city that has begun to improve the city's situation in reaching a barrier-free city. The situation takes some times to be improved, and many other establishments will be complying with regulations enforced in creating PwDs friendly environment.

While other buildings, premises, and establishments are one step further in improving to be accessible, outdoor public spaces seem to be in disregard in offering accessibility for PwDs. In Malaysia, it is hard to find any research and studies that are concerned about outdoor accessibility for PwDs. As many researches, studies and audits were conducted on public buildings, there is still lacking of audits and studies for outdoor spaces. Outdoor spaces like residential areas, pocket parks, gardens and recreational areas are still being left out in being promoted for studies that concerned with access for PwDs.

Recreational spaces belong to the community and the people, including the PwDs. This is because the recreational area is a place where people meet and enjoy

each other's company. A recreational area is also a suitable place in providing people with access to fresh air and nature for their recreation, as well as enjoying a healthy lifestyle within the community. In the case of access for PwDs, recreational areas are important to be accessible for them as they deserve to share the public facilities provided, as well as to enjoy a healthy outdoor environment. Upon browsing through the articles, newspapers, and books, there are not much that are concerned with the issues of accessibility for PwDs in recreational areas. Thus, in creating a barrier-free environment for PwDs, accessibility in recreational areas which are meant for the public also should be improvised.

1.3 RESEARCH QUESTIONS

The following research questions have been identified as important for this study.

- i) What are the most common access challenges or obstacles faced by PwDs in the recreational areas?
- ii) Does the current physical design and maintenance of recreational areas in Malaysia accommodate the needs of PwDs?
- iii) Are there specific guidelines, references or acts concerning PwDs accessibility in recreational areas?
- iv) How does inaccessibility in recreational areas affect PwDs?

1.4 RESEARCH GOAL

The goal of this research project is to investigate on the issues of accessibility and safety of PwDs in recreational areas.

In general, the study will endeavour to assess whether the accessibility needs of people with disabilities in recreational areas in Malaysia are being met by conducting a study at Kuching Waterfront and Taman Rekreasi Kiara as the selected

case study areas. This can be achieved through several methods of research, as well as comparative study in terms of guidelines in the Malaysian Standards (MS) and ADA Standards for Accessible Design with the existing condition of the mentioned case study areas.

1.5 RESEARCH OBJECTIVES

The following objectives were established towards achieving the research goal.

- i) To identify the accessibility requirement for PwDs in the recreational areas.
- ii) To conduct access audit and surveys on the selected recreational areas.
- iii) To observe on the compliance of existing guidelines for PwDs' access in recreational areas and its facilities.
- iv) To observe on PwDs response towards the existing condition of a recreational area, in the context of accessibility.

1.6 RESEARCH METHODOLOGY

The study is conducted to observe the current situation of the selected case study areas, in which its accessibility for the disabled is to be audited.

Literature reading on recreational areas and outdoor spaces for the disabled and related studies conducted previously is needed to gain understandings before conducting the research. Understanding on the criteria of accessible areas, by going through guidelines such as MS and ADA Standards for Accessible Design is very useful for the research. There were also **survey interviews** with PwDs, and conversations with related parties from the park authority and the closest persons or assistants of the PwDs. This was purposely to gather extremely detailed information from small nonrandom sample (Saodah and Ardi, 2009). The survey interviews for

this study were conducted with relevant personnel at both Taman Rekreasi Kiara and Kuching Waterfront.

Observation was made whether or not both case study areas have been frequently visited by the PwDs, and in terms of the use of the facilities provided for them. During the observations, photos of access audit exercise were captured, as well as the facilities assessed. Many comments and suggestions from the PwDs visitors were noted for any possible action and further analysis to be taken.

Access audit is the highlight of the research in which it was to study and analyze the existing condition of an area in relations with accessibility for the PwDs. It involves aspects such as the external works, design, layout and the fittings as well as the equipment used. Access Audit also identifies the level of accessibilities where landscape elements such as ramp, handrails, public facilities, street furniture, signage and parking spaces were studied.

The detailed explanations will be presented in Chapter Three.

1.7 RESEARCH LIMITATION

During the visits to the case study areas, it is identified that facilities to be audited are parking spaces, pedestrian walkways, food stalls/kiosks, public telephones, public toilets, praying rooms and resting facilities. The selections of these facilities are due to their existence in many recreational areas, as well as their frequent visits and uses by the public. Therefore, the focus is more on assessing the accessibility of these facilities as a basic requirement that should be fulfilled by the park management authority towards achieving disabled-friendly environment.

This study highlights two case study areas which are; Kuching Waterfront (located in Kuching, Sarawak); and Taman Rekreasi Kiara (located in Kuala Lumpur). In Kuching Waterfront, study was concentrated along the waterfront where people

love to stroll and conduct other activities such as strolling, boat ride, and viewing, while in Taman Rekreasi Kiara, the study was concentrated at the major circulation whereby visitors love to stroll, jog and do recreational activities such as picnicking and exercising. The selection of the study areas is based on the location, in which the Kuching Waterfront is located at the Borneo Island (East Malaysia) while Taman Rekreasi Kiara is located in the peninsular of Malaysia (West Malaysia). Both of these recreational areas are prominent and significantly being recognized as excellent places for people to visit and gather, other than conducting recreational activities, with its complete facilities for the public and well managed by the authorities.

This research was carried out with a few limitations, especially concerning the limited budget and severe limitation of the amount of time available on site, specifically during the field visit to Kuching Waterfront in Sarawak. These were the factors that limited the efficiency of the research. Spending a two-hour flight from International Islamic University Malaysia (IIUM) in Kuala Lumpur to the city of Kuching, the researcher spent 3 days in Kuching, in which only one day was allocated to be utilized for the access audit with the PwDs. In relation to this, the availability of the PwDs were also limited since they were also working, including weekends, and there were also those who could not participate in the exercise for the whole day. The duration of 3 days in Kuching was tightly scheduled with other activities related to the research such as the interview sessions and observation. In addition, the stay in Kuching required extra financial sources, not only in accommodating the researcher and assistants, but also to financially support the expenses and pocket money for the PwDs involved during the access audit exercise. In Taman Rekreasi Kiara, there were not much difficulties and limitations encountered, but the presence of the PwDs were not as many as in Kuching, in which there was no hearing impaired person

participated during the access audit. This was caused by the last minute cancellation of the hearing impaired person.

Throughout the access audit exercises, since all of the PwDs were moving together to spaces and facilities to be assessed, it was quite difficult for the researcher to listen, identify and record all responses, comments and suggestions made by the different categories of PwDs. This however did not much affect the findings as there were interview sessions after the exercises.

As many previous studies concentrated on public establishments and buildings, this study focuses on recreational areas due to its function that serves the public's need as well as the demand for a healthy environment. Thus, this study alerts on improvements on accessibility not only for the public but mainly focuses on PwDs. The limitations mentioned above somehow did not affect much of the research. However, generally, it is felt that better outcomes from the study could be obtained had there been adequate financial funding as well as sufficient time spent with the PwDs.

1.8 CONCLUSION

Research on accessibility for PwDs in recreational areas is needed in order to create understanding and awareness among the community in considering the importance of providing basic needs, including good access for PwDs. This study also intends to give opportunities for the PwDs to evaluate and express their opinions on the aspect of accessibility in recreational areas. This research is conducted to address the accessibility issues for the PwDs as developed and developing countries are working on improving the environment for the PwDs in all aspects of life. Therefore this research is hoped to contribute to the Malaysian context, as Malaysia is now a developing nation which has recently been serious in improving the accessibility for