Published by:
IIUM Press
International Islamic University Malaysia

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Asiah Abdul Rahim

Universal design: philosophy and selected applications in Malaysia

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ISBN : 978-967-418-130-7

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM
(Malaysian Scholarly Publishing Council)

Printed by:
IIUM PRINTING SDN.BHD.
No. 1, Jalan Industri Batu Caves 1/3
Taman Perindustrian Batu Caves
Batu Caves Centre Point
68100 Batu Caves
Selangor Darul Ehsan
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INTRODUCTION
The universal design environment is highlighted as being an important attribute to achieve comfort in the built environment including at the waterfront. The definition of universal design is usually inappropriately considered as being similar to barrier free. According to Ostroff (Saito, 2006) (1,2) barrier free is defined as 'a design concept to make a built environment accessible to people with physical disabilities and/or older people by removing architectural barriers present in existing buildings'. However, universal design was viewed by Mace (1988 from Preiser and Ostroff, 2001) (3) as 'an approach to design that incorporates product as well as building features which to greater extent possible can be used by everyone'. The focus of universal design is on all types of people in the society and not only disabled people (Ostroff in Saito, 2006) (1).

According to Manley (1998) (4), who frequently interchanged the terms 'barrier free' and 'universal design', areas that adopt the universal design may increase the percentage of people using an area. With the barriers in the built environment, people with disabilities will seldom go to the outside environment (Dai, 2009) (5). In relation to the waterfront area, having a universal design environment is an important attribute to invite all people without discrimination to the area, thus, allowing them to enjoy the river. It can be related to the integrative theory by Sternberg (2000) (6) because it allows for the integration across the property boundaries.

Manley (1998) (4) stated that achieving a real quality environment is only possible if it is accessible to all. She opined that a universal approach that considers the needs of all users is an important factor for every urban design project that involves the activity of people. Although this aspect is becoming more acceptable to urban designers, there are still some who do not concur with these attributes and refuse to consider it as a basic requirement in the design (Manley, 1996; Wilkoff and Abed, 1994 in Manley, 1998) (7, 8, 4). Manley (1998) (4) Questioned that as the list involves nearly all categories of people, including pregnant women, people who are temporarily impaired and children, it is a wonder why universal design is still of little interest to many. She opined that the role of the authorities and decision makers in drawing the policies and implementing them is an integral aspect in fulfilling the basic civilized human needs of future urban design. However, Dai (2009) (5) stressed that universal design in public facilities is a non-ending solution and a process, which is lasting. If that is the situation, how best do we evaluate a universal design environment in the Kuala Lumpur waterfront?