## UNIVERSITI TEKNOLOGI MARA

# FRAMEWORK OF EDUCATIONAL BUILDING DESIGN FOR CHILDREN WITH AUTISM IN MALAYSIA

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### **ABSTRACT**

Malaysia has been actively involved in providing accessibility in term of facilities for disabled since the country ratified the Convention on the Right of the child (CRC) in 1995. Consequently, of its obligation under the CRC, Malaysia enacted few laws regarding person with disabilities which include autism under the category of learning disabilities. Nevertheless, there are no policies or guidelines which focus merely on autism in Malaysia eventhough the prevalence of autism has face a major rise. With regard to this matter, research has proven that the quality of educational building enormously affects learning outcomes of individuals. By understanding the mechanism of this disorder and needs, learning environment maybe design favourably to enhance the learning performance. Therefore, the aim of this research is to propose a Framework of Educational Building Design for Children with Autism in Malaysia. In order to achieve the aim of research, this study utilises three objectives which are to explore the gap of the existing policy pertaining to children with autism with regards to educational building design, to identify variables in order to enhance learning environment within the context of educational building design as well as to conceptualize the variables of the learning environment in order to establish a framework. Qualitative research method has been embarked in this research whereby empirical data has been collected via semi-structured interview. Twenty-five respondents have participated in the semi-structured interviews and the data were analysed via Nvivo10 software. This research indicated that there is insufficient government policies been established pertaining to educational building design for children with autism in Malaysia. Yet, there are no specific building codes or policies that can be referred in order to fulfill the requirement of educational building design for children with autism because most of the building codes and policies are restricted to person with disabilities. Responses and recommendations were collected from each respondent on the key issues that were addressed in this research. Hence, the qualitative analyses were contextualized to develop a framework of educational building design for children with autism in Malaysia. In addition, validation stage was administered for the proposed recommendation to further develop a framework. Quantitative method was employed where validation questionnaires were distributed via email to the same group of respondents to validate and retrieve their comments on the proposed recommendations. As a result, framework of educational building design for children with autism was established where variables in terms of building construction and environment services have been identified to be considered to design educational building in order to intensify the learning development.

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### **CHAPTER ONE**

### BACKGROUND OF THE RESEARCH

### 1.1 INTRODUCTION

Malaysia has been actively involved in providing accessibility in term of built environment for disabled since the country ratified the Convention on the Right of child (CRC) in 1995. As a result, of its liability under the CRC, Malaysia enacted few laws regarding person with disabilities namely as Persons with Disabilities Act 2008 (Act 685), Malaysian Standard Code of Practice on Access for Disabled Persons and also Uniform Building By Law (UBBL) 34A. Nevertheless, these regulations are limited to disabled person where there are no particular regulations for designing a building for children with learning disabilities such as autism.

Autism or Autism Spectrum Disorder (ASD) is accustomed terms used for a group of people who suffer with the development of complex neurological disorders. Adding to this concern is the fact that recent research has found that the prevalence of children diagnosed with autism has increased in Malaysia. Align with this, doctors, psychologist and teachers reported that the number of children with autism has increased in their clinics and classroom (Toran, 2011). This disorders can be categorized into three different significant symptoms, whether in terms of repetitive and restricted behaviour, by impaired social interaction or unable to communicate with others (Kelleher, 2013). They keep on doing the same movement or motion such as hand flapping or body rocking and have limited focus on activities that they are doing (Nickels, 2010). Furthermore, children with autism experience social deficit where they tend to isolate themselves or prefer to be alone. Therefore, some parents prefer to isolate their children instead of putting their children in an unfamiliar situation that may cause distress to children with autism (Glazzard & Overall, 2012). Children with autism also show less attention to the environments because of the difficulties to process the information received through their sense (Hahn, 2012).

Other than that, children with autism also fail to respond to surrounding environment and usually avoid eye contact where it may have significant implication