

**PARTICIPATION OF CHILDREN WITH AND WITHOUT DISABILITIES IN  
RECREATIONAL AND LEISURE ACTIVITIES: A PILOT STUDY**

By

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## CERTIFICATE

This is to certify that the dissertation entitled

**PARTICIPATION OF CHILDREN WITH AND WITHOUT DISABILITIES IN  
RECREATIONAL AND LEISURE ACTIVITIES: A PILOT STUDY**

Is the bona fide record of research work done by

**MOHD AFIQ TAQUIDDIN BIN ZULKIFLY**

During the period of October 2014

To June 2014-05-26

under my supervision

Signature of supervisor

A handwritten signature in black ink, appearing to be 'Dr. Mohd Zulkifli Bin Abd Rahim', written over a horizontal line.

Name and address of supervisor : Dr. Mohd Zulkifli Bin Abd Rahim

Date : 26<sup>th</sup> June 2014

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## LIST OF ABBREVIATIONS

TD	Typical Development Children
ID	Children with Intellectual Disability
JKM	Jabatan Kebajikan Masyarakat (Social Welfare Department)
JPN	Jabatan Pelajaran Negeri
WHO	World Health Organization
ICF	International Classification of Functioning, Disability and Health
MAQ	Modified Activities Questionnaire

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## ABSTRACT

Participation in recreational and leisure activity is important for children development. It also promotes social well-being, as well as physical and mental health. Recreational and leisure activities provide learning opportunities for children such as learn skills for teamwork, self-discipline, sportsmanship, leadership, and socialization. All children would benefit from recreational and leisure activities including children with disabilities. This study investigated level of activity participation of children with and without disability in recreational and leisure activities and how those spent their leisure time. Forty children aged between 5 and 12 years old were recruited in this study and divided equally into two groups, namely Typical Development children (TD) and children with Intellectual Disability (ID).

The Modified Activities Questionnaire (MAQ) was used to measure children participation in recreational and leisure activities. The top five most frequent recreational activities participated by TD children were cycling, running, football, walking and badminton. Conversely, the top five most frequent recreational activities participated by ID children were walking, dancing, running, singing and playing football. It was found that TD children have higher level of activity participation in recreational activities than ID children.

In term of leisure activities, the top five most frequent participated by TD children were watching TV, playing computer games, listening to music, playing video games and leisure reading (book/comic). The top five most frequent leisure activities participated by ID children were watching TV, painting, water activities, listening to music, leisure reading (book/comic) and playing video games. This study found that the

level of participation in leisure activities of TD and ID children were similar. It was also found that TD children tend to participate more in active leisure but ID children participated more in passive leisure.

## ABSTRAK

Penyertaan dalam aktiviti rekreasi dan aktiviti masa lapang adalah penting untuk perkembangan kanak-kanak. Ia juga menggalakkan perkembangan dari segi sosial, dan juga kesihatan fizikal dan mental. Aktiviti rekreasi dan aktiviti masa lapang memberi peluang pembelajaran kepada kanak-kanak dalam kemahiran kerja secara berpasukan, disiplin diri, kesukanan, kepimpinan, dan bersosial. Aktiviti rekreasi dan aktiviti masa lapang memberi banyak manfaat kepada kanak-kanak dan termasuklah kanak-kanak kurang upaya. Tujuan kajian ini dijalankan adalah untuk mengetahui tahap penyertaan kanak-kanak normal dan kanak-kanak kurang upaya dalam aktiviti rekreasi dan aktiviti masa lapang. Kajian ini juga bertujuan untuk mengetahui bagaimana kanak-kanak normal dan kanak-kanak kurang upaya menghabiskan masa lapang mereka. Seramai empat puluh orang kanak-kanak yang berumur di antara 5 dan 12 tahun terlibat dalam kajian ini. Kanak-kanak ini dibahagikan sama rata kepada dua kumpulan iaitu kanak-kanak normal dan kanak-kanak kurang upaya intelek.

Borang Soal selidik Aktiviti yang telah diubahsuai (MAQ) telah digunakan dalam kajian ini bagi mengukur tahap penyertaan kanak-kanak dalam aktiviti rekreasi dan aktiviti masa lapang. Lima aktiviti rekreasi yang paling kerap disertai oleh kanak-kanak normal adalah berbasikal, berlari, bola sepak, berjalan dan badminton. Sebaliknya, bagi kanak-kanak kurang upaya intelek pula, lima aktiviti rekreasi yang paling kerap disertai adalah berjalan, menari, berlari, menyanyi dan bola sepak. Hasil kajian ini mendapati bahawa kanak-kanak normal mempunyai tahap penyertaan yang tinggi dalam aktiviti-aktiviti rekreasi berbanding kanak-kanak kurang upaya intelek.

Untuk aktiviti masa lapang pula, lima aktiviti yang paling kerap disertai oleh kanak-kanak normal adalah menonton TV, bermain permainan computer, mendengar muzik, bermain permainan video dan membaca (buku/ komik). Bagi kanak-kanak

kurang upaya intelek pula, lima aktiviti masa lapang yang paling kerap disertai adalah menonton TV, melukis, aktiviti air, mendengar muzik, membaca (buku/komik) dan bermain permainan video. Hasil kajian ini mendapati bahawa tahap penyertaan dalam aktiviti masa lapang bagi kanak-kanak normal dan kanak-kanak kurang upaya intelek adalah sama. Kajian ini juga mendapati bahawa kanak-kanak normal lebih cenderung untuk menyertai aktiviti masa lapang yang bersifat aktif tetapi kanak-kanak kurang upaya intelek lebih cenderung untuk menyertai aktiviti masa lapang yang bersifat pasif.

# Chapter 1

## INTRODUCTION:

### 1.1 Study Background

World Health Organization's (WHO's) introduced the International Classification of Functioning, Disability and Health (ICF) framework (WHO, 2001). The objective of the framework is to provide a unified and standard language for the description of health and health related states for all health professionals (WHO,2001 ), including sport scientist. The ICF is a framework which explains people's health and functions from a holistic, bio-psycho-social approach. The ICF explains health and functions through three domains which are inter-related. The domains are, (i) body function and structures; (ii) activities and participations; (iii) contextual factors.

This study would focus on the activities and participations according to the ICF as it is very relevant to us as a sport scientist. The ICF defines activities and participation as 'involvement in a life situation', in this instance participation in sports, leisure and play activities. The target population of this study is children with disabilities, thus, we will be using the children and youth version of the ICF, short form as ICF-CY. The ICF-CY defines participation as a person's 'involvement in a life situation' (WHO 2007). For children and youth, involvement in life situations includes participation in recreational and leisure activities as well as school and work activities. WHO recognizes the importance of the full participation of persons with disabilities and their organizations in the revision of a classification of functioning and disability. As a classification, ICF will serve as the basis for both the assessment and measurement of disability in many scientific, clinical, administrative and social policy contexts. As such, it is a matter of concern that ICF not be misused in ways that are detrimental to the interests of persons with disabilities.

Children is defined as those person under the age of 18 years old (Convention of Children Right and Children Act, 2001). Children with disability is defined as any child that unable to ensure by himself wholly or partly, the necessities of a normal individual and/or social life, as a result of a deficiency either congenital or not, in his physical or mental capabilities (World Health Organization, 1998). This study population would be normal children and children with intellectual disabilities Intellectual disability, is also known as mental retardation. The terminology is used to explain children who have limited IQ, which limits their ability to learn and daily life functional abilities, compares to peers of the same age. There are four levels of intellectual disabilities (mental retardation), namely, mild MR, moderate MR, severe MR and profound MR. Children with intellectual disability might have a hard time letting others know what they wants and needs, and taking care of themselves. Intellectual disability could cause a child to learn and develop more slowly than other children of the same age. It could take longer for a child with intellectual disability to learn to speak, walk, dress, or eat without help, and they have trouble learning in school.

Intellectual disability can be caused by a problem that starts any time before a child turns 18 years old or even before birth. It can be caused by injury, disease, or a problem in the brain. For many children, the cause of their intellectual disability is not known. Some of the most common known causes of intellectual disability are Down syndrome, fragile X syndrome, genetic conditions, birth defects, and infections that happened before birth.

Participation in recreational and leisure activities is important for children development. It also can promote social well-being, as well as physical and mental health, among children, recreational and leisure activities programs can introduce them

to skills such as teamwork, self-discipline, sportsmanship, leadership, and socialization. All children benefit from physical activities, and children with disabilities are no exception. Participation of children with disabilities in sports and physical activity programs promotes physical, emotional, and social well-being. The psychological benefits include improved mood, confidence and self-esteem, a reduction of anxiety and depression and an increase in a person's ability to cope with a range of stressors. Currently, there were issues about the limited opportunity for children with disability to participate despite the importance. And lack of information/investigation locally and internationally on this issue, which make this study is important to be investigated.

This pilot test will be conducted in Kelantan and it is important to be conducted because in Malaysia we do not know the extent of the involvement of ID children in recreational and leisure activities. This study may provide a new knowledge on levels of activity participation of ( TD and ID ) children and how the children utilised their leisure time. With this knowledge, parents can find the appropriate activity to their child (ren) and encourage their child (ren) to be more physically active. This study hypothesize TD children will participate in more social, recreational and leisure activities, engage in more activities with their peers, and have more friends than the children with intellectual disability.

## **Chapter 2**

### **Literature review**

#### **2.1 Children with Disabilities: An Overview**

World Health Organisation (WHO) and World Bank (2011) estimated that one billion or 15% of the world population are having some kind of disabilities. This estimate is higher than the previous estimation of 10% of population (WHO, 1998). It was also estimated that one third of them are children who are less than 15 years old. Translating this figure into Malaysian population of 29.3 million (Perangkaan Malaysia, 2012), there were about 4.4 million children with disabilities in Malaysia. In year 2005, the Ministry of Health reported that, there were 2,881 new cases of children with disabilities (aged 0-12 years) were registered. In Taiwan, Department of Statistics of Taiwan Ministry of the Interior was found that from 2004 to 2010, the registered cases between 3 and 17 years old ranged from 20,531 to 23,547, and the prevalence of intellectual disability increased constantly from 4.40/1000 to 5.79/1000 (Der- Chung Lai et al, 2012). In Malaysia, Prevalence of people with disabilities including children with disabilities in Malaysia was not well reported. The data was based on voluntary registration of people with disability (PWD) with the Social Welfare Department. The recent statistic was 359,203 (Department of Social Welfare, 2012). However, the differences with the WHO estimation and the statistic, reflects the seriousness of the problem and warrant further investigation. Children with disability in this study are recruited from children with intellectual disability.

## **2.2 Definition of Recreational and Leisure Activity.**

Recreation is an activity that people engage in during their free time, that people enjoy, and that people recognize as having socially redeeming values. Unlike leisure, recreation has a connotation of being morally acceptable not just to the individual but also to society as a whole (Hurd, Anderson et al. 2011). People also see recreation as a social instrument because of its contribution to society.

Leisure are categorised into three terms; (1) leisure as time (2) leisure as activity (3) leisure as state of mind. Hurd, Anderson et al. (2011) define leisure as activity is define as activities that people engage in during their free time, activities that are not work oriented or that do not involve life maintenance tasks such as housecleaning or sleeping. Leisure as activity encompasses the activities that we engage in for reasons as varied as relaxation, competition, or growth and may include reading for pleasure, meditating, painting, and participating in sports.

## **2.3 Activity Participation among Children With and Without Disability.**

The International Classification of Functioning, Disability and Health (ICF), categorized human functions in three interconnected areas which are impairment, activity limitations and participation restriction (refer to appendix A). Impairment refers to problems in body function or alterations in body structure such as paralysis or blindness. Activity limitations are difficulties in executing activities such as walking or eating as a result of impairment. Third area which is participation restrictions. Participation restrictions is defined as limitation to participate or involve in any area of life such as in ability to work or to participate in sports (WHO, 2011). ICF defines participation as involvement in life situations, which occurs across many locations, including environments of work, school, play, sport, entertainment, learning, civic life and religious practice (WHO, 2001). The definition is broad because it includes children's participation in school environments as well as in a more voluntary, extracurricular activities, such as recreation and leisure.

Children with disabilities has an equal right and should be given equal opportunity and access for education, health services, as well as opportunity to participate in sport and leisure activities. The equal opportunity and access has been declared in Articles 23–30 of the United Nations (UN) convention on the rights of persons with disabilities in year 2006 (United Nation, 2006). The trend of CWD participation in leisure activities varied between countries. Fauconnier et al. 2009 showed, in a cross-sectional European study of children aged 8–12 years with cerebral palsy (CP), that differences in leisure activity patterns of children with CP exist between European countries. The study reported that there were differences between countries in patterns of participation in leisure activities for children with disabilities both regarding

diversity and intensity. For children without disabilities there were mainly differences between the countries in recreational and social activities. The results showed that the environmental variations at the country of residence, was the strongest predictor of variance in all activity types performed on a regular basis for children with disabilities. On the contrary, for children without disabilities fewer differences between the countries were found and mainly in recreational physical and social activities.

The presence of a disability limits children's participation in physical and daily activities (McDougall et al., 2003 and Rimmer, 2006). For example, the children with intellectual disability (mild, moderate, severe, and profound) have limited communication, attention, and memory abilities that limit their participation in physical and daily activities (Poon- McBrayer and Lian, 2002). The limitation of participation in physical activities may lead to the risk of sedentary living because the presence of a disability, in general restrict the physical functioning, which in turn results in a further reduction of children's participation in physical activity (Sherrill et al. 1997). However, there is little information on the physical activity and health of children with disabilities, and research on this topic has been identified as an important public health priority (Cooper et al. 1999). The previous study suggest that children with disabilities are not active enough for health purposes (Hogan et al. 2000 and Longmuir and Bar-Or et al. 1994 : Rimmer et al. 1996).

The Canadian National Longitudinal Study of Children and Youth (1995) reports the prevalence of 30.3% of children aged 6 to 11 years with a chronic health condition and 3.6% of these children had limited daily activity due to their condition (McDougall et al. 2003). National surveys of various countries on disability report the prevalence of childhood disability and limitations to participate in daily activities to be 6.5% in the USA (Newacheck, Halfon et al. 1998), 4.2% in the most recent Canadian

survey (Statistics Canada 2002), and 4.6% in Australia (Bradbury et al. 2001). For children, participation in day-to-day formal and informal activities is vital.

Previous research found that children and youths with disabilities are more restricted than children without disabilities in their participation because there was less variation, fewer social engagements, and more time spent in home-based activities (Hewett et al. 1970; Stevenson et al. 1997). However, the other study indicated that children and youths with disabilities are participating actively and in the same types of activities as children and youths without disabilities. These studies found no differences in participation in informal and leisure activities such as playing with toys and doing puzzles (Henry et al. 1998).

It was reported in a more recent studies that, children with disability tend to engage more in passive and solitary activities not requiring social interaction (e.g. watching television or walking ) (Model et al. 1997; Orsmond et al. 2004; Buttimer and Tierney 2005) and engage less in casual social activities (e.g. socializing with relatives, friends and neighbours (Orsmond et al. 2004). M. King et al. (2013) found contrasting results. He found that many similarities in out-of-school activities between children with intellectual disability and children with typical development, when these groups were matched for age, gender, location and socioeconomic status. Children with intellectual disability participated in the same total number of out-of-school activities, and enjoyed activities to the same extent. The notable differences in participation between these groups were that children with intellectual disability participated in fewer skill-based activities, and less often when compared to their typically developing peers. Children with intellectual disability participated more in recreational activities and fewer in active-physical activities compared to their typically developing peers. There was limited studies that specifically investigate nature of participation among children

and children with disabilities. Most of the studies have been small and have not used representative samples of children with disabilities.

Furthermore, a study by Sloper, (1990) found that only 56% of children with Down Syndrome (DS) participated in formal, organized activities and reportedly participate in a wide range of recreational activities. For examples include walking, swimming, bowling, dancing, and team sports (Wuang et al. 2012). The types of leisure activities most participation among childrens with DS different around the world; for example, swimming most common in Australia (Oates et al. 2011) ice-skating in Canada, (Bowman et al. 1992) and bicycling in Taiwan, China (Wuang et al. 2012). Walking is one of the most commonly performed activities among children with disability.

## **2.4 The Benefits of Participation in Recreational and Leisure Activities**

Participation in recreational and leisure activities is important for children development. Recreational and leisure activities also can promote social well-being, as well as physical and mental health among children. Recreational and leisure activities programs can improve skills such as teamwork, self-discipline, sportsmanship, leadership, and socialization. Activity participation also provides an individual with opportunities to develop social bonds with different people (Wong et al. 2005). The children are recommended to participate in at least 60 min of moderate physical activity on most days of the week (Department of Health and Human Services and Department of Agriculture, 2005 and World Health Organization, 2003).

The importance of involvement in activity centrals on its positive influence on the development of skills and competences, social relationships, and long-term mental and physical health (Werner et al. 1989; Caldwell and Gilbert et al. 1990; Simeonsson et al. 2001; Forsyth, Jarvis et al. 2002). Besides that, through participation in leisure activities, children are tend to express higher levels of wellbeing, learn new skills and competencies, obtain experience of how society works and have increased opportunities to build friendships (Minnes et al. 2010).

Promoting moderate levels of physical activity among children with disabilities is an important goal for health and public policy, as regular physical activity improves well-being and contributes to the prevention or delay of chronic disease (Rimmer et al. 2004). It is important to encourage physical activities among children with disabilities. This is because the physical activities has therapeutic value which may reverse deconditioning secondary for impaired mobility, enhance overall well-being and may also optimize physical functioning (Durstine et al. 2000).