

**SELECTED TRADITIONAL GAMES CREATE  
ENJOYMENT AMONG CHILDREN**

**BY**

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**Dissertation submitted in partial fulfillment of  
requirements for the degree of Bachelor Health  
Sciences (Exercise and Sports Science)**

**June 2014**

## **CERTIFICATE**

This is to certify that the dissertation entitle

**SELECTED TRADITIONAL GAMES CREATE ENJOYMENT  
AMONG CHILDREN**

Is the bona fide record of research work done by

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During the period of October 2013 to June 2014

Under my supervision

Signature of supervisor

:  .

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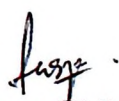
: 26 JUNE 2014

## **ACKNOWLEDGEMENT**

Alhamdulillah, thank you Allah S.W.T for granting me with health, strength , courage and time to complete this research well. I would like to express my sincere gratitude to all people who has given their contribution and support in completing this work, especially to my beloved mother, Puan Faridah and my siblings for their continuous support and motivation throughout the research process.

A special thanks to my supervisor, Dr. Mohd. Nidzam Jawis for the guidance, good advice and readiness to share knowledge for the betterment of this research project. I would also like to thank to all research participants for their commitment and willingness in contributing their time and effort to make this study materialized. Thank you to the headmaster, teachers and staffs in Sekolah Kebangsaan Pasir Hor and Sekolah Kebangsaan Long Gafar 2 for giving me full support and cooperation. Not forgetting to all my friends for their support during this research process.

Last but not least, a very special appreciation to all Sport Science unit staffs for the valuable helps and cooperation. Thank you very much.

  
Nur Fasya Bt Ibrahim

May 2014

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## **LIST OF ABBREVIATIONS**

<b>ACSM</b>	<b>= American College of Sport Medicine</b>
<b>CDC</b>	<b>= Centre of Disease Control and Prevention</b>
<b>CHD</b>	<b>= Coronary Heart Disease</b>
<b>DHC</b>	<b>= Department of Health and children</b>
<b>NASPE</b>	<b>= National Association of Sport and Physical Education</b>
<b>PA</b>	<b>= Physical Activity</b>
<b>PACES</b>	<b>= Physical Activity Enjoyment Scale</b>
<b>WHO</b>	<b>= World Health Organization</b>



## ABSTRACT (ENGLISH)

### SELECTED TRADITIONAL GAMES CREATE ENJOYMENT AMONG CHILDREN

Physical activity should be a normal part of daily living habits for young people. Throughout the lifespan, physical activity plays a key part in young people's physical, social and mental development. Physical inactivity has been associated with increased of risk factor and can contribute to the development of many disease such non communicable diseases (i.e. cardiovascular disease and diabetes mellitus) and became a major consequence prevalence of overweight and obesity in children. Physical activity reduces morbidity and mortality from many of the leading causes of ill health, notably coronary heart disease, as well as having positive effects on aspects of health including body fat and weight control, and depression and anxiety ( Paffenbarger, Hyde, Wing et al., 1993 and Blair, Kampert, Kohl et al.,1996). Traditional games should be attractive alternative activities for the children. Hence, this study aims to determine the effects of selected traditional games on enjoyment among 9 to 11 years old children. 600 healthy subjects aged 9 to 11 years old were recruited in this study. Physical Activity Enjoyment Scale (PACES) was used to determine the enjoyment in children towards the selected traditional games. Based on five selected traditional games i.e. *Bola Beracun*, *Baling Tin*, *Galah Panjang*, *Belalang Belatuk* and *Police & Thieves*, the three selected traditional games i.e. *Bola Beracun*, *Baling Tin* and *Galah Panjang* showed with  $p < 0.05$  in the PACES score. However, *Belalang Belatuk* and *Police & Thieves* found no significant difference with  $p = 0.12$  and  $p = 0.15$ . As for conclusion, this study found that three selected traditional games found to be more enjoy and fun according to their children enjoyment level before and after playing the traditional games.

Belatuk dan Polis Sentri, , ketiga-tiga permainan tradisional iaitu Bola Beracun, Baling Tin and Galah Panjang telah menunjukkan  $p < 0.05$  dalam skor PACES, manakala Belalang Belatuk pula menunjukkan tiada perbezaan ketara dengan nilai  $p=0.12$  dan  $p=0.15$  bagi setiapnya. Secara kesimpulannya, kajian ini menunjukkan terdapat tiga permainan tradisional yang telah terbukti dapat meningkatkan tahap keseronokkan kanak-kanak ketika bermain.



## **ABSTRACT (MALAY)**

### **PERMAINAN TRADISIONAL YANG TERPILIH MEWUJUDKAN KESERONOKKAN DALAM KALANGAN KANAK-KANAK.**

Aktiviti fizikal perlu menjadi sebahagian daripada kegiatan utama dalam hidup setiap golongan kanak-kanak. Aktiviti fizikal memainkan peranan yang sangat penting dalam perkembangan sosial dan mental manusia. Kekurangan dalam melakukan aktiviti fizikal telah dikaitkan dengan peningkatan faktor risiko yang boleh mengakibatkan berlakunya pelbagai jenis penyakit yang tidak berjangkit (contohnya penyakit kardiovaskular dan kencing manis) dan secaranya lazimnya menjadi penyebab utama berlakunya masalah obesity dan lebihan berat badan dalam kalangan kanak-kanak. Aktiviti fizikal dapat mengurangkan kadar morbiditi serta kematian yang berlaku akibat daripada masalah kesihatan, terutamanya sakit jantung. Ia juga dapat menjadikan kehidupan manusia lebih positif dengan taraf kehidupan yang lebih baik, kandungan lemak dalam badan yang normal, berat badan yang terkawal serta dapat menghindari daripada masalah kemurungan dan kembimbangan yang melampau. (Paffenbarger, Hyde, Wing et al., 1993 dan Blair, Kampert, Kohl et al., 1996). Permainan tradisional berkemungkinan dijadikan sebagai satu bentuk alternatif aktiviti fizikal yang dapat menarik golongan kanak-kanak. Kajian ini dijalankan bertujuan untuk mengenalpasti tahap kegembiraan kanak-kanak yang berumur dalam lingkungan 9 hingga 11 tahun ke atas permainan tradisional yang telah dipilih. Seramai 600 subjek yang telah terlibat terlibat dalam kajian ini. 'Physical Activity Enjoyment Scale (PACES)' telah digunakan bagi mengukur tahap keseronokan ke atas permainan tradisional yang dipilih. Berdasarkan kelima-lima permainan yang telah dipilih, iaitu Bola Beracun, Baling Tin, Galah Panjang, Belalang

# **CHAPTER 1:**

## **INTRODUCTION**

### **1.1Physical Activity and Health**

Physical activity is one of the important elements because an engagement in regular physical activity is an important part of a healthy lifestyle. The health benefits attribute to physical activity are varied, which includes the enhancement of biologic, physiologic and psychological functions (Siscovik, LaPorte & Newman, 1985; Tailor, Sallis & Neddle, 1985). Being physically active is one of the most important steps that can improve our health. Increased physical activity was also associated with an increased in life expectancy and decreased risk of cardiovascular disease (Darren E.R. and Crystal W., 2006). It gives people a chance to have fun, be with friends and family, enjoy the outdoors, improve their personal appearance, and improve their fitness so that they can participate in more intensive physical activity or sporting events. Some people are active because they feel it gives them certain health benefits (such as feeling more energetic) that aren't yet conclusively proven for the general population (Michael O. Leavitt, 2008) The benefits of physical activity occur in generally healthy people, in people at risk of developing chronic diseases, and in people with current chronic conditions or disabilities.

Physical activity is defined as any bodily movement produced by skeletal muscles that result in energy expenditure. (C J Caspersen and K E Powell, 1985). In other words, anything you do other than sitting or lying down is considered physical activity and can range from standing to running



fast. Physical activity in a daily life style that can be categorised into occupational, sports, conditioning, household or other activities. Subset of physical activity is maintenance of physical fitness. Physical fitness can be either health- related fitness or skill-related. Individuals who are fit are able to carry out daily tasks with vigor and alertness without undue fatigue and with ample of energy to enjoy leisure time pursuits and to meet unforeseen emergencies (Caspersen, Powell & Christenson, 1985).

Regular physical activity in children and adolescents promotes health and fitness. Compared to those who are inactive, physically active youth have higher levels of cardiorespiratory fitness and stronger muscles. They also typically have lower body fatness. Their bones are stronger, and they may have reduced symptoms of anxiety and depression. Moreover, physical activity is very important because by performing physical activity on a regular basis will help to improve overall health and fitness, as well as decrease the risk for many chronic diseases (Center for Disease Control, 2010). Physical activities can be one of the parameter in measuring how people's lifestyles are.

## **1.2 Children and Physical Activity**

A child means every human being below the age of 18 years (Children Act 2001). Participation of children and adolescents in regular physical activity and exercise has been associated with a number of health benefits. Many of these benefits including improvements in body composition, lipid lipoprotein profiles, glucose homeostasis and insulin sensitivity, autonomic tone, coronary blood flow, endothelial function, and psychological well-being. In addition, regular physical activity and exercise have been associated with reductions in

blood pressure, systemic inflammation, and blood coagulation (Warburton et al., 2006). Complimenting these benefits, regular physical activity participation has been supported for its contribution to the primary and secondary prevention of several chronic diseases (Lou et al., 2002; Warburton et al., 2006). Being physically active every day is an important matter for the healthy growth and development of babies, toddlers and pre-schoolers.

In this study, school children were chosen as subjects because it showed that in early childhood physical exercise helps build strong bones, muscle strength and lung capacity (Lindon, 2007). Brockman (2011) found those children's primary objectives for engaging in physically active play were for social and enjoyment reasons, to prevent boredom and because they were aware of the physical and emotional benefits of being active. They also valued the freedom from adult control. However, children felt that their active play was restricted by poor weather conditions, fears and lack of suitable play spaces (Josie G. & Issy C-H., 2012).

Physical activity in childhood is important for many reasons and a variety of sources indicate a direct relationship between physical activity and children's health (Josie G. & Issy C-H., 2012). Regular physical activity in children and adolescents promotes health and fitness. Compared to those who are inactive, physically active youth have higher levels of cardiorespiratory fitness and stronger muscles (Physical Activities Guidelines for American, 2008). They also typically have lower body fatness. Their bones are stronger, and they may have reduced symptoms of anxiety and depression. Physical activity is associated with substantially reduced risk of mental illnesses and conditions like depression, cognitive impairment and dementia (Fox, Mutrie & Hamer, 2008).



Exercise can help students feel better about them and their lives, reduce anxiety and improve mood.

The notion that high level of activity or fitness may enhance thinking, concentration and academic performance is attractive to educators (Keely & Fox, 2009). Students with better attendance, more positive attitude in school and superior academic performance were the students who regularly kept themselves engaged in daily physical activities (National Association for Sport and Physical Education and Council of Physical Education for Children, 2001). Children should be trained to be physically active to improve overall health and fitness and to prevent many adverse health outcomes. The effects of reduction in the physical education give risks to student's health. Keep physical activity as part of our young people's school days because it considers the fact that childhood obesity is now one of the most serious health issues facing United States children (Ogden et al., 2006). So, regular physical activity should be promoted in children during childhood to improve their health and fitness.

### **1.3 Traditional games**

Traditional games are one of the interesting activities that enjoyed by all Malaysians especially younger children. One of the characteristics of traditional games is imagination. It plays a fundamental part in this game. Often, traditional games are played without materials, nor a ball, which allows the players to place all their attention on observation and interpersonal relations (Parlebas, 1975). They played these games to communicate and spend time with their family, friends, relatives and even neighbours. Playing these games helped create bonds between players. Today, many games are still played by many

Malaysians and even foreigners. The most popular games are: *Galah Panjang*, *Belalang Belatuk* and *Bola Beracun*. Traditional games are known as unstructured or informal games, often played by children without adult organization. They were designed in such a way that one can develop lot of skills like logical thinking, building strategy, concentration, basic mathematics, aiming and lots more (Parlebas, 1957).

In this study, traditional games were chosen as the element because traditional games were played elsewhere. Most of the children love to play traditional games. Playing traditional games can be an important way of creating bonds with other children (Dunn et al., 2004). They can mingle around while playing the traditional games. Beside, children who are playing traditional game use their own language, rules and values and play help them to develop their own identities (Casey, 2010). So, from here they can build their communications skills by interacting with their friends. We have selected a few types of traditional games to be played by the school children. These traditional games are played during the physical education class. Children are asked to fill the questionnaires immediately before and after they are playing the traditional games. We measured their enjoyment level by analyze all the questionnaires.

All children, even less-coordinated ones, need to be physically active. Activity may be particularly helpful for the physical and psychological well-being of children with a weight problem. Traditional games also can involve children in high levels of physical activity (Mackett, 2008). Children are more physically active when playground rules, policies and supervision allow for non-competitive, open-ended play such as traditional game (Bell & Dymont, 2006).



So, traditional games should be practiced in school so that children can be more attracted to play during physical education class.

#### **1.4 Enjoyment**

Enjoyment is the state or process of taking pleasure in something and a thing that gives pleasure with the action of possessing and benefiting from something (New Oxford Dictionary, second edition, 1957-2007). Enjoyment is a term habitually used by policy makers, practitioners and students as if its meaning was self-evident, or as synonymous with a range of other concepts such as fun and satisfaction. This is not helpful for those exhorted to ensure enjoyment is experienced, or for those researching its presence in our schools. Hartley (2006) suggests that enjoyment is an emotion. It is about how we feel, not about what we think. One might, therefore, draw from a range of disciplines, including philosophy and psychology, to conceptualise the emotion of enjoyment with more clarity.

Wankel (1993) defined enjoyment as a positive emotion or affective state which may be homeostatic in nature. In sport, athletes' perceptions of sport enjoyment have much to do with how they interpret the athletic experience and what has been understood to affect commitment (Schmidt & Stein, 1991; Weiss, Kimmel & Smith, 2001), motivation, and continuation in sport (Butcher, Lindner & Johns, 2002; Kimecik & Harris, 1996). Enjoyment has the potential to influence current and future levels of physical activity and exercise participation. When adherence to physical activity is sustained, individuals are able to associate psychological and physiological benefits of a physically active lifestyle (Wankel, 1993).

### **1.5 Objectives of the study**

To determine the effects of selected traditional games on enjoyment among 9 to 11 years old children in Kota Bahru.

### **1.6 Significance of the study**

This study would be so important since we want to know the knowledge from the out coming result of the study. The knowledge is about the enjoyment of children while playing traditional games. Are children like to play traditional games? Is there any evidence prove that children are enjoy while playing those traditional games? All these will help parents to be more understanding about their children emotional while they are playing.

Various studies have shown that exercise or physical activity helps cognition by increasing blood and oxygen flow to the brain, reducing stress and improving mood, making students more likely to behave in the classroom, learn to obey rules. This mean that they are more disciplined and able to concentrate better during lessons (Sigh, 2012). This research is beneficial in encouraging children to participate in physical activity and exercise especially during their physical education class. If they are enjoy playing traditional games, teacher should try to allow and manage some traditional games for children to play during physical education class. Besides, instead of playing just a ball, running and skipping, teacher can teach them how to play traditional games, so they can get new knowledge about our traditional games and enjoy it.



## **CHAPTER 2:**

### **LITERATURE REVIEW**

#### **2.1 Play in Children**

A child means every human being below the age of 18 years (Children Act 2001). Participation of children and adolescents in regular physical activity and exercise has been associated with a number of health benefits. Playing is central to children's physical, psychological and social well-being. When playing, children can experience the real emotions, create their own uncertainty, experience the unexpected, respond to new situations and adapt to a wide variety of situations. Play can enable children to form friendships and attachments to adults and to places, allowing for the development of familiarity and intimacy with both. It also can provide opportunities for independent learning and building confidence, resilience, self-esteem and self-efficacy (Lester and Russell 2008; NICE 2010; Coalter & Taylor, 2001). Besides, play can bring families closer together, strengthening parent–child relationships (Gardner & Ward, 2000). Playing away from adult supervision is equally important, allowing children to acquire independent mobility, explore the world on their own terms and create their own identities (Armitage, 2004).

Active play is the most common type of physical activity children takes part in outside of school, and outdoor and unstructured play may be one of the best forms of physical activity for children (BHF, 2009). Brady and others (2008) found that physical activity in early years settings was influenced by a

number of factors, including the layout of the setting, ethos of play staff, encouragement from staff, opportunities for free flow play and access to outdoor space and suitable equipment. This not only influenced the time children spend playing actively, but also the quality of the play. Play is not only important for children's physical, psychological and social well-being and development but also for the wider community and society. Psychological research has established that there are five fundamental types of human play, commonly referred to as physical play, play with objects, symbolic play, pretence or socio-dramatic play, and games with rules. Each supports a range of cognitive and emotional developments and a good balance of play experience is regarded as a healthy play diet for children (Whitebread, 2012).

Young children are strongly motivated to make sense of their world and, as part of this; they are very interested in rules. As a consequence, from a very young age, they enjoy games with rules, and frequently invent their own. These include physical games such as chasing games, hide-and-seek, throwing and catching etc. and, as children mature, more intellectual games such as board and card games, electronic and computer games, and the whole variety of sporting activities.

## **2.2 Traditional games as a form of Physical Activity**

A traditional game is also known as an unstructured or informal game, often played by children without adult organization (Parlebas, 1957). They were design in such a way that one can develop lot of skills like logical thinking, building strategy, concentration, basic mathematics, aiming and lots more. Traditional games were creatively created from free and natural sources. It is a



genre or form of folklore that has been circulated orally among members of certain collective and passed through one generation to other generation and it has many variations (Ifa, 2006; Danandjaja, 1987). Traditional games is any types of activity that either need or not the usage of materials that has been passed by our ancestor as a medium for fun and enjoyment. (Ifa, 2006; Soepandi et al., 1986). It is also said to be that the existence of the traditional games actually to developed people physical, mental and social attributes which all this factor is essential to justify the birth of culture. (Parlebas, 1957).

Parlebas (1957) have listed some of the characteristics that give a figure about the nature of the game across different country. Even though each of traditional game is created a different culture and traditions, the way if created is derived from a similar based. The first characteristic of traditional games is a good imagination. The symbolic implication is much more important than in a collective sport. Usually, traditional games is not play with only two teams that oppose each other, but three even four, establishing dynamics that are no longer those of opposition but of seemingly contradictory choices. This type of game promotes collective strategies that allow certain from of creativity and not only force children to make individual choices but also to concentrate and be attentive. Most often, these games are played without materials, nor a ball, which allows the players to place all their attention on observation and interpersonal relations. Besides, playing traditional games can encourage everyone's participation, allowing each one to get involved, to succeed and to assume a role leading to self- appreciation of the group.

Physical activity in early years settings was influenced by a number of factors, including the layout of the setting, encouragement from staff,

opportunities for free flow play and access to outdoor space and suitable equipment and traditional games is the easier way for them (Brady et al., 2008). Traditional games require physical activity and thus help to develop children's physical agility and strength, foster prevalence and concentration and develop balance (Culture and People of Japan, 2007). Traditional game program also is more effective than daily activity in order to developed object control, locomotors and fundamental skills (Akbari et al., 2009). Physical activity promotion through activities such as traditional games may create enjoyment toward the activity and creates a consistency habitual to keep engage with physical activity.

Playing traditional games will encourages children to be more active, social and investigative, which often leads to their first experience with winning and losing. It allows children to be creative, use their imaginations, exercise, and can develop their mental and emotional competence (Ginsburg, 2007). Playing traditional games can be an important way of creating bonds with other children (Dunn et al., 2004). Children who are playing traditional game use by using their own language, rules and values, can help them to develop their own identities (Casey, 2010). Free play such as traditional games can involve children in high levels of physical activity (Mackett, 2008). Besides, children are more physically active when playing an open-ended play such as traditional game (Bell & Dymont, 2006). Playing traditional games would allow children to gain higher physical activity level were associated with longer playtimes (Ridgers et al., 2007).



## 2.3 Fun and Enjoyment

Although the definitions of fun and enjoyment may overlap considerably, fun is a subset of enjoyment. That is to say, all fun is enjoyable, but enjoyment cannot be simply categorized as fun. This is consistent with Scanlan and Simons (1992), who defined sport enjoyment as, *"a positive affective response to the sport that reflects generalized feelings such as pleasure, liking and fun. This construct is more differentiated than global positive affect, but more general than a specific emotion such as excitement"*. Wankel and Sefton (1989) supported the idea that fun represents a general positive emotional state for young people. Although enjoyment is often used to indicate intrinsic motivation (Csikszentmihalyi, 1975; Deci & Ryan, 1985). Scanlan and Simons (1992) proposed enjoyment to be a broader and more inclusive construct. The term "fun" is used here, and signifies a positive emotional state that is a subset of enjoyment. Fun and enjoyment are the greatest motivators for physical activity and while children see health reasons as important, they are more attracted by 'unhealthy' activities if they are more fun than 'healthier' activities (Hemmings, 2007).

Fun and enjoyment are important in physical education research, although there has been some debate concerning the distinction between the two concepts. Enjoyment is generally regarded as helpful in fostering positive attitudes towards and encouraging participation in physical education (Prochaska, et al, 2003; Subramaniam and Silverman, 2002; Laws and Fisher, 1999; Brustad, 1993). Fun has been reported by some researchers as a term used by some children to describe enjoyment (Wankel and Sefton, 1989), while others have considered fun to be one factor contributing to their enjoyment

(Dickenson and Sparkes, 1988; Goudas and Biddle, 1993). As a conclusion, fun in particular, has not always been considered an appropriate outcome of physical education (Siedentop, et al, 1986).

## **2.4 Enjoyment in Physical Activity**

Enjoyment is a feeling of contentment and appreciation to our lives. It also producing of accomplishment, euphoria and happiness (Kendzierski & De Carlo, 1991). Enjoyment also can be defines as a multidimensional structure which related to enthusiasm, excitement, and cognitions (Hashim, Grove and Whipp, 2008). Enjoyment is both a predictor and outcome of physical activity participation. Expected enjoyment from physical activities can increase exercise intentions and the mere anticipation of positive emotions predicts physical activity adoption and maintenance. Moreover, stronger anticipation of negative emotions is associated with weaker physical activity intentions and behavior (Wang, 2010). The concept of enjoyment has been defined as a multidimensional construct consisting of factors associated with excitement, affect, competence, attitude, and cognition (Crocker, Bouffard, and Gessaroli 1995; Wankel 1997). According to Scanlan and Simons (1992) enjoyment is an important factor in participation in sport that may lead to greater involvement in the activity. Rowland and Freedson (1994) stated that providing enjoyable experiences is a potential strategy for increasing physical activity levels in youth. Wallhead and Buckworth (2004) found that enjoyment in school physical education was related to the motivational factors associated with the adoption of a physically active lifestyle outside school hours. Additionally, enjoyment has been linked with physical activity engagement in physical education (Kremer, Trew, and Ogle 1997; Wallhead and Buckworth, 2004).



Enjoyment has the potential to influence current and future levels of physical activity and exercise participation. When adherence to physical activity is sustained, individuals are able to associated psychological and physiological benefits of a physically active lifestyle (Wankel, 1993). Enjoyment also affects the long term physical activity levels of youth. Enjoyment is both a predictor and outcome of physical activity participation (Dacey et al., 2008; McArthur et al., 2006). It also has been suggested that lack of interest and enjoyment could be the reason of withdrawal from any physical activity. When children establish a pattern of regular physical activity in their lives, they optimize the potential for long term health benefits. By developing interventions in which the cognitive, emotional, physical and social maturity of the youth are targeted, physical activity is more likely to be enjoyable.

There are a relationship between enjoyment, peer support and physical activity ( Sallis et al., 2002; Spribger et al., 2006) which are correlated with high physical activity among children. Enjoyment influences adherence by increasing the appeal of current activities and decreasing the appeal of alternate, sedentary pursuits (e.g. screen time) or negative behaviors (e.g. gangs, at-risk behaviors) (Weiss, 2000). As an illustration of the relationship between physical activity participation and enjoyment, Susan Harter's (1987) model of self-esteem was adapted by Weiss and Ebbeck (1996; see Weiss, 2000 for visual). In this model (represented in Weiss, 2000), social support was shown to influence perceived competence/adequacy and the central construct self-esteem. Perceived competence/adequacy (as influenced by social support) was shown to also impact the central construct self-esteem. As outcomes of self-esteem, enjoyment and physical activity behaviour are shown also to be

effected. Finally, enjoyment was represented as having a direct influence on physical activity behaviour. This model indicates that interventions which increase perceived competence, social support, and enjoyment will result in a maintenance or increase of physical activity levels amongst children and youth (Weiss, 2000).

Participation motivation research (e.g., Ewing & Seefeldt, 1990) has shown consistently that children participate in youth sport programs "to have fun" as their primary objective. Although recent commentary (Kimiecik & Hams, 1996; Wankel, 1997) has raised conceptual/definitional concerns about the meaning of fun and enjoyment, it remains clear that children are seeking positive experiences that they would classify as "fun." Some researchers have argued fun and enjoyment are often used synonymously in youth sport "because 'fun' is often the word children use for 'enjoyment'" (Scanlan & Simons, 1992). To have fun in sport means to be totally involved, seeking pleasure from participation by oneself or with others. However, in some instances, the fun aspect is being taken out of junior sport, often by the actions of some well-meaning adults (Robertson, 1983). By increasing the enjoyment, children are more likely to continue participation in physical activity due to an intrinsic desire to adopt a physically active life. The emphasis on the importance of enjoyable physical activity experiences and programs for children is undeniable. When positive attitudes are formulated regarding the importance of exercise, the stage is set for the maintenance of a physically active lifestyle throughout adolescence and adulthood, in turn influencing long term health (Welk, 1999).

If parents and youth sport coaches are to help young athletes to achieve their goal of having fun, it is helpful to understand what characteristics



of youth sport tend to enhance and to detract from fun. Knowledge of what makes youth sport enjoyable for participants is a key to improving the quality of children's experiences. A desire to meet children's participation motives and developmental needs may provide enough provocation for many individuals both to consider how to maximize fun in youth sport and to determine what detracts from fun in youth sport. The purpose of this study was to consider parents', coaches', and children's perceptions about what enhances and detracts from fun in youth sport experience from practice to competitive settings.

Enjoyment has been measured using single items (DiLorenzo et al., 1998; Sallis et al., 1999; Trost et al., 1997) that have minimal reliability or validity evidence (Kendzierski & DeCarlo, 1991). Therefore, the development and validation of the Physical Activity Enjoyment Scale (PACES; Kendzierski & DeCarlo, 1991) was a significant advancement in studying youth physical activity enjoyment (Crocker, Bouffard, & Gessaroli, 1995), and researchers increasingly examined the factorial and construct validity of the PACES in youth samples. One study reported that PACES conformed to a unidimensional model with a method effect underlying the positively worded items in a sample of Caucasian and African American youth (Motl et al., 2001). Based on the method effect, another recent study removed the positively worded items and established the factorial and construct validity of this shortened PACES (S-PACES) in a sample of sixth- and eighth-grade girls (Dishman, Motl, Sallis et al., 2005). Wankel (1993) emphasizes that the bottom line regarding selection and adherence to physical activities is that people will choose to participate in the activities that they are enjoyed. Furthermore, evidence supporting the construct validity was gathered as scores on the PACES differentiated between self-

selected and compulsory exercise modalities. Moore et al. (2009) modified PACES questionnaire specifically for children by using the original PACES. The questionnaire contains 18 questions with seven scales.

## **CHAPTER: 3**

### **METHODOLOGY AND PROCEDURE**

#### **3.1 Subjects**

Subjects were recruited from two primary schools in Kota Bahru district of Kelantan. The schools involved were Sekolah Rendah Kebangsaan Long Gaafar 2 which consists of 300 subjects and Sekolah Kebangsaan Pasir Hor which consists of 240 students with total students involved in this study is 600 subjects. Subjects were randomly selected from the two schools which involved students of year three, year four and year five.

Permission to conduct this study was granted by the Universiti Sains Malaysia Research Ethics Committee ( Human) ( Appendix A), Malaysian Ministry of Education ( Appendix B), Education Department of the state of Kelantan (Appendix C) and the headmaster of the respective schools.

Subjects and their parents/guardians were informed about the study design including objectives, procedures and possible risk could be happen in this study. Written informed consent (Appendix D) was obtained from the subjects and their parents/guardians using profoma prior to the start of this study.

##### **3.1.1 Calculation of Sample Size**

The sample size was calculated by the G\*Power Software (Version 3.1.3). Type 1  $\alpha$  error for a two-tailed test was set at 0.05 while the power of the



study was set at 0.80. Taking in to consideration the chi-square procedure and effect size of 0.3, the calculated sample size was 108 subjects. A 10 % drop out rate was considered and thus the total subjects of 120 subjects were recruited in this study. This calculated amount is for the one particular type of traditional games. Total of selected traditional games are five and each traditional games consists of 120 subjects, Total sample size for the whole study was 600 subjects.

### 3.1.2 Inclusion and Exclusion Criteria

Subjects in this study were selected based on several criteria for the purpose of this study.

**Table 1:** Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Boys and girls of the age ranges from 9-11 years old.	With illness or physical disability e.g. cardiovascular disease, muscular dystrophy etc. that may prevent the subject from completing the study,
Healthy boys and girls	

While performing the activity, subject who was not able to performed the activity with the time given because of the tiredness or could not cope with the intensity of the particular games was excluded from this study.

Parents/guardian of the subjects recruited; require to fill in the Subject's Information Form (Appendix E) to ensure that only those who fulfill the inclusion and exclusion criteria were selected for this study.

### **3.2 Instrumentation**

- I. PACES questionnaire – used for measuring the perceived of enjoyment before and after the particular activity
- II. Stadiometer ( Seca Bodymeter 208, Germany) – used for measuring height
- III. Weighing scale ( Tanita THD-306, Japan) – used for measuring weight
- IV. Measuring tape – used for measurement of the pitch of playing area
- V. Stop watch ( RESEE,China)- record the time during playing time
- VI. Whistle – used to informing or sign for the starting and finishing of the activity
- VII. Tins – used for the *Baling Tin* games. Six can was used for that particular game
- VIII. Ball – used for the *Bola Beracun* game. Type of ball used for this particular game is the ball used for volleyball games.
- IX. Tennis Ball- used for the *Baling Tin* games. Two balls were used for that particular game.
- X. Plastic Rope – used for make a border line of a playing area.

### **3.3 Study Design**

This study was designed to determine the pre and post exercise enjoyment via the Physical Activity Enjoyment Scale (PACES) questionnaire, and also determination of anthropometric on height and weight. The data collection was conducted in the respective schools during the physical education session.

### **3.4 Study procedure**

This study was conducted during the physical education (PE) lesson. Time table for the different classes involved was given by the headmaster to plan which classes will be involved for the data collection. After assigned which class involved into a particular day, all the physical education teachers were informed to make sure all the students gather at the field within the time. Not all students in a one class involved, only 20 students were selected to join the activity. The rest of the students who does not involved were continued PE lesson as usual conducted by their PE teacher. However, because there were two PE lesson in a week, students who were not involved before then are allowed to join the activity in the following day. Six day was needed to complete one type of traditional game.

On the particular day of data collection, before the activity was started, brief instruction was given to the subjects about the whole procedure. PACES questionnaire have been distributed to all subjects and 15 minutes was given for them to answer all the questions. After that, subject's height and weight were measured by stadiometer (Seca Bodymeter 208, Germany) for height

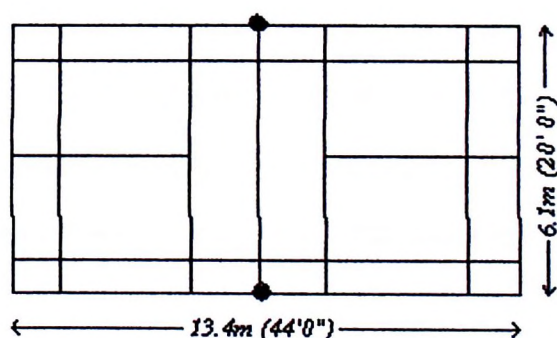


measurement and weighing scale (Tanita THD-306, Japan) for the weight measurement.

Five minutes were given to the subjects for the warm-up session and to familiarize the way the game was played. Activity for the game was set about 30 minutes and another five minutes were given for the warm-down session after the activity. Then, PACES questionnaire was given once more for measured perceived of enjoyment after the activity.

### 3.4.1 Selected Traditional Games

All selected traditional games for this research are taken from the books of "Siri Panduan Permainan Tradisional Kanak-kanak", (Dewan Bahasa dan Pustaka, 2005). The similarity of the structure of the game also was taken into account in order to compare the intensity each of the games. Five games that have been chosen for this research are *Bola Beracun*, *Baling Tin*, *Galah Panjang*, *Belalang Belatuk* and *Police & Thieves*. The games being played are referred according to the books. Time needed for this game is about 30 minutes per activity. All the games were used a same size of playing area which has a size same with a badminton court.



**Figure 1:** Badminton court size dimension



### **3.4.1 (a) Bola Beracun**

*Bola Beracun* is a variation of dodge-ball, but it can be played in with flexible place and space which only requires a single ball (any type of ball) and team play is optional. Playing area was set according to the size of the badminton court.

#### **Equipment used**

- I. Measuring tape
- II. Plastic rope
- III. Whistle
- IV. Stop watch
- V. A ball ( used for softball game)

#### **How to play?**

This game need a circle or boundary marked onto the floor which all the group can comfortably fit. One member of the group is armed with a ball and remains outside the circle while the rest of the group stands inside the circle. The ball is thrown into the circle with aim of tagging one or more of the players. Anybody in the group that is tagged (poisoned) is eliminated and joins the players outside the circle in trying to tag the remaining members of the group. The untagged player is considering as a winner. No head shot is allowed and the ball was kept low below the waist level.



**Figure 2:** *Bola Beracun* game performed by the subjects. (Photograph was taken with permission)

### **3.4.1 (b) *Galah Panjang***

In this game, children will be opposed into two different team which are running team and tagging team. The objective of the running team is to move to the other end of the *Galah Panjang* court and then going back at the starting point. Players will have to do this by avoiding and cleverly past over the tagging team. Playing area was set according to the size of the badminton court.