

# ACK 2017

**The 8<sup>th</sup> Asia Conference on Kinesiology**  
in conjunction with

**The 18<sup>th</sup> World Congress for Kinesiologists, 2017**

***The Value of Human Movement***

## Abstracts

Keimyung University, Daegu, Korea  
**November 30 ~ December 4 2017**

**Host**

Asian Society of Kinesiology, Korean Association of Certified Exercise Professionals,  
Korean Academy of Kinesiology

**Organization**

Asia Conference on Kinesiology Organizing Committee, Keimyung University

**Sponsors**

National Research Foundation of Korea, Daegu Metropolitan City, Daegu Convention &  
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This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government.



# Saturday Morning, December 2, 2017

ACK2017-055, Wellness Gym (College of Physical Education), 02/12/2017 09:05~09:55

## Exercise effect for metabolic syndrome

Sang Jun Jeon. *Phillip sports rehab & prevention center, Korea.*

The metabolic syndrome is a combination of metabolic disorders, such as dyslipidemia, hypertension, impaired glucose tolerance, compensatory hyperinsulinemia and the tendency to develop fat around the abdomen. Individuals with the metabolic syndrome are at high risk for atherosclerosis and, consequently, cardiovascular disease. The regular physical exercise has been show to have beneficial effects in the prevention and treatment of blood hypertension, insulin resistance, diabetes, dyslipidemia, and obesity. In this review, multiple physical exercise (continuous aerobic exercise, High intensity interval training, circuit training, resistance training) has been show to have beneficial effects in the prevention and treatment of metabolic syndrome. 1) Dynamic endurance training has a favourable effect on most of the cardiovascular risk factors associated with the metabolic syndrome 2) High intensity interval training was more beneficial than moderate-intensity exercise training for reducing cardiovascular risk in rats with the metabolic syndrome 3) high-intensity circuit training is more effective in improving blood pressure, lipoproteins and triglycerides than endurance training alone or lower intensity circuit training 4) The circuit weight training is a great strategy to improve the body composition, muscle strength and cardiovascular functions and, consequently, to maintain functional capacity during aging In this review, we summarize the effects of multiple physical exercise (continuous aerobic exercise, High intensity interval training, circuit training, resistance training) on the development of the metabolic syndrome.

\* I confirm that ethical consideration is given to my research.

### Keywords:

metabolic syndrome, cardiovascular risk factor, high intensity interval training, circuit training, resistance training

ACK2017-058, College of Physical Education 101, 02/12/2017 09:05~09:25

## The role of children traditional plays in facilitating kindergarteners' physical and motor skills development

Wawan Sundawan Suherman. *Yogyakarta State University, Indonesia.*

Children's physical and motor skills development are complex process, which include not only physical growth but also the maturity of systems, and development of functioning. The purpose of this report is to describe the role of children traditional play in facilitating kindergarteners' physical and motor skills development. This study employed the research and development approach which was used to develop an instructional model base on traditional children plays. Significant physical growth in quantity changes experience of children, such as height, weight, and body size. There are two terms of development of the children's motor skills, i.e. gross motor movements, and fine motor skills. The process of physical and motor skills development is influenced by a variety of internal and external factors. One important factor that has contributed

significantly to children's growth and development is physical activity. One of the physical activity that is known and suitable for children is a traditional children play. Children play helps children develop physically, mentally, emotionally and socially. Children play has an important meaning for physical and motor skills development of children.

There are thirty two traditional children plays that can be utilize in teaching-learning process at Kindergarten in facilitating physical and motor skills development. By utilizing traditional children play, optimal physical and motor skills development will be experienced by children.

\* I confirm that ethical consideration is given to my research.

### Keywords:

traditional children play, physical and motor skills, kindergarteners

ACK2017-059, College of Physical Education 101, 02/12/2017 09:30~09:50

## A multi-component physical activity intervention for adults with intellectual disabilities living in group home

Bik Chu CHOW<sup>1</sup>, Wendy Ya-jun HUANG<sup>1</sup>, Peggy Hiu Nam CHOI<sup>2</sup>, Chien-yu PAN<sup>3</sup>. <sup>1</sup>Hong Kong Baptist University, Hong Kong. <sup>2</sup>Technological and Higher Education Institute of Hong Kong, Hong Kong. <sup>3</sup>Kaohsiung Normal University, Taiwan.

### [Purpose]

Adults with intellectual disabilities (ID) often live a sedentary lifestyle and have higher rates of overweight and obesity. The purpose of this report is to describe the design and methods of a multi-component physical activity (PA) intervention program that aims to increase PA levels in adults with ID who live in group homes.

### [Methods]

The study employed a multi-component delayed treatment control group design involving adults with ID who lived in two group homes (N = 62). Interventions included 30 exercise sessions in groups over a 10-week period and three educational lessons based on social cognitive theory that aimed to improve self-efficacy and social support for PA in the participants. In addition, staff training in exercise and advice on institutional PA policies were provided to the caregivers working in the group homes. Outcome measures on three aspects were collected: (1) physical fitness, (2) PA as assessed by an ActiGraph accelerometer, and (3) self-efficacy and social support for PA. Our major objective was to develop the intervention protocol, and the successful completion of this study will provide valuable evidence on how to promote active lifestyles in adults with ID.

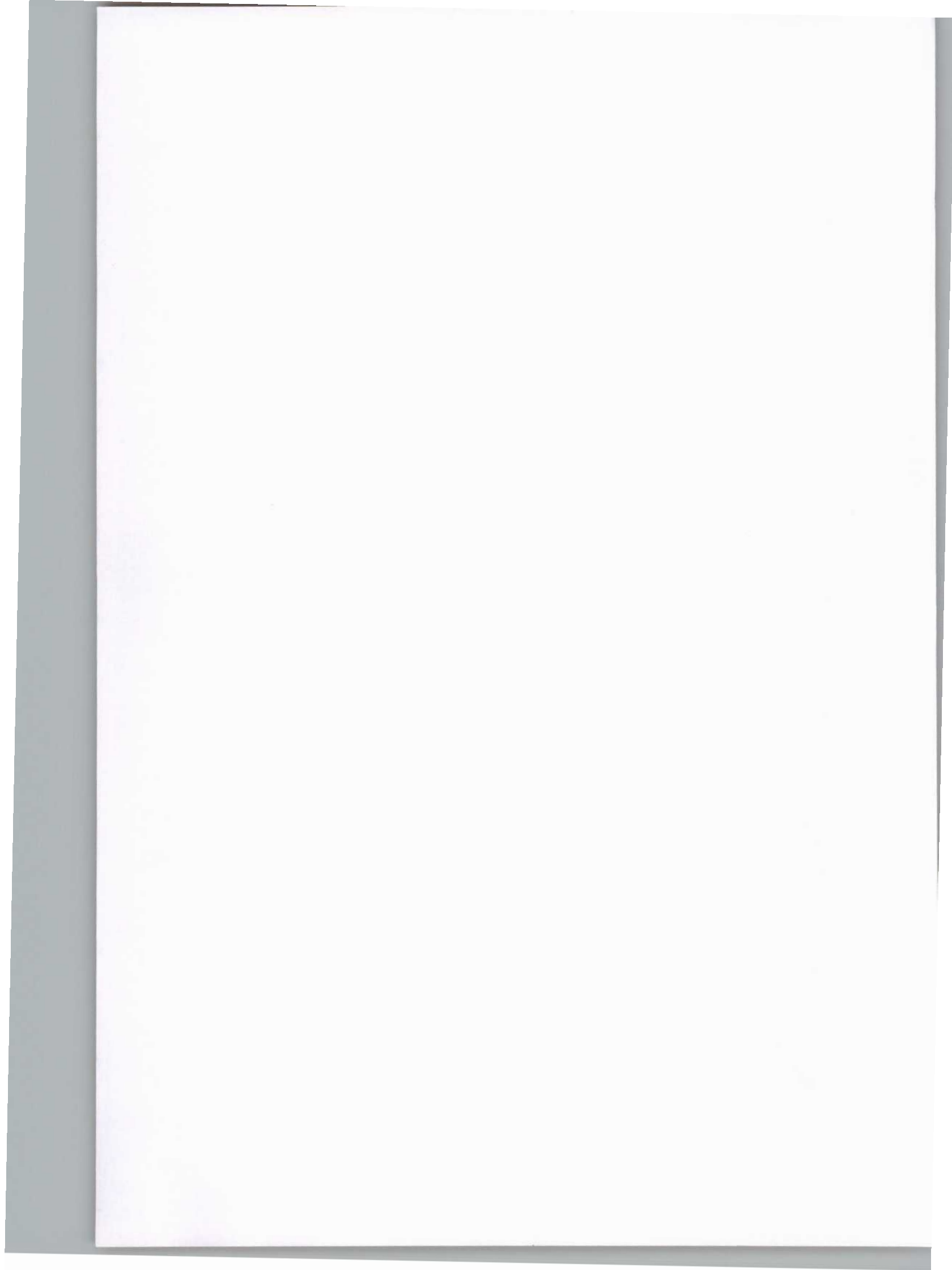
### [Results]

Results of the pre- and post-test on physical activity and psychosocial measures will be presented.

### [Discussion]

Discussions will be focused on the intervention design for future study. Based on the research experience, suggestions for improvement on the research design will be given.

\* I confirm that ethical consideration is given to my research.



# **THE ROLE OF TRADITIONAL CHILDREN PLAY IN FACILITATING KINDERGARTENERS' PHYSICAL AND MOTOR SKILLS DEVELOPMENT**

**Wawan S. Suherman**

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## **Abstract**

Children's physical and motor skills development are complex process, which include not only physical growth but also the maturity of systems, and development of functioning. The purpose of this report is to describe the role of children traditional play in facilitating kindergarteners' physical and motor skills development.

This study employed the research and development approach which was used to develop an instructional model base on traditional children plays. Significant physical growth in quantity changes experience of children, such as height, weight, and body size. There are two terms of development of the children's motor skills, i.e. gross motor movements, and fine motor skills. The process of physical and motor skills development is influenced by a variety of internal and external factors. One important factor that has contributed significantly to children's growth and development is physical activity. One of the physical activities that is known and suitable for children is a traditional children play. Children play helps children develop physically, mentally, emotionally and socially. Children play has an important meaning for physical and motor skills development of children.

There are thirty-two traditional children plays that can be utilize in teaching-learning process at Kindergarten in facilitating physical and motor skills development. By utilizing traditional children play, optimal physical and motor skills development will be experienced by children.

**Keywords:** Traditional children play, physical and motor skills, kindergarteners

## **Introduction**

The childhood is the most important stage of life for human development because the experience of development during that time will determine the development of life in the future. In addition, the childhood is the most developed growth period. Therefore, this period is often called the Golden Age. In order to experience optimal growth in this golden age, children need to have adequate opportunities and a conducive environment provided by parents, educators and the community.

Realizing this, the golden age optimization of children continues to be done by parents, communities, and governments. One of the efforts



undertaken jointly is improving the quality of early childhood education (PAUD). One type of early childhood education (PAUD) is kindergarten (TK). Mansur (2009) states that Kindergarten, Raudhatul Athfal (RA), Bustanul Athfal (BA) is one form of PAUD unit in the formal education channel that organizes educational programs for children aged four years to six years. TK, RA, BA for the next will be written kindergarten (TK).

The care and development process in kindergarten is designed to provide opportunities for children to experience optimal growth. Growing optimally is a learning process that provides opportunities for all developmental potentials to grow in harmony, harmonious, and balanced. One aspect of development that needs to be considered and developed adequately is the motor physics; because the physical aspects of motor is the foundation for growth of other aspects of development.

Payne and Isaacs (1995) state that there are two terms of growth and development of children motor physique which is the motor movement is rough and smooth. Morrison (1988) states that between the ages 3 to 5 years, children still experience rapid growth. Physical growth experiences slowdown between the ages of 5 and 8, while the proportion of body and motor skills of children is getting better. The ability to develop is the ability of gross and finemotor. When aged 5 years, most children demonstrate good control ability to pencil, crayon, and scissors. The achievement of grossmotor skills is characterized by the mastery of jumping movements and holding balance with one leg.

To facilitate the physical and movement skills development of children, it is suitable to be carried out using physical activity. Physical activity that children love and in accordance with the world of children is traditional children play (*Dolanan anak*). Play is a world filled with friendliness, joy, and happiness. Such an atmosphere is often encountered and is expected to occur frequently in childhood. Therefore, it has become a norm and learning when play activities are utilized to the maximum extent possible to develop the physical motor. Willis and Hyman-Parker (2010) state that play is an activity that shows how children learn and assimilate something new into their existing



knowledge or abilities. Saskatchewan Education (1994) outlines that through play, early childhood learning can be achieved. Because play is a key factor in the kindergarten learning process. One type of play activity is the traditional children play or *Dolanan Anak*. Various forms of *Dolanan Anak* are available in DIY, teachers can choose to be used in the learning process adjusted to the needs and abilities of teachers and children to play them. Therefore, the learning process to optimize the development of motor physical children need to use *Dolanan Anak*. Thus, the use of *Dolanan Anak* in kindergarten learning process is an innovation that needs to be done.

Taking note of the above discussions, several research questions can be raised to discuss the answer in this article. The questions are; (1) What is the physical development of physical and motor skills? (2) what is *traditional children play (Dolanan Anak)*? (3) How can *traditional children play* be used as a basis for instructional model to facilitate the development of children's physical and motor skill?

### **Research Method**

This study will develop a model of instructional in kindergarten that utilizes traditional children plays as its base. Therefore, this study uses research and development approach. Borg and Gall (1983: 771-772) states that research and development in education is a process used to develop and validate educational products.

Not all stages of the research and development carried out in this study. This research work is a preliminary study consists of: (1) determination of the product to be produced is drafting a detailed guide on the product description to be generated, and the objectives to be achieved, (2) Literature studies: Examining the theory and the results of relevant research on the products to be produced, (3) Field study: Gathering information through interviews and direct observation to the field. Such information is necessary to strengthen the theoretical basis of the products to be produced, and (4) Development of initial model and expert validation. Thus, this research stage only to generate the initial model.

## **Research Result and Discussion**

After carrying out a preliminary study to (1) establish a model that will be produced, (2) to study literature, and (3) carry out field studies to obtain basic theory and traditional children plays with have the potency to be used in teaching learning process, then the research and development activities continued with carry out the development of initial model, such as:

### **1. Motor Physical Development**

Learning in kindergarten has characteristics that is the process of care and development in accordance with the interests and stages of children development. Mansur (2009) states that learning in kindergarten is based on the developmental task of children that is in line with the stage of its development. Kindergarten learning program is a unity of whole learning activities program. The content of the learning activity program is the learning materials as a means to achieve the ability to be developed. Yuliani N. Sujiono (2009) adds the process of early childhood education using an appropriate approach to the characteristics of early childhood, namely (1) children need oriented, (2) children development oriented, (3) using playing as a medium for learning (4) using active, creative, effective, and fun learning, (5) using integrated learning, and (6) developing life skills.

One of the kindergarten education task is to facilitate the growth and development of all potential students. One aspect of children growth that needs to be facilitated is physical motor. Payne & Isaacs (1995) state that there are two terms of growth and development of children physical motor, the motor movement is gross and fine. Gross motor movements are controlled by muscles or large muscle groups. One of the relatively large muscle groups is the upper limb muscles. The muscles are the parts that produce a series of movements such as walking, running, and jumping. Finemotor movements are usually performed by small muscles or small muscle groups. Many movements done by hand are regarded as fine motor movements because the smaller muscles of the fingers, hands, and palms have an important role to produce the movement of fingers and hands.



Morrison (1988) says that between the ages of 3 to 5 years, children still experience rapid growth. Physical growth experiences retardation between the ages of 5 and 8, while the proportion of body and motor skills of children is getting better. Gross and fine motor skills develop when they are 5 years old, most children demonstrate good control over fine motor skills, such as holding a pencil, crayon, and scissors. The achievement of gross motor skills is characterized by the mastery of jumping movements and holding balance with one leg. Furthermore, Morrison (1988) states that human motor development takes place based on principles:

- ) *Motor development is sequential.*
- ) *Maturation of the motor system proceeds from gross behaviors to fine motor.*
- ) *Motor development is from the cephalo to the caudal – from head to foot (tail). The head is the most developed part of the body at birth; infants hold their heads erect before they sit, and sitting precedes walking.*
- ) *Motor development proceeds from the proximal (midline or central part of the body) to the distal (extremities). Infants can control their arm movements before they can finger movements.*

## **2. Traditional Children Play (DolananAnak)**

One important part of a child's life is playing. Playing is an integral part of children's lives. Garvey (in Wood and Attfield, 2005) considers playing as an attitude or orientation that can be manifested into various forms of behavior. Various possibilities can be realized for what purpose the child is playing, what can be played, and what fantasy can be created. Playing is the main medium and way for learning that is inseparable from children.

One type of playing activity that is wanted and mostly implemented by children is *Dolanan Anak* (children-play). Children-play (*dolanan anak*) is one of the most popular activities in the past, but it has begun to be undermined by technological advances and information recently. In fact, children play has important educational values. Vivi Wijayanti (2008) states that *Dolanan* derives from the word *dolan* that means to play. *Dolan* which means to play gets suffix –an to be *dolanan* (Javanese Noun of to play).

The word *Dolanan* in the verb form is to play and as a noun is a game. Poerwadarminta (in Vivi Wijayanti, 2008) says that *dolanan* means (a) to play, (b) the means used for fun for children, and (c) games.

Dananjaya (1991) states that *children-playanywhere* in the world is usually distinguished by body moves such as running, jumping or based on simple social activities such as chasing, hide and seek, fights or on the basis of basic mathematics or dexterity of hands such as counting or throwing stones to a certain hole or a chancy.

Dananjaya's statement is in line with the thought of Ki Hadjar Dewantara. Ki Hadjar Dewantara (2009) states that ... Some Javanese children games, such as: *dakon*, *cublak-cublak suweng*, and *kubuk*, which educate children to be thorough (*titis pratitis*), deft, clear sight/ vision, and so on. Then also the game, such as: *dakon*, *cublak suweng*, and *kubak* that educates children about the notion of calculation and estimation. ... In addition, *gobak*, *trembung*, *raton*, *cu*, *geritan*, *obrog*, *panahan*, *si*, *jamuran*, *jelungan*, and other sports that will certainly educate the children in terms of: strength and body health, dexterity and courage, visual acuity, and others. Thus, *Dolanan Anak* can be interpreted as a variety of game activities conducted by children to get fun and held in leisure. In addition, children can benefit from the games they play in the form of facilitation of growth and development.

Regarding the above explanation, Ki Hadjar Dewantara states that *Dolanan Anak* has the function or benefit that is important for the growth and development of children. Sukirman Dharmamulya, *et al.* (2) categorizes traditional children games based on the meaning contained to be (1) game that imitates an act, (2) game that tries strength and skill, (3) game that is solely aimed at practicing the five senses, (4) game with language training, and (5) game with motion of the song and rhyme.

Suherman, Nopembri, and Muktiani (2013) collect various types of *Dolanan Anak* to be medium for growing children. After *Dolanan Anak* were collected from five 5 districts/ cities in Yogyakarta, then analyzed to determine which *Dolanan Anak* could be used as a medium for the



development of six aspects of the children development: (1) cognitive, (2) physical-motor, (3) language, (4) socio- emotional, (5) art and creativity, and (6) moral and religious values.

From the six aspects of children development, one aspect of the study is physical motor. By looking at the elements of motion that exist in *Dolanan Anak*, and physical and motor skill characteristics, then the researcher obtained *Dolanan Anak* that can be used to develop the physical and motor skill aspects, namely: (1) *Ambah-ambahlemah*, (2) *Benthik*, (3) *Bethet Thing Thong*, (4) *Blarak-blarak sempal*, (5) *Boy-boynan*, (6) *Dhul-dhulan*, (7) *Engklek/SundaManda*, (8) *Gamparan*; (9) *Gatheng*. (10) *Gobaksodor*, (11) *IngklingGunungan*, (12) *Jamuran*, (13) *Jeg-jegan*, (14) *Jethungan/Dhelikan*, (15) *Jlong-jlingkitiran*, (16) *Kasti*, (17) *KotakPos*, (18) *Kucing-kucingan*, (19) *Lurah-lurahan*, (20) *Sekong*, (21) *Sobyung*, (22) *Tawon-tawonan*, dan (23) *Ular Naga*.

### **3. The Instructional model base on traditional children play**

Laying the groundwork for the development of the children mindset and personality will be largely determined by the learning experience he/she has experienced since in pre-school. The experience received by children through the process of learning in the family environment, community environment, and educational institutions is an important and decisive learning process for the further development of children. Growing knowledge, skills, and attitudes and the nature of the child will depend on what the other child sees, gains, and teaches at an early age.

The growth period in the first five years of a child's life has a very decisive impact on the child's future. Therefore, parents need to provide a nurturing pattern and a conducive environment for the child to have all the potential they have growing in a balanced manner. Teachers should give the learners the opportunity to be fully prepared and experienced. In order for the educational process to go well, Haywood (1986) suggests that teachers understand the influence of environmental factors on child growth. The existence of the environment will determine whether a person's potential can develop further. The environment includes birth process,

nutritional intake, physical environment, and physical activity and regular exercise.

In addition to understanding and preparing the environment, Kelly and Melograno (2004) state that the prerequisite of any effort to maximize children learning is knowledge of children's readiness to learn. The children must be physically, socially, emotionally, and cognitively ready to learn. Children will not learn motor skills, social behavior, self-concept, or intellectual ability, if they are not prepared to do so. Therefore, in addition to paying attention to the environment and readiness of children, education at the initial level should not be concerned only one of the intelligence. All domains or potential intelligence should be given a balanced opportunity to grow and develop next. By providing a balanced opportunity for all potentials to be ready for growth, accompanied by the provision of a conducive environment, and an understanding of the readiness of the child, a firm foundation as a foundation for future growth has been established. A solid foundation is a condition that needs to be possessed by the individual as an adequate foundation for future growth in accordance with the capabilities they have.

Childhood is the golden age of children growing because this is the most crucial or decisive moment for the life of the next child. To optimize the golden age, all parties, especially parents and teachers need to continue to improve the quality of care and development since early childhood. One aspect of child development that needs to be considered and developed is physical motor.

In addition to facilitating other aspects of developmental aspects, physical motor should be a priority to be developed as its development will affect the development of other aspects. Since the children daily life is inseparable from playing activities, physical motor development can utilize physical activity. One form of physical activity is *Dolanan Anak*, well known to children.

In addition it has been well recognized by children and become an integral part of everyday life of children, *Children play* also have many



advantages so suitable to be used as a medium for the development of children physical and motor skills. The benefit of Children play is able to provide an interactive atmosphere, fun, encouraging, challenging, motivating children to play an active role, and provide opportunities for initiative, creativity, and independence of children in line with the talents, interests, and stages of child development.

Yuliani N. Sujiono (2009) recommends that children education process use traditional children play (*Dolanan* child) more as a medium for learning, in addition to other methods and approaches. Moeslichatoen (2004) adds that traditional children play (*Donalan Anak*) has characteristics that matches the characteristics and development of children. Characteristics of traditional children play (children play) is to have various forms of activities that provide satisfaction in children, not serious, flexible, and game materials contained in the activity. *Traditional children play* can be transformed imaginatively commensurate with the world of adults. Traditional children play has an important meaning for the growth and development of children. Yet traditional children play has a very important meaning for the life of children, the use of traditional children play (*Dolanan anak*) is an integral part in the process of physical motor skills development of children.

*Traditional children play* has the function that is amazing for the development of children. As eating-drinking, breathing and sleeping, the *Traditional children play* activities are very important for the health and welfare of children. Without *traditional children play* stimulation, children do not have the appropriate way to experience the development as they should be. Activities in the *traditional children play* are not only instrumental in the physical development of children, but also in their intellectual, linguistic, social, and emotional development (Mayarina and Bahar, tt).

Trawick-Smith (2017) states that the results of the study show that in order for children to achieve motor development and the degree of appropriate fitness to their age, they must actively engage in physical activity. The intensity and duration of movement they do in school, will not be enough to ensure they can achieve the health and fitness levels, as well

as the expected motor development. Therefore, regular and sustained *Traditional children play* plays an important role for the children physical motor development, and their fitness level.

McMaster University (2011) states that physical activity is important for motor development, especially for improving locomotor skills. Research has found that children who spend the most time in moderate to vigorous physical activity tend to have the highest motor skill. This may be because physically active children spend more time learning and improving new motor skills. Children with better motor skills may also find physical activity easier and more fun. We know that motor skills do not always improve naturally. As a teacher, it is important to introduce children to new movements and create opportunities for them to practice. By encouraging physical activity, you not only help children improve their motor skills, but you also help them increase their confidence.

The research of Suherman, Guntur, Dapan, and Muktiani (2016) shows that many kindergartens in DIY are already using *traditional children play* as a medium to facilitate the growth and development of children. The utilization of *traditional children play* in kindergarten teaching learning process is still varied. There are kindergartens who have used it for all teaching learning activities, not only for the growth and development of children, but there is only to develop physical and motor skills with limited condition. One of the reasons presented by the teacher, why the use of traditional children play in the teaching learning process is still limited because the teachers find it difficult to use it and the knowledge of teachers about *traditional children play* is still limited.

Observing and realizing that *traditional children play* is beneficial for the development of physical motor, but some kindergarten teachers still face obstacles to take advantage of *traditional children play* in the teaching learning process, it is necessary to formulate an instructional model based on *traditional children play*. The research team, Suherman, Guntur, Dapan, and Muktiani (2017) are conducting research with the title "Development of an instructional model base on *traditional children play* to facilitate the

kindergarteners' physical and motor skills development". This study aims to develop an instructional model base on traditional children play that can be utilized by kindergarten teachers to facilitate the development of physical and motor skills kindergarteners. With this instructional model, it is expected the difficulties of kindergarten teachers to take advantage of traditional children play in the teaching-learning process can be overcome. For the first phase, this research try to explore traditional children play that are suitable with the characteristic and aspects of physical and motor skills development. It is believed that traditional children play helps children develop physically, mentally, emotionally and socially. Traditional children play has an important meaning for physical and motor skills development of children.

After analyzing the collected traditional children play by contrasting and pairing to aspects of physical and motor skill, there are thirty-two traditional children plays that can be utilize in teaching-learning process at Kindergarten in facilitating physical and motor skills development. Then, the chosen thirty-two children's traditional plays are chosen to form the basis for drafting the instructional model. By utilizing traditional children play, optimal physical and motor skills development will be experienced by children.

## **Conclusion**

Physical motor skill is one aspect of the development of kindergarteners. Because physical motor skills development will affect the development of other aspects, the development of physical and motor skill needs to be developed since early childhood. Thus, physical and motor skill development is an effort that needs to be prioritized by parents, educators, and society.

One inseparable part from children world is playing. One type of activity is *traditional children play*. Physical motor skill is an important potential for children to develop, while *traditional children plays* an integral part of children therefore in the development of physical motor skill of children will be better results when using a *traditional children play* as its medium. *Traditional children play* is very appropriate medium for the development of physical and motor skills because children already know and *traditional children play* have



various values and characteristics that fit to the needs of physical and motor skills development of children.

There are thirty-two traditional children plays that can be utilize in teaching-learning process at Kindergarten in facilitating physical and motor skills development. Then, the chosen thirty-two children's traditional plays are chosen to form the basis for drafting the instructional model.

## REFERENCE

- (1) Dananjaya, James. (1991). *Folklore Indoensia*. Jakarta: PT. Grafiti
- (2) Gardner, Howard. (2003). *Multiple intelligences (Kecerdasan majemuk: Teori dalam praktik)*. Alihbahasa: Drs. Alexander Sindoro. Batam Center: Penerbit Interaksara.
- (3) Guddemi, Marcy. (2009). "The Role of Play in an Overly-Academic Kindergarten". *Gesell Institute of Human Developmen, New Haven, CT. NAEYC Washington, DC 2009*. Downloaded May 3rd, 2010. <http://www.NAEYC2009/Play/Handout.pdf>.
- (4) Haywood, Kathleen M., (1986). *Life span motor development*. 2<sup>nd</sup> ed. Champaign, IL.: Human Kinetics.
- (5) Hoerr, Thomas R. (2007). *Becoming a multiple intelligences school (Bukukerja multiple intelligences)*. Translator: Ary Nilandari. Bandung: Penerbit Kaifa.
- (6) Kelly, L.E., &Melograno, V.J. (2004). *Developing the physical education curriculum: An achievement-based approach*. Champaign, IL.: Human Kinetics.
- (7) Ki Hadjar Dewantara. (2009). *Menuju manusia merdeka*. Yogyakarta: Leutika.
- (8) Mayarina, Iriani dan Bahar, Irawati. (tt). *Seri Ayahbunda: Bermain dunia anak*. Jakarta. hal 1 – 145.
- (9) McMaster University. (2011). "Preschool focus: Physical activities and physical skills development". *Child health & exercise medicine program. Issued 3, July 2011*. Diunduh tanggal 8 Oktober 2017 dari <https://fhs.mcmaster.ca>.
- (10) Moeslichatoen R. (2004). *Metode pengajaran di taman kanak-kanak*. Jakarta: Rineka Cipta.
- (11) Santrock, John W. (2007). *Psikologi pendidikan*. Edisikedua. (terjemahan Tri Wibowo B.S.) Jakarta: KencanaPrenada Media Group.

- (12) Suherman, W.S., Nopembri S., dan Muktiani, N. (2013). "Pengembangan Majeda untuk mengoptimalkan Tumbuhkembang Anak Taman Kanak-kanak". *Laporan Penelitian*. LPPM UNY.
- (13) Suherman, W.S., Guntur, Dapan, dan Muktiani, N. (2016). "Pengembangan Majeda berbasis Dolanan anak untuk mengoptimalkan Tumbuhkembang Siswa TK". *Laporan Penelitian*. LPPM UNY.
- (14) Suherman, W.S., Guntur, Dapan, dan Muktiani, N. (2017). "Pengembangan Model Pembelajaran berbasis Dolanan anak untuk mengoptimalkan Pengembangan Fisik Motorik Siswa TK". *Laporan Penelitian*. LPPM UNY.
- (15) SukirmanDharmamulya, dkk. (1981/1982). *Permainan Anak-anak Daerah Istimewa Yogyakarta*. Jakarta: Dekdikbud.
- (16) Trawick-Smith, Jeffrey Dr. (2017). "The Physical Play and Motor Development of Young Children: A Review of Literature and Implications for Practice". *Center for Early Childhood Education Eastern Connecticut State University*. Diunduh 8 Oktober 2017 dari <http://www.esternct.edu>.
- (17) Vivi Wijayanti. (2008). "Nilai Pendidikan dalam Dolanan Anak" Skripsi. FIB UI diunduh pada 4 Desember 2013 dari <http://lontar.ui.ac.id>
- (18) Willis, J.E., and Hymon-Parker, S. (2010). " Expanding multicultural activities across the curriculum for preschool". Diunduh pada 16 maret 2010 dari: <http://www.kon.org/urc/v5/willis.html>.
- (19) Wood, Elizabeth, and Attfield, Jane. (2005). *Play, learning and the early childhood curriculum*. 2<sup>nd</sup> ed. London: Paul Chapman Publishing.
- (20) Yuliani N. Sujiono. (2009). *Konsep dasar pendidikan anak usia dini*. Jakarta: PT. Indeks.