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Development of an outdoor play-based learning model to train gross motor skills in early childhood

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Abstract

Study objectives Researchers realize that children's motoric learning is often neglected or forgotten by parents, mentors or even teachers themselves because the orientation is still in the cognitive aspect andTeachers do not yet understand that the development of motor learning is an inseparable part of children's lives. This research aims to identify the development of gross motor skills in early childhood using an outdoor play approach. This research uses a quantitative approach in testing the validity of the content as well as the construct and effectiveness of the educational model. The experimental subjects in this research were early childhood children, totaling 26 respondents in Yogyakarta, Indonesia. Data analysis for small scale trials and large scale trials uses path analysis of the reliability coefficient categories. The paired illustrative t test was used to analyze the effectiveness of developing gross motor skills. The results of this research are an educational model that uses an outdoor play approach to improve aggressive motor skills in the form of a novel guide. The model developed in this research can train gross motor skills and will influence the cognitive, affective and psychomotor learning outcomes of early childhood students. So the learning model is easy to understand, comfortable, and makes early childhood students more enthusiastic about studying.

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INTRODUCTION

Learning based on outdoor play can develop the gross motor skills of early childhood. Apart from that, learning based on outdoor play can also stimulate cognitive, affective and psychomotor aspects. Outdoor play-based learning is a proud game of choice because it is able to attract the interest of young children and is also rich in values and strengthens the behavior of early childhood students. Learning activities for early childhood prioritize playing while learning and learning while playing. Playing naturally motivates children to know something more deeply, and children spontaneously develop their abilities (Masitoh, 2011).

Apart from emphasizing play-oriented learning, early childhood learning also emphasizes development-oriented learning (Eliason & Jenkins, 1994). Early childhood is a period of five main years, this period is the golden period of child development called the golden years. Children at this age have the potential to be able to optimize all aspects of development, including the development of motor skills, which means the development of motor skills as an element of maturity and control of body movements in early childhood.

Children aged 4-6 years have high energy. Energy is needed to carry out various activities needed to improve physical skills, both related to improving gross motor skills, such as running, jumping, hanging, throwing a ball or kicking it, as well as fine motor skills, such as using fingers to put together puzzles, picking back, and arrange them into certain buildings. Evidence shows that motor skills are associated with various health outcomes in early childhood (Robinson et al., 2015). This is related to involvement in physical activity (Holfelder & Schott, 2014; Lopes, Rodrigues, Maia, & Malina, 2011; Vandorpe et al., 2012), fitness (Cattuzzo et al., 2014; Rivilis et al., 2011; Sigmundsson & Haga, 2016), body weight and obesity (D' Hondt, Deforche, De Bourdeaudhuij, & Lenoir, 2009; D'Hondt et al., 2011; Hendrix, Prins, & Dekkers, 2014).

We currently live in a time of growing concern regarding low levels of physical activity and health-related problems in young children. Sedentary lifestyles are a global problem (Directorate 2014; Gray et al., 2015; WHO 2010). Research shows that preschoolers' physical activity levels tend to persist throughout the preschool throughout the day (Brown et al., 2009; Dowda et al., 2004; Gubbels et al., 2011;Tucker, 2008). It has been proven that physical activity can improve health, provide energy and is an important means of preventing various forms of lifestyle diseases (Directorate, 2014).

Activities are influenced by cultural differences in sports activities such as policies and routines in sports learning. Furthermore, when compared with normative scores, children from these two countries had worse scores than the scores obtained by children 40 years ago. It is a fact that children's motor competence is a global issue and is influenced by the increasing behavior of children who sit more and the decrease in children's physical activity. Even children aged 3 to 7 years in Belgium have lower abilities when measured using the Test of Gross Motor Development, Second Edition (TGMD-2) compared to children from the United States (Bardid et al., 2016). Chow, Henderson, and Barnett (2001)

Based on the results of research, early childhood needs more mature direction for those aged over 4 years, channeling it through various physical activities, both physical activities related to gross motor skills and fine motor movements. By mastering motor skills, children will have a healthy body condition because they move, they will

also be more independent and confident.

Starting from these realities and concerns, researchers try to find solutions to solve them by providing inspiration that can be used as a model for developing outdoor play-based learning that suits the characteristics of early childhood. Children who play outdoors are generally fitter than children who spend more time just indoors. Children who play in nature zones also show improvements in motor skills, coordination, balancing, etc significant dexterity (Fjotoft, 2001).

This research implies that using an outdoor play approach in teaching physical activity learning to young children can develop gross motor skills and effective responses to the dynamics and complexity of play.

METHODS

This research is research and development. This research develops products used in learning approaches using early childhood children. According to (Daryono et al., 2021; Healy et al., 2020; Huang et al., 2020; Mingaleva & Vukovic, 2020), research and development is referred to as procedures or methods used to create and test the effectiveness of a particular product. . Therefore, this research aims to improve learning with an outdoor play approach to develop the motor skills of young children in Yogyakarta as the data used in conducting this research.

Multiple choice guided by the teacher (Harsya W.Bachtiar, 1993:112) 1) three answer choices that lead to indicators of aggressive motor skills totaling 10 questions; 2) Validation sheet, carried out by two experts, namely: the instrument expert is given to validate the test instrument and the evaluation expert is given to validate the assessment of outdoor play and aggressive motor skills. Furthermore, validation was carried out by three sports teachers to determine the practicality and response of teachers as teachers in the school environment (Riyanto & Widiyanto, 2021).

RESULT

1. Model Feasibility Test Results
   a. Small Scale Trials

The next research process is testing the feasibility of the model in small-scale play groups. This trial was carried out on early childhood students in Yogyakarta in the January-February 2024 period. This trial was carried out using a sample of 23 early childhood children with assessment assistance by 2 teachers.

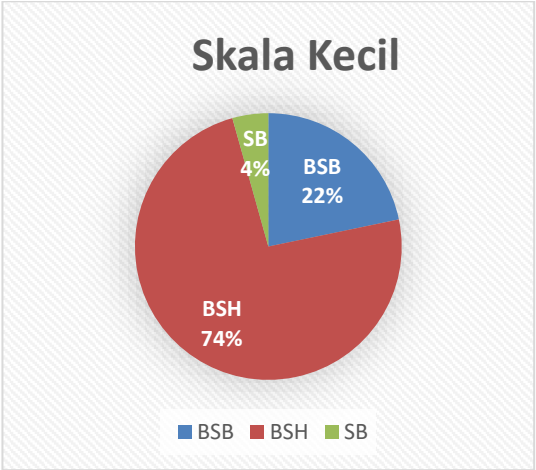

Figure 1. Diagram of Small Scale Feasibility Test Results

Based on the data above, overall there were 5 children or 22% who received the Very Well Developing (BSB) criteria, 17 children or 74% received the Developing According to Expectation (BSH) criteria, and there was 1 child or 4% who received the Already Developing criteria (SB). This value means that the average feasibility of the large-scale model is within the criteria of developing according to expectations (BSH) and developing very well (BSB) at 96%

In the small-scale trial stage, suggestions and improvements were

obtained for revision at the next stage. After these suggestions and revisions are carried out, large-scale trials can be carried out.

b. Large Scale Trials

Large-scale trials are carried out after product revisions. Large-scale trials were carried out on early childhood in Yogyakarta. A large-scale trial was carried out with the participation of 25 kindergarten students and 2 accompanying teachers. The accompanying teacher has the function of assessing the motor skills improvement of early childhood students. The results of large-scale trials can be seen in the diagram below:

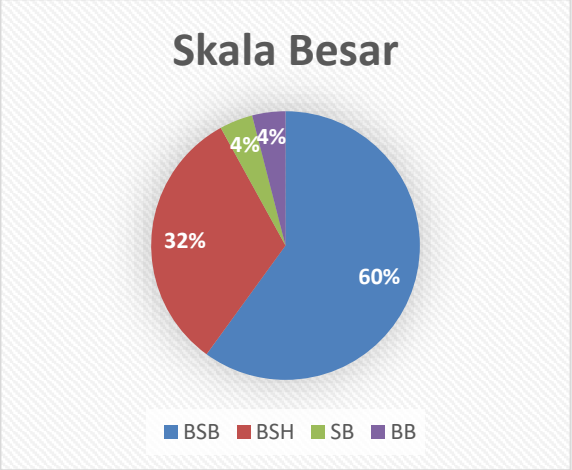

Figure 2. Diagram of Large-Scale Feasibility Test Results

Based on the data above, overall there were 15 children or 60% who received the Very Well Developing (BSB) criteria, 8 children or 32% received the Developing According to Expectations (BSH) criteria, there was 1 child or 4% who received the Already Developing (SB) criteria.), and there was 1 child or 4% who received the Undeveloped (BB) criteria. This value means that the average feasibility of the large-scale model is within the criteria of developing according to expectations (BSH) and developing very well (BSB) at 92%. So the outdoor play model is suitable for early childhood gross motor development.

DISCUSSION

This research examines the relationship between outdoor play models and improving the motor skills of young children. The advantages of the outdoor play educational model can be seen from the attractiveness of the model for children to play. Varied and gradual activities help children apply motor activities independently at home. Activities consist of stages from easiest to most difficult so they are safe for children. Activities also help children to activate all abilities and have been adapted to the child's age level. The activities in the model consist of opening, core and cool-down activities.

Playing outdoors, such as kicking and passing a ball, apart from training children's gross motor skills, can also help develop cognitive abilities in line with research results (Nurhayati & Putro, 2021). The research results of Wahyuni & Azizah (2020) are in line with research. This model can improve gross motor skills and also help explore new things, new knowledge insights for children (Justicia, 2017). One of the responses given by children after implementing this learning model was that children became more enthusiastic in participating in activities. Children also become more active in motor activities and experience increases in agility, dexterity and dexterity.

The outdoor play learning model of kicking and passing the ball contributes to helping develop gross motor skills in young children. This is in accordance with the research results of Novitasari et al. (2019).

Playing can improve children's aggressive motor skills, research using the hula hoop model. The more children play,

the more their gross motor skills will be trained. Activities in this model consist of opening, core and cool-down activities. If this activity is carried out regularly it will have a positive impact on children, this is in accordance with research (Rohmadi, 2021); (Djuanda & Adpura, 2020) the more often children do activities like this, the more rapid their physical motor development will be. This research develops aspects of balance, agility, strength, endurance, speed, coordination and accuracy in accordance with (Mendikbudristek, 2022) where one one of the six aspects of child development, namely physical motor skills.

Standards for the level of achievement of early childhood growth are also contained in the Government Regulation of the Republic of Indonesia No. 4 of 2022 which also supports this. The outdoor education model of kicking and passing the ball not only improves children's motor skills, it can also improve other aspects such as social emotional and cognitive (Cordiano et al., 2019); (Murphy, 2022); (Lubis, 2019); (Junaedah et al., 2020); (Stevens et al., 2020). The most important thing is that implementing the outdoor play model of kicking and passing the ball creates an atmosphere of excitement (Zhang et al., 2022).

CONCLUSION

This research shows that in general the motor skills of early childhood students have increased after implementing learning using the outdoor play model. Early childhood students begin to know and understand how to develop motor skills through outdoor play. Furthermore, early childhood students begin to be happy and enthusiastic about motor learning.

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