

The Effectiveness of Play on Pre-School Motor Children

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Abstract

Pre-schoolers are children who are still developing and growing. In reality, most children's motor skills are still developing. Hence, more activities are required to support children's motor skill development. Engaging in play activities can promote the growth and development of youngsters. The objective of this study is to ascertain, evaluate, and compile the existing data from research on play activities that benefit pre-schoolers motor abilities. This type of research uses literature studies. The database in this study with article criteria derived from *sinta* 2-5 indexed journals using online database/search engine. Sixteen publications derived from the last five years and related to the focus of this research were assessed. The impact of play on kids motor abilities is the main topic of this study's examination. Sixteen studies that matched the criteria were discovered in the database search result. Based on the review findings, it can be concluded that play activities affect pre-schoolers motor skills. Overall, the reviews of all the articles show that children's motor abilities can be developed through play. Through various fun play activities that are modified according to the child's age and abilities in order to improve their motor skills.

Keywords: Motor skills; play activities; physical development; pre-school children

1. Introduction

At the pre-school age of 3-6 years, when children are growing and developing, it is crucial. The development of a child's cognitive and motor abilities accelerates as they approach pre-school age (Indrawan, 2020). Gross motor development and fine motor development are the two distinct phases of a child's physical development (Aguss, 2021). Whereas fine motor development involves the development of coordinated movement activities from several body parts (Karela et al., 2020). Preschoolers typically enjoy activities that they can complete alone, are physically capable, and are very active.

Preschool-aged children go through the "golden age" phase of child development, when their physical and psychological development will respond to many activities that take place in their environment. Right now is the optimum time to develop a variety of skills and aptitudes, including fine and gross motor, social, emotional, and cognitive. Although a child has some areas of development that require attention due to developmental delays. The factors that affect growth and development include the environment, stimulation, and nutrition (Sholikhah & Tuah, 2021). Children require stimulation in order to grow and develop as best as is feasible for their age. Play

activities are one activity that energizes kids so that growth and development issues do not arise (Sari & Rafita, 2020).

Play activities are one of the suggestions for optimizing child development (Panzilion et al., 2020). Through play, children explore socially and emotionally and expand their imaginations, creative energies, and cognitive capacities (Birriy et al., 2020). Facilitating a child's motor development through play is inherent in early childhood. Play helps children understand what is relaxed, what is relaxed without coercion, and it also helps children feel safe and engaged in all the activities they do. It can boost your child's confidence (Sari & Rafita, 2020). Several studies have shown a positive association between play activity and improved motor performance (Panggi & Komaini, 2020). This depends on what the child likes and should be adjusted according to the child's age and abilities. This activity helps you learn basic movements like crawling, jumping, running and throwing. Playing can also improve physical fitness, for example in terms of strength, speed and endurance, balance, and elasticity.

Play activities can also develop imagination, focus, make decisions, conclude things, be alert when doing something, be able to solve things immediately and find options to solve problems. Games can build social values in children, this is because games often require coordination with friends, and understanding each other. Play can also have an impact on emotional changes, so that a child can express all emotions and reduce the problems he faces. Through play encourages children to think creatively (Adimayanti et al., 2022).

Preschool is a critical time for a child's motor development. Therefore, teaching children a variety of motor skills helps develop fine and gross motor skills. A child's ability to move small muscles at will indicates the development of fine motor skills. Children's fine motor skills dominate in writing activities (Widayati et al., 2019). Writing and sketching require proper use of your hands and fingers, and this requires good fine motor skills. It focuses on the ability to coordinate hands and eyes (Erlianda et al., 2019). According to Sujiono et al., (2018), gross motor development on the other hand is reflected in the child's ability to coordinate body movements. This can be achieved through various activities that use the muscles of the body such as walking, running, jumping and climbing. Physical skills can be developed through fun games for children (Andriani & Malinda, 2022).

Based on the above problems, researchers conducted a literature review to find out more about the effectiveness of play for the development of motor skills in preschool children. Based on the facts and problems above, the author wants to make a review article to find out how effectively play activities affect the motor development of preschool-age children.

2. Method

This research uses a literature review method. The literature review is research that highlight several important findings from previous studies and analyses what is written in the text. The data collection technique in this research used an internet database by focusing on articles that are relevant to this research. The data is secondary because the researcher did not go directly into the field. Please note that the procedure for searching for articles relevant to this research is to use the Sinta database with the help of Google Chrome and Google Scholar. The process of article searching used keywords of this research. A total of 56 articles were found in the article searching process, but only 16 articles were used as references by researchers for conducting reviews. This is because 40 articles were not included or needed in this study for the following reasons: 1) 22 articles published in 2016, and 2) 18 articles did not discuss the variables in this study at all. The researcher also emphasized that all data used for this research was sourced from the national database or SINTA with provisions for the last five years, so its existence is still relevant today.

3. Result

Sixteen articles are the author's primary reference source in completing the research assignments listed in Table 1 because the articles in the table below provide the research database. The 16 articles have several components that need to be included in the table below: 1) Author's name and year of publication, 2) Publisher, 3) Method, and 4) Study Result. The following is an explanation of the article being reviewed:

Table 1. List of journal literature review articles

Source	Author's Name and Year of Publication	Publisher	Method	Result
1	Tiara Erianda, Ahmad Fauzi, & Khairul Amri (2019)	Atfaluna: Journal of Islamic Early Childhood Education	Descriptive Statistic	The results showed that children's motor skills improved after being given writing activities on the sand in the B2 group of Darul Muhliah Integrated Islamic Kindergarten.
2	Risella Amelia Silanindah, Heri Yusuf Muslihin, & Risbon Sianturi (2022)	Jurnal Pendidikan Anak Usia Dini Undiksha	Quasi-Experiment	In early childhood, especially for children aged 5-6 years, the traditional Batok Egrang game can be used as a treatment to improve the physical development of gross motor skills.
3	Nur Rahmi Idris, Herman, & Parwoto (2022)	AWLADY: Jurnal Pendidikan Anak	Quasi-Experiment	The results showed a significant increase in fine motor skills of children aged 4 to 5 years when given the treatment of paper quilling activities from the first, second and third meetings.
4	Tantri Wenny Sitanggang, Dewi Anggraini, & Intan Puspitasari (2022)	Jurnal Medikes (Media Informasi Kesehatan)	Pre-Experiment	The results showed that puzzle therapy affected fine motor development in preschoolers aged 3-5 years.
5	Uswatun Hasanah Masra Tangse, & Dimiyati (2022)	Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini	Quasy Experiments	Learning at the kindergarten level, a suitable and effective core activity is the relay game. Because games contain elements of physical activity that can improve children's motor skills. When children participate in the relay, children will get new and interesting experiences while playing, which increases enthusiasm. Relay games not only improve a child's motor skills, but are also very helpful in helping children wait patiently for their turn.
6	Dessi Andriani, & Hera Malinda (2022)	Wahana Didaktika: Jurnal	Quasi-Experiment	The results showed that the sack running game affected the

Source	Author's Name and Year of Publication	Publisher	Method	Result
		Ilmu Kependidikan		motor skills of Muara Enim State Guidance Kindergarten children.
7	Dinna Islammeiliani, & Khamidun (2017)	Early Childhood Education Papers (Belia)	Pre-Experimental	The results showed a significant difference between children's motor skills before and after construction play.
8	Ribkha Itha Idhayanti, Rhela Panji Raraswati, Arfiana, & Bambang Sarwono (2022)	Jurnal Sains Kebidanan	Quasy Experiments	The results showed that the advancement of fine motor skills was significantly improved before and after the administration of mosaic and puzzle materials. In children's motor enhancement, the use of mosaic and puzzle learning is equally effective.
9	Harsismanto J, Agus Ramon, Remo Putrawan, Padila, & Juli Andri (2021)	Jurnal Kesmas Asclepius	Quasy Experiments	The results showed that plasticine and painting games found differences in effectiveness on motor development of preschool children. Finger painting games are more effective in developing fine motor skills of preschool age.
10	Adella Kharisma Diyenti, & Rakimahwati (2019)	Journal of Nonformal Education	Experiment	The results showed that traditional games had an impact on the physical and motor development of Mutiara Bunda kindergarten children in 50 sub-districts of the city.
11	Mawan Setiawan, & Katrina Feby Lestari (2022)	Jurnal Skolastik Keperawatan	Quasy Experiments	Origami games might affect the soft motor development of preschool children.
12	Steffi Claudia, Ajeng Ayu Widiastuti, & Mozes Kurniawan (2018)	Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini	Partisipatory Action Research (PAR)	As a result, it was found that children's fine motor skills are improved through origami games.
13	Ersa Srivi Wulan Suci, & Syahrul Ismet (2020)	Jurnal Pendidikan Tambusai	Quasy Experiments	Based on the analysis of the results of both the hypothesis test and the affective or rotating ball game enhances children's gross motor skills.
14	Eva Oktaviani & Imawan Eko Setiyono (2022)	Aulad: Journal on Early Childhood	Research and Development	The development of smart book educational game tools is considered very good and worthy of being used as a medium for stimulating early childhood motor skills.
15	Hendra Mashuri, M. Adam Mappaompo, Palmizal A, Taufik Rahman, Andi Saparia, & Juhanis	Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini	Experiment	The findings demonstrated how altering simple movement games using a circuit training method influences young children's gross motor skill

Source	Author's Name and Year of Publication	Publisher	Method	Result
16	(2022) Agustina Budiarti, Anik Lestaningrum, & Isfauzi Hadi Nugroho (2020)	Child Education Journal	Descriptive Qualitative	development. The results showed that children's motor development increased by doing newsprint squeezing play activities.

4. Discussion

Early childhood education is one type of education that emphasizes laying the groundwork for intellectual development (thinking, creativity, emotional intelligence, spiritual intelligence), socio-emotional development (attitudes and behavior, and religion), language development, and communication, in accordance with the distinctiveness and developmental stages experienced by early childhood (M. H. Idris, 2020). We can encourage children's growth and development through play (Anggita et al., 2018). To complement each activity, it is crucial to teach shapes and colors in play activities while also fostering children's imagination, motor skills, cognitive abilities, and socialization.

Based on the review article, research conducted (Erlianda et al., 2019) showed that in improving children's fine motor skills, writing games on sand were used. It can be observed that children's fine motor skills are increasing day by day after applying the process of learning to write on sand in children. The child's finger muscles are more flexible, so they begin to develop and practice gradually. The child's finger muscles have increased flexibility and are not stiff when the child moves his fingers while writing in the sand. A study conducted by Setiawan & Lestari (2022) stated that origami games might affect the soft motor development of preschool children. Through origami paper games, children's fine motor skills from the first cycle stage have increased in the second cycle stage (Cllaudia et al., 2018). Other play activities with newspaper squeezing activities. This activity is effectively used in improving children's fine motor development according to the stages of child development (Budiarti et al., 2020). In line study by Idris et al., (2022) shows that when 4-5 year olds get paper quilling practice at the first, second, and third meetings, their fine motor skills improve significantly. Therefore, children's fine motor skills can be improved by paper quilling activities.

In other articles, the use of playing activities with puzzle media also showed significant results. Sitanggang et al. (2022) found that puzzle games have an effect on the fine motor skills of preschoolers. Other study also found that the development of fine motor skills was significant before and after distributing mosaic and puzzle materials (Idhayanti et al., 2022). The use of mosaic and puzzle learning environments has the same effect in improving children's fine motor skills. Puzzle and mosaic playing activities can be used for the learning process and can be applied at school or at home. Children become more interested and active in participating in puzzle and mosaic activities.

Providing play forms of physical activity also positively impacts children's gross motor skills. Experiments on different game activities, namely the relay game show that relay is an effective activity and is suitable for carrying out learning activities because the element in the relay game is physical activity in improving the gross motor skills (Tangse & Dimiyati, 2022). Previous study was performed by Mashuri et al., (2022) using physical activity such as circuit training method for gross motor development. Providing rotational ball play also improves gross motor skills (Suci & Ismet, 2020). In another experiment using sack running, Andriani & Malinda (2022) also found that kindergarteners' gross motor skills can be affected by sack running.

Other play activities also have a significant impact on children's motor development such as traditional games, research conducted by Diyenti & Rakimahwati (2019) shows that traditional play has an effect on children's physical and motor improvement. After being introduced to a variety of traditional games, it is clear that kids enjoy them, enjoy playing with their friends, and are better able to develop their gross motor and fine motor skills. Examples include being able to jump repeatedly quickly, adjust their balance, work together with friends, and draw lines or graffiti on the ground with wood. In early childhood, especially for children aged 5-6 years, the traditional Batok Egrang game can be used as a treatment to improve the physical development of gross motor skills (Silanindah et al., 2022).

According to Harsismanto et al. (2021) in plasticine games with finger painting, there were differences in effectiveness in developing fine motor skills of preschoolers. As in research by Islammeiliani & Khamidun (2017) there is an influence between before and after constructive block play on fine motor skills of children aged 4 to 5 years. Fine motor improvement can be stimulated by, such as teaching methods, types of activities and learning media, one of which is by providing the type of ongoing learning activities, namely constructive block play. Innovative educational game media is needed in early childhood learning activities. Smart book educational games as fine motor stimulation for children can have a positive influence on children's optimal growth and development (Oktaviani & Setiyono, 2022).

The game method gives children the opportunity to develop their creativity, their creative reserves. Children can express their knowledge of the world and acquire new knowledge at the same time. Modified game activities can encourage children to participate in physical education, make them happy and improve their physical abilities. However, children's stimulation series should be designed to be adjusted according to the child's stage of growth and development so that the child can keep up with the game.

5. Conclusion and Recommendation

In preschool age, using the game activity approach is a successful way to teach motor skills so that kids can learn more, socialize with their classmates, and play unrestrictedly without feeling pressure. Children's motor skills can be encouraged through a variety of games that can be adapted to each child's age and ability. Researchers suggest that for children's motor development to develop optimally, formal and informal motor development should be supported through appropriate play and guidance from parents, family members, or teachers. Play activities and play variations should also be added to group or preschool activities.

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