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# RESEARCH ARTICLE

# Evaluating the Impact of Play Behavior on Preschoolers' Motor Skills Development

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# ABSTRACT

Skills development of preschool-aged children, focusing on how different types of play influenced their gross and fine motor skills as a basis for an action plan. This study utilized a descriptive correlational design and a survey questionnaire. The research involved 103 preschoolers. Data collection considered various play behaviors. The analysis also took into account parental education levels and family dynamics, such as the number of siblings, to understand their potential influence on children's play and development. The data gathered were statistically treated using frequency, percentage, weighted mean, and Pearson Correlation Coefficient (r). Findings revealed that parents had completed high school or college education, which might contribute to shaping the home environment and access to development resources. The number of siblings per participant typically ranged from one to two, potentially influencing the nature of cooperative play opportunities. The motor skills analysis indicated that the children demonstrated high proficiency in both gross motor skills and fine motor skills. Despite this, statistical analysis revealed no significant correlation between play behavior. This suggested that while children engaged in various types of play, these activities did not have a statistically. It is recommended that the output of this study be adopted.

## **KEYWORDS**

Early childhood education, play behavior, motor skills, Social Play, Play-Based Learning

## **ARTICLE INFORMATION**

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### 1. Introduction

Early childhood is a critical window for foundational learning and development, with play recognized as a universal and essential medium through which children explore, learn, and grow. Play is not merely leisure; it represents a primary vehicle for the acquisition of social, cognitive, and motor competencies (Ginsburg, 2019; Walker, 2020). Studies have demonstrated that rich, varied play experiences during preschool years can support neural development, foster creativity, and lay the groundwork for lifelong health and well-being (Adolph & Hoch, 2019; Pellegrini & Smith, 2020). In particular, physical and manipulative play forms have been linked to improvements in coordination, strength, and balance, all of which are integral to children's autonomy and readiness for school (Piek et al., 2008; Barnett et al., 2016). The Crossing Bayabas Child Development Center 1 provides an opportune context to examine these relationships, as it offers a diverse environment combining structured routines with opportunities for free play and guided motor activities.

Motor development in preschoolers encompasses both gross motor skills such as running, jumping, and climbing and fine motor skills, including drawing, cutting, and manipulating small objects (Case-Smith, 2005; Cheraghi et al., 2021). These skills do not emerge in isolation; they are shaped by the interplay between biological maturation and the social and physical environments in which children are embedded (Adolph & Franchak, 2017; Adolph & Hoch, 2019). Contemporary research emphasizes that early motor proficiency is predictive not only of later physical competence but also of social confidence and academic achievement

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(Robinson et al., 2015; Logan et al., 2012). Thus, understanding how specific types of play behavior relate to motor outcomes is central to informing evidence-based early childhood practices.

Different play behaviors offer distinct contributions to motor skill development. Solitary-active and rough-and-tumble play, for example, provide rich opportunities for gross motor engagement, allowing children to refine locomotor patterns and build core strength (Karaca & Uzun, 2020; Pellegrini & Smith, 2020). Conversely, solitary-passive play and manipulative activities such as puzzles and drawing are strongly associated with the development of fine motor precision and hand-eye coordination (Barnett et al., 2016; Webster et al., 2020). Moreover, social play contexts contribute to motor development by introducing modeling, peer feedback, and the negotiation of shared goals (Ginsburg, 2019; Coplan et al., 2004). This multifaceted landscape underscores the need for studies that systematically examine the relationships between diverse play behaviors and motor competence.

Research in the Philippine context remains limited, despite the country's commitment to early childhood education through national frameworks and initiatives, such as the Early Years Act of 2013 and programs supported by UNICEF Philippines (Council for the Welfare of Children, 2011; UNICEF Philippines, 2017). Traditional games and unstructured outdoor play have long been embedded in Filipino culture, yet urbanization and increased screen time are altering children's daily experiences (Maulidiyyah & Purwoko, 2023; Tan et al., 2020). As such, there is an urgent need to evaluate how contemporary play patterns encompassing both traditional and modern forms impact motor development within local child development centers like Crossing Bayabas.

Prior studies have highlighted that the relationship between play behavior and motor skills is nuanced and context-dependent. For instance, Foweather et al. (2021) found that foundational movement skills in preschoolers are associated with the proportion of time spent in active play during recess, while Tortella et al. (2022) showed that partly structured playground activities can improve motor competence more effectively than free play alone. Similarly, Ethridge et al. (2024) identified barriers and strategies for fostering play in virtual learning environments, illustrating the evolving challenges faced by educators. These findings collectively emphasize the importance of tailored interventions that balance structured skill-building and unstructured exploratory play to optimize motor development outcomes.

The present study aims to evaluate the impact of play behavior on the development of gross and fine motor skills among preschoolers enrolled at Crossing Bayabas Child Development Center 1. By systematically assessing the prevalence of reticent, solitary-passive, solitary-active, social, and rough play behaviors and correlating them with teacher ratings of motor competencies, this research seeks to generate evidence that can inform curriculum design, teacher training, and policy. Through this effort, the study aspires to contribute to a deeper understanding of how purposeful play can be harnessed to support children's holistic development in Philippine early childhood education settings.

#### 2. Literature Review

Play behavior in early childhood is diverse and serves as a critical foundation for physical, cognitive, and socio-emotional development. Reticent behavior, characterized by observing peers without joining in, has been linked to individual differences in social confidence and temperament rather than deficits alone (Coplan & Armer, 2007). While some children may prefer to watch and reflect before engaging, consistently high levels of reticent behavior can limit opportunities for practicing interactive skills and refining complex movement patterns (Rubin et al., 2009). Solitary-passive play such as quiet exploration of toys or materials supports the development of attention, problem-solving, and early fine motor coordination (Walker, 2020). In contrast, solitary-active play, which includes activities like running or pretend play alone, provides valuable contexts for sensory experiences, self-directed movement, and gross motor experimentation (Pellegrini & Smith, 2020). Research shows that these forms of play can coexist, reflecting a healthy balance between independence and social engagement (Coplan et al., 2004).

Social play and rough-and-tumble play are especially influential for motor and social development. Social play whether cooperative games, role-play, or shared construction helps children practice turn-taking, conflict resolution, and coordination with peers (Ginsburg, 2007; Tan et al., 2020). Rough play, including playful chasing and wrestling, has been associated with the development of strength, balance, and self-regulation (Flanders et al., 2009). Studies suggest that when guided and supervised appropriately, rough-and-tumble play does not promote aggression but rather provides a controlled environment for children to understand physical limits and social rules (Pellegrini & Smith, 1998). Regarding motor skills, gross motor competence develops rapidly in early childhood and is shaped by a combination of maturation and environmental opportunities for active play (Adolph & Hoch, 2019). Fine motor skills, including grasping, drawing, and manipulating objects, are strongly linked to engagement in manipulative play and structured practice (Cheraghi et al., 2021). Together, these findings highlight the importance of offering varied play experiences to nurture both gross and fine motor development in preschoolers.

#### 3. Methodology

This study used a descriptive correlational research design to investigate the connection between preschoolers' play behaviors and their motor skill development. This approach was selected because it allowed for the structured observation and analysis of naturally occurring behaviors without the need for experimental manipulation or intervention. The Input-Process-Output (IPO) model was adopted as the study's conceptual framework, supporting the examination of how various play behaviors (inputs) relate to motor skill outcomes (outputs). Participants included 100 preschool children, their parents, and three teachers who served as primary informants. Data were gathered using two core instruments: the Play Behavior Questionnaire and a Motor Skills Assessment. The Play Behavior Questionnaire, based on the work of Coplan and Rubin (1988), contained 30 items measuring aspects such as reticent behavior, solitary-passive play, solitary-active play, social play, and rough play. Meanwhile, the Motor Skills Assessment included 25 items 14 targeting gross motor skills and 11 assessing fine motor skills in line with standards established by the Council for the Welfare of Children and UNICEF Philippines (2011). Both tools utilized a five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). Teachers rated each child's play behaviors and motor competencies over a defined observation period, while parents provided demographic information for context. The data were analyzed by computing weighted means, which were interpreted using predetermined descriptive categories to clearly describe the prevalence of each type of play behavior and motor skill level among the children.

#### 4. Results and Discussion

Table 1. Level of Play Behavior of the Preschoolers in Terms of Solitary-Passive Behavior

S/N	Indicators	WM	SD	Verbal Description
1	plays by himself/herself, examining a toy or object	3.84	0.46	High
2	plays alone, building things with blocks and/or other toys	3.80	0.47	High
3	plays by himself/herself, drawing, painting pictures or doing puzzles	3.80	0.47	High
4	plays alone, exploring toys or objects, trying to figure out how they work	3.22	0.84	Moderate
	Aggregate Mean	3.67		
	Aggregate Standard Deviation		0.56	High

The data presented in Table 1 show that preschoolers exhibited an overall high level of solitary-passive play behavior, as indicated by an aggregate mean of 3.67 and a moderate aggregate standard deviation of 0.56, reflecting some variability across specific behaviors. Among the indicators, the highest weighted mean was observed for playing alone while examining a toy or object (WM = 3.84), suggesting that many children were frequently engaged in quiet observation and exploration. Similarly, playing alone while building with blocks (WM = 3.80) and drawing or working on puzzles independently (WM = 3.80) were also rated highly, indicating strong interest in focused, self-directed activities. Notably, the behavior playing alone to explore how toys or objects work received a lower mean score of 3.22, categorized as "Moderate," and showed the highest variability (SD = 0.84), suggesting that while some children engaged in this behavior often, others did so less consistently. Overall, these results imply that children in this group tended to prefer individual, quiet play that supports concentration, fine motor practice, and cognitive engagement. However, the moderate rating for exploratory manipulation suggests that not all children were equally inclined toward investigative behaviors, which could reflect differences in curiosity, confidence, or exposure to open-ended materials. From an educational perspective, it is important to balance solitary-passive activities with social and collaborative experiences, ensuring that children develop not only independent problem-solving skills but also the social competencies needed for group learning and interaction.

S/N	Indicators	WM	SD	Verbal Description
1	plays by himself/herself, engaging in simple motor activities (e.g., running, ringing bells/buzzers)	3.17	0.91	Moderate
2	engages in pretend play by himself/herself	3.20	0.92	Moderate
3	plays 'make-believe', but not with other children	3.23	0.91	Moderate
4	plays alone in an active fashion, enjoying an activity solely for the physical sensation it creates	3.19	0.93	Moderate
	Aggregate Mean	3.20		Moderate
	Aggregate Standard Deviation		0.92	

Table 2. Level of Play Behavior of the Preschoolers in Terms of Solitary-Active Behavior

The data in Table 2 indicate that preschoolers showed a moderate level of solitary-active play behavior, with an aggregate mean of 3.20 and a relatively high aggregate standard deviation of 0.92, suggesting considerable variability among children's preferences for this type of play. All four indicators were rated within the moderate range, with mean scores clustered closely together. The highest rating was observed for playing make-believe alone (WM = 3.23), indicating that some children engaged in independent imaginative play with moderate frequency. Similarly, engaging in pretend play alone (WM = 3.20) and playing actively for the enjoyment of physical sensations (WM = 3.19) were rated at comparable levels. The lowest mean was for simple motor activities performed alone, such as running or ringing bells (WM = 3.17), which, although still moderate, reflected slightly less frequent observation by teachers. Overall, these findings suggest that while solitary-active behaviors were present among the children, they were not as dominant as solitary-passive or social play activities. The relatively high standard deviations across items indicate that some children engaged in active solitary play often, while others did so infrequently. From an educational perspective, this pattern points to the importance of encouraging more opportunities for movement-based, self-initiated play, which supports gross motor development, sensory exploration, and self-regulation. Teachers may consider creating accessible spaces and offering diverse materials that inspire active play while also providing scaffolding to help children build confidence engaging in these activities independently.

S/N	Indicators	WM	SD	Verbal Description
	plays by himself/herself, engaging in simple	3.19	0.94	Moderate
1	motor activities (e.g., running, ringing			
	bells/buzzers)			
2	engages in pretend play by	3.21	0.92	Moderate
-	himself/herself			
3	plays 'make-believe', but not with other	3.18	0.89	Moderate
-	children			
	plays alone in an active fashion, enjoying an	3.21	0.89	Moderate
4	activity solely for the physical sensation it			
	creates			
	Aggregate Mean	3.20		Moderate
			0.91	
	Aggregate Standard Deviation		0.91	

Table 3. Level of Play Behavior of the Preschoolers in Terms of Solitary-Active Behavior

The data in Table 3 show that preschoolers exhibited a moderate level of solitary-active play behavior, as reflected by an aggregate mean of 3.20 and an aggregate standard deviation of 0.91, indicating notable variability among children's engagement in this type of play. All four indicators received similar moderate ratings. The highest mean scores were for engaging in pretend play alone (WM = 3.21) and playing alone in an active fashion for the enjoyment of physical sensations

(WM = 3.21). This suggests that some children found satisfaction in independent movement activities and imaginative scenarios without involving peers. Slightly lower but still moderate means were observed for playing simple motor activities alone (WM = 3.19) and playing make-believe alone (WM = 3.18), showing consistent but not dominant participation in solitary-active behaviors across the group. The relatively high standard deviations across indicators (ranging from 0.89 to 0.94) suggest that while some children regularly engaged in these activities, others did so less frequently. Overall, these results imply that solitary-active play was a moderate but not predominant component of the children's daily experiences. From an educational standpoint, this highlights the opportunity to encourage more independent active play, which can promote gross motor development, self-confidence, and sensory exploration. Teachers and caregivers can support this by providing safe, stimulating environments and materials that invite active movement and imaginative experimentation, while also offering encouragement and modeling to children who may be hesitant to engage in physical solitary play.

The data presented in Table 4 show that preschoolers demonstrated a high level of social play behavior, with an aggregate mean of 3.70 and an aggregate standard deviation of 0.53, reflecting both consistent and frequent engagement across all observed behaviors. All six indicators received high ratings, with weighted means ranging narrowly between 3.69 and 3.71, indicating that children often participated in social and cooperative activities during playtime. The highest means were observed for engaging in group play (WM = 3.71), playing in groups with active interaction rather than parallel play (WM = 3.71), and engaging in active conversations while playing (WM = 3.71).

S/N	Indicators	WM	SD	Verbal Description
1	talks to other children during play	3.70	0.50	High
2	plays 'make-believe' with other children	3.69	0.54	High
3	engages in group play	3.71	0.53	High
4	plays in groups with (not just beside) other children	3.71	0.53	High
5	engages in active conversations with other children during play	3.71	0.53	High
6	engages in pretend play with other children	3.71	0.52	High
	Aggregate Mean	3.70		
				High
	Aggregate Standard Deviation		0.53	5

Table 4. Level of Play Behavior of the Preschoolers in Terms of Social Play

These scores suggest that many children were comfortable interacting, negotiating, and communicating with peers during play. Slightly lower but still high mean scores were recorded for make-believe play with others (WM = 3.69) and talking to other children during play (WM = 3.70), confirming the strong presence of collaborative and imaginative engagement. These results indicate that social play is a prominent feature of the children's experiences, which is developmentally beneficial for building language skills, social understanding, empathy, and cooperation. The relatively low variability across standard deviations suggests that this pattern was common to most children rather than limited to a few highly social individuals. From an educational perspective, these findings underscore the importance of maintaining and further enriching opportunities for group activities, role play, and shared projects to nurture both social competence and communication abilities. Teachers can build on this strong foundation by introducing more complex collaborative tasks and structured group games, which can help deepen social bonds and prepare children for the interpersonal demands of formal schooling.

S/N	Indicators	WM	SD	Verbal Description
1	plays 'rough-and-tumble' with other children	3.36	0.65	Moderate
2	engages in playful/mock fighting with other children	3.33	0.63	Moderate
	Aggregate Mean	3.34		Moderate
	Aggregate Standard Deviation		0.64	

 Table 5. Level of Play Behavior of the Preschoolers in Terms of Rough Play

The data presented in Table 5 show that preschoolers demonstrated a moderate level of rough play behavior, with an aggregate mean of 3.34 and an aggregate standard deviation of 0.64, indicating some variability in how frequently children engaged in these energetic social activities. Among the indicators, playing rough-and-tumble with other children (WM = 3.36) was observed slightly more often than engaging in playful or mock fighting (WM = 3.33), though both behaviors were rated within the same moderate range. These findings suggest that while many children did participate in physical, boisterous forms of play, these activities were not as commonly observed as social or solitary play behaviors overall. The moderate levels of rough play could reflect a variety of factors, such as differences in individual temperament, teacher expectations, playground space, or cultural attitudes toward physically active play. Research indicates that rough-and-tumble play can be developmentally beneficial when appropriately supervised, helping children learn self-regulation, social boundaries, and coordination skills (Flanders et al., 2009; Pellegrini & Smith, 1998). However, the variability indicated by the relatively high standard deviations suggests that some children were more inclined toward this type of play than others.

S/N	Indicators	WM	SD	Verbal Description
1	climbs on chair or other elevated piece of furniture like a bed without help.	4.09	0.32	High
2	walks backwards	4.14	0.35	High
3	runs without tripping or falling.	3.99	0.32	High
4	walks upstairs holding onto a handrail, two feet on each step with one hand held.	4.00	0.24	High
5	walks upstairs holding onto a handrail, two feet on each step.	4.00	0.24	High
6	walks upstairs with alternate feet without holding onto a handrail	4.00	0.24	High
7	walks upstairs with alternate feet without holding onto a handrail.	3.58	0.57	High
8	walks downstairs with alternate feet without holding onto a handrail	3.56	0.57	High
9	moves body part as Directed.	3.93	0.29	High
10	jumps up	4.04	0.24	High
11	throws ball overhead with direction	3.95	0.35	High
12	hops one to three steps on preferred foot	3.81	0.46	High
13	jumps and turns	4.07	0.35	High
14	dances patterns/joins group movement activities	3.94	0.43	High
	Aggregate Mean	3.94		
	Aggregate Standard Deviation		0.35	High

Table 6. Level of Motor Skills of the Preschoolers in Terms of Gross Motor Skill

The data in Table 6 indicate that preschoolers demonstrated a high level of gross motor skills overall, with an aggregate mean of 3.94 and an aggregate standard deviation of 0.35, showing consistent proficiency across most tasks. Among the assessed skills, the highest mean scores were observed in walking backwards (WM = 4.14), jumping and turning (WM = 4.07), and climbing on elevated furniture (WM = 4.09), highlighting that many children were confident in dynamic movements requiring coordination and balance. Similarly, tasks such as jumping up (WM = 4.04) and running without tripping (WM = 3.99) were also rated highly, confirming that basic locomotor abilities were well established. Slightly lower, though still high, mean scores appeared in more

complex skills such as walking upstairs and downstairs with alternate feet without support (WM = 3.56–3.58) and hopping one to three steps on a preferred foot (WM = 3.81). These ratings suggest that while most children were comfortable with foundational movements, some were still developing confidence and stability in advanced gross motor tasks, which is expected in this age group. The relatively modest standard deviations imply that most children performed these skills at a similar level. From an educational perspective, the findings emphasize the importance of continuing to provide daily opportunities for varied movement experiences, including climbing, balancing, jumping, and dancing. These activities will further strengthen motor skills and help children prepare for the physical demands of school and everyday life.

S/N	Indicators	WM	SD	Verbal Description
1	uses all five fingers to get food/toys placed on	4.00	0.14	High
1	a flat surface			
2	picks up objects with thumb and index finger	3.93	0.25	High
3	displays a definite hand preference	3.53	0.50	High
4	puts small objects in/out of containers	4.00	0.00	High
5	holds crayon with all the fingers of his hand	3.82	0.47	High
J	making a fist (i.e., pal mar grasp)			
6	unscrews the lid of a container or unwraps	3.98	0.19	High
0	food			
7	scribbles spontaneously	3.96	0.19	High
8	scribbles vertical and horizontal lines	3.87	0.34	High
9	draws circle purposefully	3.92	0.27	High
10	draws a human figure (head, eyes, trunk, arms,	3.85	0.36	High
10	hands/fingers)			
11	draws a house using geometric forms	3.81	0.39	High
	Aggregate Mean	3.88		High
	Aggregate Standard Deviation		0.28	
	Aggregate Standard Deviation			

Table 7. Level of Motor Skills of the Preschoolers in Terms of Fine Motor Skills

The data in Table 7 show that preschoolers demonstrated an overall high level of fine motor skills, with an aggregate mean of 3.88 and an aggregate standard deviation of 0.28, reflecting consistent performance across a range of tasks involving hand coordination and precision. The highest mean scores were observed in basic manipulative activities such as using all five fingers to pick up objects (WM = 4.00) and putting small objects in and out of containers (WM = 4.00), suggesting that children were very comfortable with foundational grasping and placement skills. Similarly, tasks like unscrewing lids or unwrapping food (WM = 3.98) and spontaneous scribbling (WM = 3.96) were rated highly, showing strong development of early hand control and exploratory use of tools. Slightly lower but still high ratings appeared in more complex or advanced tasks requiring more refined coordination and visual-motor integration, such as drawing a human figure (WM = 3.85), drawing a house using geometric forms (WM = 3.81), and displaying a definite hand preference (WM = 3.53). These findings are developmentally typical, as representational drawing and consistent hand dominance often emerge progressively during the preschool years. The low variability across most items (SDs ranging from 0.00 to 0.50) suggests that most children were achieving similar levels of skill mastery. From an educational perspective, these results highlight the importance of continuing to provide daily fine motor activities such as drawing, cutting, puzzles, and manipulative play to further strengthen dexterity, bilateral coordination, and readiness for writing and self-help tasks.

Table 8. Relationship Between Level of Play Behavior and Level of Motor Skills of the Prescho

Variables	r-value	Strength of Correlation	p - value	Decision	Result
Play Behavior and Gross Motor Skills	0.090	Negligible Positive	0.357	Do not reject Ho	Not Significan
Play Behavior and	0.143	Negligible Positive	0.143	Do not reject	Not Significan
Fine Skills				Но	

\*significant at p<0.05 (two-tailed)

The data in Table 8 present the correlations between preschoolers' level of play behavior and their motor skills development. The analysis shows that the relationship between play behavior and gross motor skills resulted in an r-value of 0.090, which indicates a negligible positive correlation. The associated p-value was 0.357, considerably higher than the 0.05 level of significance. Therefore, the null hypothesis was not rejected, indicating that the observed relationship was not statistically significant. Similarly, the correlation between play behavior and fine motor skills also showed an r-value of 0.143, again categorized as a negligible positive correlation. The p-value for this relationship was 0.143, which also exceeded the 0.05 threshold, leading to the conclusion that there was no significant association between children's overall play behaviors were not strong predictors of either gross or fine motor skills. This may imply that factors beyond general play such as biological maturation, specific targeted activities, quality of instruction, and individual developmental trajectories play a larger role in motor skill acquisition among preschoolers. From an educational perspective, the findings highlight the need for purposeful, structured motor development opportunities rather than relying solely on free play to build motor competencies. While play remains essential for social and emotional growth, these results indicate that intentional interventions and guided practice may be necessary to effectively strengthen gross and fine motor abilities in early childhood settings.

### 5. Discussion

The findings of this study reveal that while preschoolers at Crossing Bayabas Child Development Center engaged at high levels in both solitary-passive and social play, their participation in solitary-active and rough play was only moderate. This balanced pattern aligns with research emphasizing that young children naturally oscillate between independent, focused exploration and social, cooperative engagement (Adolph & Hoch, 2019; Ginsburg, 2019). The strong presence of social play behaviors such as group play and pretend play with peers reflects developmental trends showing that interactive play is especially important for building communication skills and emotional understanding (Walker, 2020; Tan et al., 2020). However, the relatively moderate levels of rough-and-tumble play could suggest either environmental limitations or cautious attitudes by teachers toward vigorous physical interactions. Recent evidence highlights that when carefully supervised, rough play contributes to self-regulation, turn-taking, and physical competence, indicating a need for educators to create safe contexts for such experiences (Pellegrini & Smith, 2020; Flanders et al., 2009).

Importantly, the analysis showed that no significant correlations were found between overall play behavior and either gross or fine motor skill development, suggesting that merely increasing the frequency of play alone may not automatically translate into measurable motor gains. This finding is consistent with studies emphasizing that motor development in early childhood depends on both spontaneous play and intentional, structured movement opportunities (Tortella et al., 2022; Foweather et al., 2021). For example, Cheraghi et al. (2021) found that targeted motor activities, such as obstacle courses and guided movement games, more effectively improve motor coordination compared to unstructured play alone. Similarly, Maulidiyyah and Purwoko (2023) highlighted that traditional games integrated into daily routines can strengthen specific motor skills. These results underscore the importance of designing early childhood programs that combine rich, varied play experiences with structured, developmentally appropriate physical challenges to maximize motor skill acquisition. Educators and policymakers should therefore consider embedding intentional gross and fine motor activities into curricula, alongside nurturing children's natural drive for free play, to support comprehensive school readiness.

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