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The Role of Motor Activities in Shaping the Personality of Kindergarten Children

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Abstract
The present study aims to explore the role of motor activities in fostering the personality development of kindergarten children. Additionally, it seeks to propose a framework to enhance the effectiveness of motor activities in this developmental context. To achieve this, the researcher employed a descriptive-analytical methodology, selecting a stratified random sample consisting of 589 kindergarten teachers. A structured questionnaire comprising 59 items was administered. The findings indicated that motor activities play a significant role in the personality development of kindergarten children, as perceived by the female teachers, with a relative weight of 63.97%. The study culminates in a set of recommendations aimed at optimizing the role of motor activities in enhancing various aspects of the child's personality

Keywords: *Motor activities, child personality development, kindergarten children*

Introduction

The kindergarten phase represents the initial educational environment that a child encounters outside the family setting. Scholars have extensively emphasized its significance, given its profound impact on a child's future personality development, which can equal or even surpass the influence of familial upbringing. The educational atmosphere provided by kindergartens plays a pivotal role in shaping positive attitudes towards various aspects of life.

A child's self-esteem and confidence are integral to their perception of life's positive aspects, fostering optimism and an enhanced sense of happiness. This self-assured outlook becomes the cornerstone for achieving life satisfaction and happiness, underpinned by goal-oriented living. Life imbued with purpose correlates with increased well-being, suggesting a strong relationship between intentional living and overall happiness. Moreover, training children to manage negative emotions and mood fluctuations effectively is crucial for mitigating feelings of anger, anxiety, sadness, and fear, thereby bolstering their self-confidence.

Motor activities have been recognized as a vital medium for children to express themselves and release emotions they cannot articulate verbally. The use of various materials and tools during these activities encourages decision-making, experimentation with new ideas, and learning through trial and error. According to Al-Fares (2021), these motor activities serve as a learning conduit, enabling children to express their individuality and develop their personality simultaneously).

Beyond contributing to the construction of a child's personality and self-concept, motor activities also facilitate the development of diverse cognitive abilities in kindergarten children. They stimulate mental growth by

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enhancing awareness, attention, memory, and the ability to discern similarities and differences in physical tasks. Furthermore, they promote physical development through the control of large muscle groups, enabling children to release excess energy and improve their physical coordination. Additionally, motor activities enhance linguistic development by introducing new vocabulary and encouraging verbal expression during interactive experiences and storytelling. Socially, as articulated by Kuzik et al (2020), these activities instill values of teamwork, cooperation, and respect for others, thereby nurturing the child's social and emotional development

According to Palagi and Pellis (2022), motor activities can be classified into various forms:

1. **Traditional Play:** Imitative actions that replicate the behaviors of peers or adults. This form of play fosters vocabulary development and skill acquisition as children mimic and engage in similar activities.
2. **Parallel Play:** In this form, children play alongside one another without direct interaction, each engaging independently. Although there is minimal communication, children often learn from observing each other.
3. **Group Play:** This involves active participation with peers, enhancing various skills such as communication, relationship-building, and problem-solving.
4. **Cooperative Play:** A highly interactive form of play where children engage in shared activities, such as solving puzzles together, typically emerging after the age of four when cooperative skills are more developed.
5. **Competitive Play:** Following cooperative play, children explore competitive activities where the focus shifts to winning or losing, helping them develop physical, cognitive, and motor skills, as well as the ability to handle defeat.
6. **Sportive Play:** This includes physical activities like cycling and ball games, which promote motor skills and physical fitness.
7. **Artistic Play:** Activities such as drawing, playing musical instruments, and dancing that encourage creativity, help release negative energy, and provide a platform for self-expression.

Several psychological theories have sought to explain the functional role of motor activities in childhood, including:

- **Surplus Energy Theory:** This theory posits that motor activities serve as an outlet for the excess energy children accumulate from food intake, acting as a safety valve to maintain their natural energy balance since children do not have other avenues for energy expenditure (Osman, 2014).
- **Recreation Theory:** According to this perspective, motor activities help children replenish their depleted energy, providing a sense of rejuvenation and enjoyment, which restores their vitality after completing tasks (Madrona, 2014).
- **Anticipatory Theory:** This theory suggests that motor activities prepare children for future responsibilities by anticipating and simulating future tasks, thereby equipping them to face life's challenges (Ignatova, 2020).
- **Recapitulation Theory:** This theory posits that motor activities are reminiscent of the primitive human experience, where children engage in activities similar to those of early humans, such as tool usage and environmental exploration, driven by curiosity (Hughes, 2009).
- **Catharsis Theory:** Regarded as a comprehensive perspective on play, this theory integrates elements from the Surplus Energy and Recreation theories. It suggests that motor activities provide an outlet for suppressed emotions and instincts that are otherwise difficult to express, fostering creativity and innovation as children engage in exploratory and expressive play (David & Gbenga, 2014).

Recognizing the significant role motor activities play in developing a child's personality, this study seeks to address the primary research question: What is the relationship between motor activities and personality development in kindergarten children? From this central question, the following sub-questions arise:

1. How do motor activities contribute to the personality development of kindergarten children from the perspective of their teachers?
2. What is the proposed framework for enhancing the role of motor activities in fostering personality development in kindergarten children?

Objectives of the study

The primary aim of this study is to identify the relationship between motor activities and the development of the personality of kindergarten children. Additionally, the study seeks to propose a structured framework to enhance the role of motor activities in fostering various

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dimensions of personality development within this demographic.

Significance of the study

The findings of this study may pave the way for subsequent research exploring novel methods and strategies to support personality and skill development in children through diverse motor activities. The study highlights the importance of integrating motor activities into kindergarten programs to advance various facets of personality development. Moreover, it aims to raise awareness among educators and specialists in early childhood education regarding the critical role that motor activities play in shaping a child's personality.

Methodology of the study

1. Design of the study

This study utilizes a descriptive-analytical methodology to identify and evaluate the role of motor activities in fostering personality development among kindergarten children.

2. Sample of the study

The study's target population consists of all kindergarten teachers within the Directorate of Education in Gharbia Governorate, totaling 4,115 teachers for the academic year 2024/2025.

- **Pilot Sample:** The pilot sample included 40 kindergarten teachers randomly selected from 10 educational administrations within Gharbia Governorate. This pilot group was separate from the main research sample.
- **Main Sample:** The main research sample consisted of 650 kindergarten teachers across the same 10 educational administrations, from whom 632 completed questionnaires were collected. Forty-three incomplete questionnaires were excluded, resulting in a final sample size of 589 participants.

3. Instrument of the study

The research instrument utilized in this study was a questionnaire titled *"Motor Activities and Personality Development in Kindergarten Children."* The development of the questionnaire followed these steps:

- **Expert Validation:** Initially, a 64-item version of the questionnaire was presented to specialists in childhood education curricula and instructional methods. Based on expert feedback and an 80% agreement threshold, five items were removed, resulting in a finalized 59-item questionnaire.
- **Internal Consistency:** The questionnaire was then administered to the pilot sample of 40 kindergarten teachers. Pearson correlation coefficients were calculated to assess the relationship between each item and the total score for its respective domain. Results are presented in Table 1, demonstrating statistically significant correlations across items, with coefficients ranging from 0.422 to 0.853, confirming high internal consistency and justifying its application to the main research sample.

Table (1) the correlation coefficient of the questionnaire items and the overall total score

Domain	Item	Correlation Coefficient	Domain	Item	Correlation Coefficient	Domain	Item	Correlation Coefficient
Leadership	1	0.752	Order And Organization	3	0.731***		6	0.679
	2	.٠.805		4	٠.812		7	0.704
	3	٠.569		5	0.517		8	0.676
	4	٠.582		6	٠.749		9	٠.622
	5	٠.733		7	.٠.721	Empathic Listening	1	0.523
	6	0.553		8	0.601		2	0.566
	7	0.824		9	٠.744		3	.٠.728
	8	٠.713	Belonging And Loyalty	1	٠.588		4	٠.751
	9	0.627		2	0.61		5	٠.784
Precision And Accuracy	1	٠.725		3	0.572		6	٠.461
	2	0.498		4	٠.743		7	0.544***
	3	٠.765		5	0.601		8	0.67
	4	٠.659		6	٠.528		9	0.671
	5	٠.726		7	0.43		10	0.683
	6	0.738		8	0.548		11	.٠.728
	7	0.853	Humor And Wit	1	٠.609		12	0.799
	8	0.777		2	0.422		13	٠.767
	9	0.642		3	0.667			
	1	٠.528		4	٠.708			
	2	0.479		5	0.649			

Table t at the degree of freedom (38) and at the level of significance (0.01) = 0.393

Table t at the degree of freedom (38) and at the level of significance (0.05) = 0.304

Data Collection, Analysis Procedures, and Questionnaire Reliability

Questionnaire Reliability

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The reliability of the questionnaire was established through two methods:

Split-Half Method: The items were divided into two halves, with each half's score calculated separately. Pearson correlation coefficients were determined for the scores of each half, and Spearman-Brown adjustments were applied to correct for length disparities. The results are displayed in Table 2, showing high reliability coefficients across all dimensions, with the overall coefficient exceeding 0.856, indicating strong internal consistency.

Table (2) the correlation coefficients for the two halves of the questionnaire items prior to modification, along with the coefficients following modification

Domain	Number Of Items:	Correlation Coefficient	Correlation Coefficient following modification.
Leadership	10*	0.787	0.881
Precision and Accuracy	9*	0.733	0.846
Order and organization	10*	0.771	0.833
Belonging and Loyalty:	8*	0.764	0.825
Humor and Wit	9*	0.763	0.866
Empathic Listening	13*	0.789	0.887
Total	59*	0.767	0.856

*** The Guttmann equation was used because the two halves are not equal**

Cronbach's Alpha Method: The researcher calculated Cronbach's Alpha for each domain and the overall questionnaire, as shown in Table 3. The reliability coefficients were all above 0.921, confirming that the questionnaire possesses a high degree of consistency, making it suitable for the primary sample.

Table (3) Cronbach's alpha coefficients for each the questionnaire items

Domain	Number Of Items:	(Cronbach Alpha Coefficient)
Leadership	10	0..936
Precision and Accuracy	9	0.901
Order and Organization	10	0.939
Belonging and Loyalty	8	0.913
Humor and Wit	9	0.903
Empathic Listening	13	0.937
Total	59	0.921

Table 3 shows that the stability coefficients are higher than (0.921), which indicates that the study instrument has an acceptable degree of stability, reassuring its administration to the sample of the study

Steps for Administering the Questionnaire to the Research Sample

1. **Pilot Study:** A preliminary test was conducted with 45 kindergarten teachers (not included in the main sample) between September 15 and October 1, 2024. The pilot study confirmed that the questionnaire's domains and items were comprehensible, with no difficulties encountered in completing it.
2. **Main Data Collection:** The finalized questionnaire was distributed to 650 kindergarten teachers across 10 educational administrations. Out of these, 632 completed questionnaires were returned, 43 of which were excluded due to incomplete data, yielding a final sample of 589 responses. Data collection spanned one month, from October 2 to November 2, 2024.
3. **Challenges and Resolutions:** During data collection, the researcher faced challenges in retrieving the completed questionnaires from participants. Such a challenge was addressed by the researcher's regular presence at the Kindergarten Education Directorate in Gharbia to collect, review, and verify the responses.

Analysis and Discussion of Research Questions

Research Question 1

"What is the role of motor activities in developing the personality of kindergarten children, according to their teachers?"

(Table 4) To addresses this question, mean scores were calculated for each domain and questionnaire item, as outlined in

Domain	Item Number	Total Responses	Mean Scores	Standard Deviation	Relative Weight	Rank
Leadership	10	17.733	30.06	7.342	33.39	2
Precision And Accuracy	9	16.612	28.00	6.735	29.63	4
Order And Organization	10	18.457	31.28	7.483	32.93	3

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Domain	Item Number	Total Responses	Mean Scores	Standard Deviation	Relative Weight	Rank
Belonging And Loyalty	8	14.187	24.05	5.874	26.72	6
Humor And Playfulness	9	18.144	30.75	7.004	27.96	5
Empathic Listening	13	26.207	44.42	10.12	40.38	1
Total Score	**59**	**111.340**	**188.71**	**40.57**	**63.97**	

As is evident in table 4, the results highlight that the domain of **Empathic Listening** achieved the highest relative weight (40.38%), indicating that teachers regard this dimension as particularly impactful for personality development. Teachers observed that children frequently listen to their peers, engage in discussions about motor activities, ask questions, and consider the opinions of others. Similarly, the **Leadership** domain received a significant relative weight (33.39%), with children often assisting peers, organizing team roles, and solving conflicts within the kindergarten setting.

These findings align with studies by David & Gbenga (2014), Madrona (2014), Ignatova (2020), and Klein (2021), which emphasize the importance of motor activities in nurturing leadership qualities among young children.

The **Belonging and Loyalty** domain received the lowest relative weight (26.72%), underscoring the need for strategic integration of motor activities to strengthen these concepts. Despite children expressing joy when reciting the national anthem, feeling pride in their school, and gratitude towards their families, various intrinsic and external factors may hinder full internalization of these values. These factors include family upbringing, socioeconomic circumstances, social disparities, and external influences such as media and social networks, as indicated in recent research by Rifaat (2023).

Research Question 2

What is the proposed framework for activating the role of motor activities in developing the personality of kindergarten children?

To address this question, an open-ended query was included at the end of the questionnaire, inviting participants to suggest strategies for optimizing motor activities to foster personality development. The responses were synthesized into the following proposed framework:

1. **Enhancing Self-Confidence:** Engaging children in physical and intellectual challenges within motor activities builds self-confidence, as children learn to persist after experiencing setbacks, fostering resilience in all life situations.
2. **Promoting Cooperative Behavior:** Motor activities encourage collaboration, with children assisting each other in tasks such as building sandcastles or organizing team-based games. This cooperation instills a sense of collective effort and teamwork.
3. **Developing Problem-Solving Skills:** Motor activities expose children to challenging situations, fostering skills to handle difficulties by using physical strategies to overcome obstacles.
4. **Stimulating Cognitive Growth and Creativity:** Regular participation in motor activities enhances creative thinking, with play linked to increased IQ levels and solution-focused thinking.
5. **Managing Emotions and Self-Regulation:** Motor activities help children learn to control their emotional responses over time, enhancing positive feelings and reducing negative emotions.
6. **Fostering Social Interaction:** Group motor activities enhance positive social interactions, empathy, and the ability to forge meaningful relationships.
7. **Encouraging Independence:** Motor activities foster self-discovery and autonomy, allowing children to explore their interests and abilities without strict adherence to external rules.
8. **Instilling a Sense of Curiosity and Exploration:** Through motor activities, children cultivate curiosity, seeking new ways to play and exploring their surroundings more effectively.
9. **Providing an Outlet for Self-Expression:** Artistic forms of motor activities, such as drawing, music, and dance, enable children to communicate personal ideas and emotions effectively.

Recommendations of the study

Based on the findings, the study proposes several recommendations to enhance the use of motor activities in kindergarten programs:

- Emphasize the inclusion of motor activities as a core component in personality development programs for kindergarten children.

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- Develop a guide for teachers on implementing motor activities in kindergartens to maximize developmental benefits.
- Ensure that motor activities are age-appropriate and align with children's developmental needs.
- Increase the availability of diverse play equipment in kindergartens to facilitate motor activities.
- Prioritize group motor activities to cultivate teamwork, respect for others, and communication skills.
- Avoid enforcing traditional learning methods in kindergartens, as the primary purpose of this educational stage is to promote learning through play and enjoyment.
- Refrain from requiring children to participate in activities they do not enjoy.
- Ensure equal access to motor activities for all children, without discrimination.

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