BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg
BG PULSE JOURNAL

METHODS FOR ENHANCING PHYSICAL ACTIVITY AMONG PRESCHOOL CHILDREN IN EARLY CHILDHOOD EDUCATION SETTINGS

Turayev Asadbek Anvarovich
Teacher of the Department of Sports Activities
Bukhara State University

Annotation:
This article examines the methodology for the effective application of various physical education tools aimed at increasing the motor activity of preschool-aged children. Particular attention is given to the organization of physical exercises and movement activities that contribute to the improvement of children's physical development and overall health. The study emphasizes that properly organized physical education plays a crucial role in strengthening the functional capabilities of a child's body and in forming basic motor skills at an early age. Taking into account the age-specific characteristics, physiological development, and health status of preschool children, appropriate methodological approaches for determining optimal physical loads were developed. These approaches allow educators to organize physical activities in a safe and effective manner while preventing excessive fatigue and physical overload among children. The study also considers the importance of balancing physical exercises with rest periods to ensure the gradual development of endurance and strength. Furthermore, the article discusses the role of specially designed exercise complexes in ensuring the comprehensive development of young children. These exercises are aimed at improving key physical qualities, including speed, balance, coordination, and muscular strength. As a result, children demonstrate improved motor skills, greater confidence in performing physical tasks, and a higher level of participation in physical activities.

Keywords: Preschool age, senior group, preschool organization, action activities, special exercises, physical development, education, physical qualities, training, preschool age, physical exercises, health, action games, personality, motor.

Introduction. At present, rational physical activity is considered the primary means of supporting the healthy development of preschool children. The results of numerous scientific studies indicate that the effective and systematic use of different types of physical exercises, taking into account the interests, age characteristics, and gender differences of preschoolers, plays a crucial role in strengthening children's health.[1, B.106.]

Research findings show that properly organized physical activity contributes to the improvement of motor functions in children with musculoskeletal disorders (approximately 80%) and enhances the overall level of physical fitness among children (around 90%). In addition, it significantly increases the resistance of the young organism to hypoxia. The integration and practical implementation of various educational and health-improving methods also facilitate the easier adaptation of educators to the conditions of preschool institutions. As a result, a reduction of morbidity rates among preschool children by up to 50% has been observed, including a decrease in chronic disease exacerbations.[2, B. 41].

Physical education and sports activities play a vital role in increasing children's motor activity, strengthening their general health condition, and contributing to their spiritual and moral development. Participation in sports not only improves physical abilities such as agility,

coordination, precision, and reaction speed, but also fosters the development of social competencies. Through sports activities, children learn teamwork, mutual respect, friendship, and the ability to accept competition appropriately while developing perseverance in achieving success.

The health status of the younger generation is important not only for their personal well-being but also for the sustainable development of society and the state as a whole. In modern conditions, environmental factors such as ecological degradation, air pollution, and the reduction of clean water resources may negatively influence children's health. Therefore, improving environmental conditions, preserving natural resources, and promoting a healthy lifestyle have become essential tasks. Preschool age represents one of the most critical stages in human development, during which physical education and regular physical activity serve as the most effective means of improving health.

In recent years, particular attention has been given to the reform and development of preschool education as the initial stage of the national education system. The aim of these reforms is to enhance the quality of education and ensure the comprehensive development of the younger generation. A number of legislative acts and governmental resolutions have been adopted to strengthen the health and activity levels of preschool children through physical education and sports.

Among them are the Law of the Republic of Uzbekistan "On Preschool Education and Upbringing" (December 16, 2019), the updated second edition of the state curriculum **"First Step"** introduced in 2022, the Presidential Resolution **PQ-3261** "On Measures for the Radical Improvement of the Preschool Education System" (September 9, 2017), Presidential Decree **PF-6275** "On Measures to Further Improve the System of Ensuring Guarantees of the Rights of the Child" (August 9, 2021), Presidential Resolution **PQ-4312** "On Approval of the Concept for the Development of the Preschool Education System until 2030" (May 8, 2019), Presidential Decree **PF-158** "On the Strategy 'Uzbekistan-2030'" (September 11, 2023), as well as the Resolution of the Cabinet of Ministers No. 802 (December 22, 2020) "On Approval of the State Standard of Preschool Education and Upbringing." These normative documents clearly demonstrate the importance given to improving preschool education and strengthening children's health.[3, B. 52]

Despite the ongoing reforms, the preschool education system still lacks sufficiently developed special methods and tools specifically aimed at increasing children's motor activity.

The development of modern pedagogical technologies and effective methodological approaches designed to stimulate physical activity among preschoolers, as well as strengthening cooperation between educators and parents, remains a pressing issue. At this age, children possess a strong biological need for physical activity. However, this need is not always fully satisfied due to limited opportunities or insufficient conditions for active movement, which may lead to a decrease in children's motor activity.

Parents should therefore actively support children's physical activity at home and participate in the physical education process organized in preschool institutions. The effectiveness of preschool education depends not only on the quality of the educational process but also on the promotion of physical activity and healthy lifestyle habits.

The preschool educational process should focus on the physical development and individual characteristics of children. Through systematic physical education activities, educators can better understand each child's individual abilities by observing their agility, strength, endurance, and coordination. This approach enables teachers to select appropriate pedagogical methods tailored to each child's needs and thereby increase the effectiveness of the educational process.[4, B. 35]

Another important advantage of this system is the possibility of continuous monitoring and evaluation of children's development through the creation of individual development maps. Such an individualized approach allows educators to select educational strategies that best correspond to the needs and abilities of each child, ultimately improving learning outcomes and supporting the overall development of preschool children.[5, B. 463]

Purpose of the Study

The main objective of this research is to develop practical recommendations and proposals aimed at improving the methodology for the application of special physical exercises in order to enhance the motor activity of preschool children.

Research Methods

The following research methods were applied during the study:

- analysis of scientific and methodological literature;
- pedagogical observation;
- mathematical and statistical analysis;
- pedagogical experiment.

Research Organization

The experimental research was conducted with children aged **5–6 years** from senior groups of several preschool educational institutions: Preschool Institutions No. 19 and No. 47 in Bukhara city, No. 1 and No. 36 in Kiziltepa district of Navoi region, and No. 11 and No. 12 in Mirishkor district of Kashkadarya region.

For the development of motor activity in preschool children, a set of special and complex physical exercises was used. These exercises were standardized according to the age characteristics of the children. The exercises included:

- throwing a ball with two hands to a distance of **1 meter**;
- throwing a ball at an angle of **10–15 degrees**;
- walking along a marked line on the floor while lifting the legs;
- overcoming obstacles with a height of **20–30 cm**;
- short-distance running (**3 × 5 meters**);
- standing long jump;
- standing high jump and similar physical activities.

Results: The results of the pedagogical research demonstrated that the systematic use of specially selected physical exercises had a positive effect on the motor activity and physical development of preschool children. During the experimental process, children aged 5–6 years participated in specially organized physical activities that included movement exercises, action games, and outdoor activities. The analysis of the obtained data showed that the level of motor activity among children significantly increased compared to the initial stage of the study. Children became more active during physical education classes and demonstrated improved performance in various motor tasks. In particular, noticeable progress was observed in coordination, agility, endurance, and balance.

During the implementation of the experimental program, the children successfully performed exercises such as throwing a ball, jumping, running short distances, and overcoming small obstacles. The results indicated that regular participation in these activities improved children’s ability to control body movements and increased their confidence during physical exercises. The pedagogical observations also revealed positive changes in children's physical qualities. The majority of the participants showed improvement in speed, flexibility, and strength. For example, children were able to perform running exercises more efficiently and complete obstacle-based tasks

with greater coordination. Furthermore, the long jump and high jump exercises demonstrated an increase in children's lower body strength and motor coordination.

In addition to the improvement of physical abilities, a positive influence on children's overall health was also observed. Regular movement activities contributed to better endurance and improved the general functional state of the children's bodies. The level of fatigue during physical activities decreased gradually as the children adapted to the training loads.

Another important result of the research was the increased interest and motivation of children toward physical activities. The use of action games and interactive exercises created a positive emotional environment, which encouraged children to participate actively in the training process. As a result, the children demonstrated greater enthusiasm and willingness to engage in movement activities. The data obtained from pedagogical observations and statistical analysis confirmed that the use of specially designed physical exercises, combined with movement games and outdoor activities, significantly contributes to the development of motor activity in preschool children.

Table 1.

Dynamics of the level of physical development of 5-6-year-old boys brought up in the preschool educational organization of Navoi region, Qizilteppa district (n = 38)

№	Specification	Test time	CG (n=19) $\bar{X}$ ±σ	V %	EG (n=19) $\bar{X}$ ±σ	V %	t	p
1.	Body weight, (kg	E.H.	19,24±2,08	10,8	18,95±2,05	10,8	0,43	>0,05
		E.E.	19,35±2,09	10,7	20,79±1,91	9,1	2,22	<0,05
2.	Body length, (CM)	E.H.	113,69±16,35	16,1	110,08±18,37	16,6	0,60	>0,05
		E.E.	114,21±18,40	16,1	124,93±12,48	9,9	2,14	<0,05
3.	Chest circumference (CM)	E.H.	53,43±5,79	10,8	53,32±5,78	10,8	0,05	>0,05
		E.E.	53,48±5,80	10,8	55,43±5,51	9,9	1,06	>0,05
4.	YuQS (daq.zar.)	E.H.	100,65±11,17	11,1	102,79±11,29	10,9	0,58	>0,05
		E.E.	99,76±10,91	11,1	93,01±9,10	9,6	2,07	<0,05

Note: kg-kilogram, CM-centimeter, min-minute, dice-blow.

Discussion: In order to evaluate the level of physical development of boys aged 5–6 years, several anthropometric and physiological indicators were analyzed during the research process. At the initial stage of the study, the average result of body strength indicators in the control group was **19.24±2.08 kg**, while the variation between the obtained results constituted **10.8%**. In comparison, the average indicator in the experimental group of boys of the same age was **18.95±2.05 kg** at the beginning of the experiment. Statistical analysis showed that the reliability level at this stage was **p>0.05**, which indicates that there was no statistically significant difference between the two groups at the beginning of the research.

By the end of the study, changes were observed in both groups. The average result of the body strength indicator in the control group slightly increased to **19.35±2.09 kg**, while the variation between the results remained approximately **10.7%**. In contrast, the experimental group demonstrated more noticeable improvement. The statistical analysis of the obtained results showed that the reliability level reached **p<0.05**, indicating a statistically significant difference and confirming the effectiveness of the applied methodology.

After the implementation of the proposed methodological approach, the results in the experimental group became more stable and consistent, which was reflected in the reduction of the variation coefficient. The final results demonstrated that the experimental group achieved significantly higher indicators compared to the control group. This outcome suggests that the applied methodology was effective and that the improvements observed were statistically reliable.

The analysis of body length indicators among preschool children also revealed similar trends. At the beginning of the research, the average body length in the control group was **113.69±16.35 cm**, with a variation rate of **16.1%**. In the experimental group of boys aged 5–6 years, the average body length at the initial stage was **110.08±18.37 cm**. Statistical calculations showed that the reliability level at the beginning of the study was **p>0.05**, indicating the absence of significant differences between the groups.

By the end of the research, the body length indicator in the control group slightly increased to **114.21±18.40 cm**, while the variation level remained **16.1%**. In the experimental group, the improvement in body length indicators was more noticeable, and statistical analysis demonstrated that the reliability level reached **p<0.05** with **t = 2.14**. These results confirm that the observed differences between the control and experimental groups were statistically significant. Comparative analysis showed that boys in the experimental group demonstrated greater growth dynamics, while the control group showed only minimal changes.

Another important indicator used to assess the level of physical development was chest circumference. At the beginning of the experiment, the average chest circumference in the control group was **53.43±5.79 cm**, with a variation rate of **10.8%**. The experimental group of boys aged 5–6 years demonstrated similar initial indicators, and statistical analysis confirmed that the reliability level was **p>0.05**, indicating comparable starting conditions between the groups.

At the end of the experiment, the average chest circumference in the control group slightly increased to **53.48±5.80 cm**, while the variation level remained almost unchanged. In the experimental group, however, the average chest circumference reached **55.43±5.51 cm**. Despite the observed increase, statistical analysis indicated that the reliability level remained **p>0.05**, suggesting that the differences between the groups were not statistically significant. Nevertheless, comparative analysis revealed that the experimental group demonstrated a positive tendency toward growth, while almost no changes were observed in the control group. It should also be noted that the initial indicators in both groups were very close, and although the differences after the experiment were relatively small, they still reflected positive dynamics in the experimental group.

In addition to anthropometric indicators, physiological parameters were also evaluated in order to determine the dynamics of physical development among preschool boys. One of the key indicators analyzed during pedagogical testing was the **heart rate (number of heart contractions per minute)**. At the beginning of the experiment, the average heart rate in the control group was **100.65±11.17 beats per minute**, with a variation rate of **11.1%**. In the experimental group, the average heart rate at the initial stage was **102.79±11.29 beats per minute**, and the variation coefficient was **10.9%**, with **t = 0.58**. The reliability level at this stage was **p>0.05**, indicating no significant statistical differences between the groups.

By the end of the experiment, the heart rate indicators changed in both groups. In the control group, the average result slightly decreased to **99.76±10.91 beats per minute**. In the experimental group, after applying the developed methodology, the average heart rate decreased more noticeably to **93.01±9.10 beats per minute**, while the variation coefficient decreased to **9.6%**, with **t = 2.07**. Statistical analysis showed that the reliability level reached **p<0.05**, indicating that the differences were statistically significant.

Comparative analysis of the results obtained in the control and experimental groups demonstrated that after the application of the proposed methodology, the indicators in the experimental group became more stable and consistent. The reduction in variation coefficients suggests an improvement in the functional condition of the children's bodies. Overall, the final results of the experiment clearly show that the experimental group achieved significantly better outcomes compared to the control group.

These findings confirm that the methodology developed and implemented during the research process was effective in improving the physical development indicators of preschool children. The statistically significant differences observed in several indicators demonstrate that the proposed system of special exercises and physical activities contributes positively to the development of children's motor activity and general physical condition.

In conclusion, it can be said that during the studies carried out, physical fitness indicators of preschoolers were determined, which did not have high physical development indicators, that physical indicators that did not have this high development dynamics could be improved through correctly selected means in the process of their training. Tests and measurements showed that the dynamics of physical development indicators of children were at a low level, and their speed of running, agility, coordination and strength characteristics were not significantly developed. However, it has been found that these indicators can be significantly improved if systematic training is carried out on the basis of correctly selected tools and methods.

The effect of the tools and methods selected in the research process and used in training can also be seen from the results of the pupils of the Navoi regional preschool educational organization noted at the beginning and end of pedagogical experience. Experimental group children experienced significant growth compared to the control group. The methodology advanced in the development of running, agility, coordination and fast power qualities has had a positive impact. As a result of the special exercises and tests carried out, the speed, agility, strength and coordination of children were improved.

According to scientific research carried out in this direction before us, body weight increases with age. It was found that boys and girls who are lagging behind the development of the ability to maintain balance are left behind not only in absolute indicators in the weight of their bodies, but also in the annual amount of weight. The characteristics of lag taken into account in the selection, application and normalization of special physical exercises intended for the training of vestibular apparatus and motor analyzers, which are lagging behind the development of their coordination ability, engaged in the maintenance, formation and development of the function of balance in physical development, were determined by US

Bibliography:

1. Askarovich, R. A. (2022). The Role of Three-Level Sports Competitions in the Education of Human Moral Qualities. Web of Scholars: Multidimensional Research Journal, 1(6), 106-111.
2. Askarovich, R. A. (2025). STIMULATION OF PHYSICAL ACTIVITY OF PRESCHOOL CHILDREN. Journal of Modern Educational Achievements, 4, 40-45.

3. Rustamov, A. A., & Ikromboyev, A. (2024). Mechanisms for the development of preschool children through the means of physical education. Proximus Journal of Sports Science and Physical Education, 1(4), 51-55.
4. Askarovich, R. A. (2025). METHODOLOGY FOR IMPROVING THE PHYSICAL FITNESS OF PRESCHOOL CHILDREN. Journal of Modern Educational Achievements, 4, 34-39.
5. Sadullayevich, N. S., Askarovich, R. A., Rustamovich, H. U., & Ilkhomovich, M. M. F. (2024). Innovative Techniques For Developing Physical Qualities Of Preschoolers Through Selected Special Exercises. Frontiers in Health Informatics, 13(6).