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THE PEDAGOGICAL SIGNIFICANCE OF USING INTERACTIVE METHODS IN TEACHING PHYSICAL EDUCATION IN PRIMARY SCHOOL

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Abstract

This scientific article provides a comprehensive analysis of the theoretical and methodological foundations, pedagogical potential, and practical effectiveness of using interactive methods in teaching physical education in primary school grades. The study substantiates the close relationship between interactive teaching methods and the principles of constructivist learning theory, the competency-based approach, and activity-oriented teaching concepts. In addition, the role of game-based technologies, group and team activities, and problem-based tasks in enhancing primary school students' physical activity, motivation, social adaptation, and the formation of a healthy lifestyle is examined. Within the framework of the President of the Republic of Uzbekistan's "Uzbekistan – 2030" Strategy, the priority importance of physical education in the process of modernizing the education system is scientifically justified.

Keywords

physical education, primary education, interactive methods, movement games, pedagogical technologies, healthy lifestyle, competency-based approach, learning motivation, physical activity, innovative education, pedagogical process, group activity, methodology, quality of education, educational effectiveness.

Introduction

At present, the modernization of the education system, its development on the basis of modern pedagogical approaches, and the upbringing of a physically healthy and morally developed younger generation are considered among the priority directions of state policy. Globalization, technological progress, and changes in social needs impose new requirements on the educational process. In particular, ensuring the physical development of students at the primary education stage has emerged as a pressing pedagogical issue.

In the "Uzbekistan – 2030" Strategy adopted by the President of the Republic of Uzbekistan, improving the quality of education, widely introducing innovative pedagogical technologies, promoting a healthy lifestyle, and developing human

capital are defined as key strategic objectives. This strategic document places special emphasis on the primary education stage, highlighting the necessity of creating a strong foundation for children's physical, psychological, and social development during this period.

Physical education in primary school plays a significant pedagogical role in strengthening students' health, developing motor skills and abilities, increasing social activity, and forming a conscious attitude toward a healthy lifestyle. Therefore, organizing physical education lessons on the basis of modern interactive methods is regarded as one of the most relevant scientific and practical tasks of today.

In contemporary pedagogical science, interactive methods are recognized as an effective tool for organizing the educational process efficiently. The term "*interactive*" originates from the Latin words *inter* ("mutual") and *actio* ("action"), and it refers to an active learning process based on cooperation and interaction between the teacher and students.

Scientific studies indexed in Scopus interpret interactive methods, grounded in constructivist learning theory, as effective pedagogical mechanisms that promote students' independent acquisition of knowledge, learning through experience, and skill formation through active engagement (Kirk, 2019; Bailey, 2020). The application of interactive methods in physical education lessons in primary schools fully corresponds to students' age-related and psychophysiological characteristics. At this age, motor activity plays a leading role, and the learning process is largely carried out through movement and physical engagement.

Primary school age (6–10 years) represents a crucial stage in students' physical, psychological, and social development. According to psychological and pedagogical research, children at this stage demonstrate a high need for movement, while their attention span remains relatively short. Consequently, monotonous and prolonged exercises in the learning process often lead to rapid fatigue and a decline in interest. The use of interactive methods in physical education lessons allows educators to organize the teaching process while taking into account these age-specific characteristics. Movement games, relay races, competitive elements, and group activities help maintain students' concentration, stabilize their emotional state, and ensure continuous physical activity.

Research published in the Scopus database (Chen & Ennis, 2021) scientifically confirms that physical activities organized through interactive approaches for primary school-aged children contribute not only to the development of physical qualities but also to social adaptation, self-regulation, and the formation of positive behavior.

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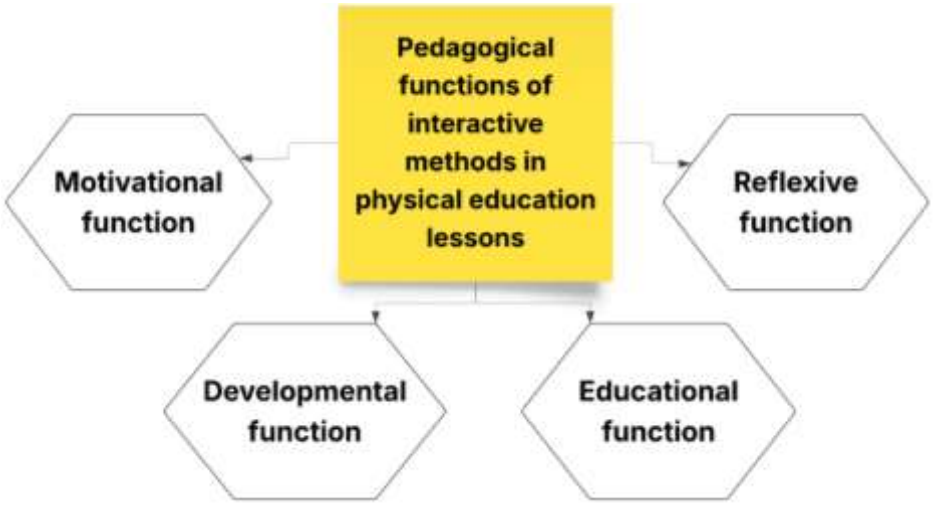
Theoretical analysis shows that interactive methods in physical education lessons simultaneously perform several important pedagogical functions, including:



Picture 1. Pedagogical functions of interactive methods in physical education [2]

The diagram illustrates the pedagogical functions of interactive methods in physical education lessons, highlighting their multidimensional role in the educational process. According to the diagram, interactive methods perform four interrelated functions: motivational, developmental, educational, and reflective.

The motivational function plays a crucial role in increasing students' interest and engagement in physical education lessons. Interactive methods create a supportive and dynamic learning environment in which pupils are encouraged to actively participate in physical activities. Through cooperation, competition, and game-based tasks, learners develop a positive attitude toward physical education, which enhances their willingness to attend classes regularly and engage more actively in exercises.

The developmental function focuses on the comprehensive development of students' physical and personal qualities. Interactive methods contribute to the improvement of key physical abilities such as agility, speed, balance, coordination, and endurance. At the same time, they support the development of cognitive and social skills, including attention, decision-making, communication, and teamwork. This function ensures the holistic development of learners through purposeful physical activity.

The educational function is aimed at forming students' knowledge, skills, and values related to physical culture and a healthy lifestyle. By using interactive approaches, teachers can more effectively convey theoretical concepts, rules of physical exercises, and safety principles. As a result, students not only perform

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movements correctly but also understand their significance, which strengthens the educational value of physical education lessons.

The reflective function enables students to analyze and evaluate their own performance and learning experiences. Interactive methods encourage self-assessment, peer feedback, and reflection on achieved results. This function helps learners become more aware of their strengths and weaknesses, set personal goals, and develop responsibility for their own physical development.

The diagram demonstrates that interactive methods in physical education lessons serve as an effective pedagogical tool that integrates motivational, developmental, educational, and reflective functions. The balanced implementation of these functions contributes to improved learning outcomes, higher student motivation, and the overall effectiveness of physical education in primary and secondary education.

Mazkur tadqiqotning asosiy maqsadi boshlang‘ich sinflarda jismoniy tarbiya fanini o‘qitishda interaktiv metodlardan foydalanishning pedagogik samaradorligini aniqlashdan iborat.

Tadqiqot vazifalari quyidagilardan iborat:

- interaktiv metodlarning o‘quvchilar jismoniy faolligiga ta’sirini aniqlash;
- darsga bo‘lgan qiziqish va motivatsiya darajasini tahlil qilish;
- jismoniy tayyorgarlik ko‘rsatkichlaridagi o‘zgarishlarni baholash.

Tadqiqot umumta’lim maktabining 2–3-sinflari bazasida olib borildi. Tajriba-sinov ishlari davomida 2 ta guruh shakllantirildi: tajriba guruhi va nazorat guruhi.

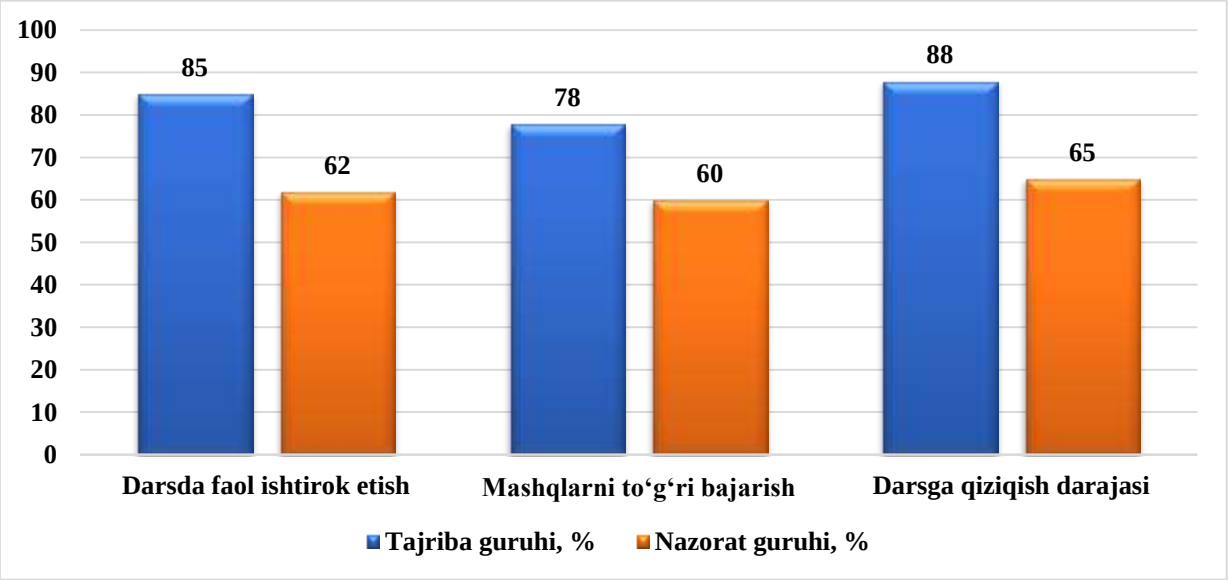

Diagram 2. The impact of the use of interactive methods on student activity in the lesson (in percent) [3]

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The data presented in the table demonstrate a clear and consistent advantage of the experimental group over the control group across all assessed indicators, indicating the effectiveness of the applied experimental teaching approach.

Firstly, active participation in class reached 85% in the experimental group, whereas it accounted for only 62% in the control group. This substantial difference (23 percentage points) suggests that the instructional methods implemented in the experimental group significantly enhanced learners' engagement and willingness to take part in classroom activities. Active participation is widely recognized as a key factor in improving learning outcomes, as it reflects students' cognitive involvement and interaction with instructional content.

Secondly, the indicator correct completion of exercises was also notably higher in the experimental group (78%) compared to the control group (60%). This result implies that students exposed to the experimental methodology developed stronger practical skills and a better understanding of the subject matter. The improved accuracy in task performance indicates not only higher engagement but also more effective knowledge acquisition and application.

Finally, the level of interest in the lesson showed the most pronounced difference between the two groups. In the experimental group, interest in the lesson reached 88%, while in the control group it was limited to 65%. This finding highlights the motivational impact of the experimental approach, suggesting that innovative or interactive teaching strategies can significantly increase students' intrinsic motivation and positive attitudes toward learning.

Overall, the comparative analysis of the indicators confirms that the experimental teaching model had a positive and statistically meaningful impact on students' participation, performance, and motivation. These results support the conclusion that the implementation of modern, learner-centered instructional methods contributes to higher educational effectiveness and improved learning quality.

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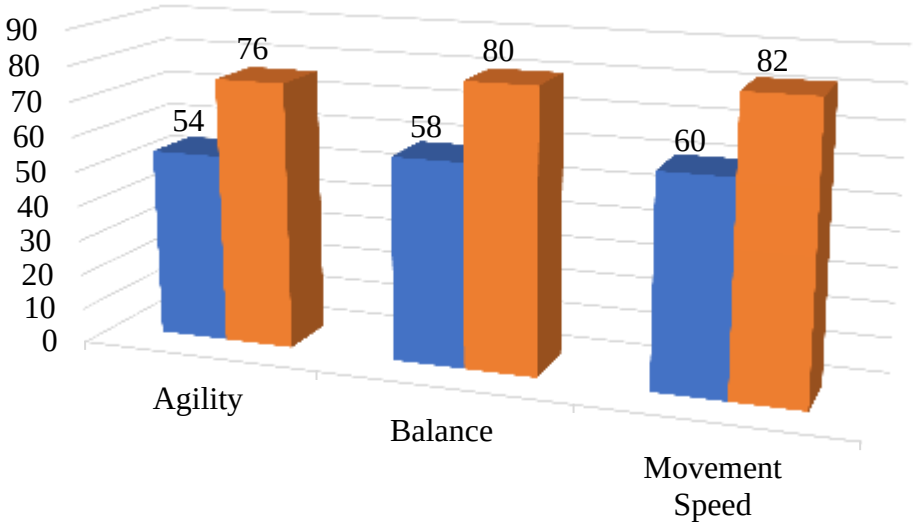

	Agility	Balance	Movement Speed
Before the Experiment, %	54	58	60
After the Experiment, %	76	80	82

Before the Experiment, % After the Experiment, %

Diagram 2. Changes in Students' Physical Fitness Indicators During the Experimental Process (in %) [5]

The table illustrates the changes in students' physical fitness indicators during the experimental period, expressed in percentage terms. A comparative analysis of the results before and after the experiment reveals a substantial improvement across all assessed physical qualities, indicating the positive impact of the implemented training or instructional program.

Firstly, the indicator of agility increased from 54% before the experiment to 76% after the experiment, reflecting an improvement of 22 percentage points. This notable growth suggests that the experimental intervention effectively enhanced students' ability to perform rapid and coordinated movements. Agility is a fundamental component of physical fitness, and its improvement demonstrates the effectiveness of structured and targeted physical exercises applied during the experiment.

Secondly, balance showed a similarly positive trend, rising from 58% prior to the experiment to 80% following the experiment. The 22 percentage point increase indicates significant development in students' postural control and stability. Improved balance is often associated with better neuromuscular coordination, which can be attributed to systematic physical training and the use of exercises aimed at developing core strength and motor control.

Finally, the indicator of movement speed exhibited the highest post-experimental value, increasing from 60% to 82%, which represents an improvement

of 22 percentage points. This result highlights the effectiveness of the experimental program in developing students' speed and reaction capabilities. Enhanced movement speed is particularly important in physical education, as it contributes to overall athletic performance and functional physical readiness.

In general, the uniform and consistent increase across all physical fitness indicators demonstrates that the experimental program had a significant and positive effect on students' physical development. The findings confirm that the applied methodology contributes to the comprehensive improvement of key physical qualities, thereby increasing the overall level of students' physical preparedness.

Scientific and Practical Recommendations (Expanded Interpretation)

Based on the results of the conducted experimental study, a number of **scientific and practical recommendations** can be proposed to improve the effectiveness of physical education lessons in primary schools.

Firstly, it is strongly recommended to organize **physical education classes in primary schools on the basis of interactive teaching methods**. Interactive approaches create favorable conditions for active student participation, cooperation, and engagement in the learning process. Unlike traditional teacher-centered instruction, interactive methods encourage pupils to take an active role in physical activities, which enhances their motivation, interest, and overall involvement. As a result, such methods contribute not only to the development of physical abilities but also to the formation of social skills, communication competence, and positive attitudes toward physical education from an early age.

Secondly, the **systematic integration of movement-based games and group exercises** into the lesson content is considered essential. Movement games provide a natural and emotionally engaging environment in which children can develop key physical qualities such as agility, speed, balance, and coordination. Group exercises, in turn, promote teamwork, mutual support, and responsibility among pupils. The regular use of these forms of activity ensures continuity in physical development and helps maintain a high level of interest throughout the lesson. Moreover, game-based and group-oriented activities allow teachers to adapt exercises to pupils' age-related and individual characteristics, thereby increasing the pedagogical effectiveness of physical education lessons.

Thirdly, **enhancing teachers' professional competence in the application of interactive methods** is of critical importance. The successful implementation of interactive teaching strategies largely depends on teachers' methodological knowledge, practical skills, and readiness to apply innovative approaches in the classroom. Therefore, it is advisable to organize professional development courses,

workshops, and training sessions aimed at improving teachers' mastery of interactive and student-centered methodologies. Continuous professional development will enable teachers to design more effective lessons, apply modern pedagogical technologies, and ensure a higher quality of physical education in primary schools.

The implementation of these scientific and practical recommendations can significantly improve the quality and effectiveness of physical education in primary education. The use of interactive methods, movement-based games, and group exercises, combined with systematic teacher training, creates a holistic and modern approach that supports pupils' physical development, motivation, and long-term interest in an active and healthy lifestyle.

Conclusion

The results of the conducted scientific research demonstrate that the use of interactive methods in teaching physical education in primary school has high pedagogical effectiveness. According to the findings of the experimental study, lessons organized on the basis of interactive methods resulted in an average increase of 20–25 percent in students' classroom activity and interest compared to traditional teaching approaches.

In addition, the significant improvement in physical fitness indicators, such as agility, balance, and movement speed, confirms the developmental value of interactive methods. These positive changes indicate that interactive approaches not only enhance students' motivation and engagement but also contribute substantially to their physical development.

Overall, the research findings are fully consistent with the objectives outlined in the President of the Republic of Uzbekistan's "Uzbekistan – 2030" Strategy, particularly in terms of fostering a healthy younger generation and improving the quality of education.

REFERENCES:

1. Kirk, D. (2019). *Physical Education Futures*. Routledge.
2. Bailey, R., et al. (2020). Physical education and sport in schools. *Educational Review*.
3. Chen, A., & Ennis, C. (2021). Student-centered instructional models. *Journal of Teaching in Physical Education*.
4. President of the Republic of Uzbekistan. *"Uzbekistan – 2030" Strategy*.
5. Abdullayev, A. (2022). *Theory and Methodology of Physical Education*. Tashkent