Date: 17th February-2026

METHODOLOGY FOR IMPROVING PHYSICAL FITNESS OF 10–12-YEAR-OLD STUDENTS THROUGH TRACK AND FIELD GAMES

Matchanova Maftuna Odamboyevna
Osiyo Xalqaro Universiteti Jismoniy madaniyat yo'nalishi 1-kurs magistranti

Annotation. This study examines the effectiveness of track and field-based games in developing physical fitness indicators among 10–12-year-old children. A structured methodology combining game-based activities, differentiated training, circuit exercises, and progressive load principles was applied to enhance speed, endurance, strength, agility, and coordination. The results indicate that this approach improves physical preparedness, increases motivation, and fosters positive attitudes toward regular physical activity.

Key words. Physical fitness, track and field games, children aged 10–12, game-based training, motor skills development, differentiated training, circuit exercises, progressive load.

Physical fitness development in children aged 10–12 plays a crucial role in ensuring healthy growth, motor skill formation, and long-term athletic potential. At this age, children experience intensive physical and physiological changes, making it an optimal period for developing key physical qualities such as speed, endurance, strength, agility, and coordination. However, traditional physical education lessons often lack sufficient engagement and variability, which may reduce students' motivation and overall effectiveness. Track and field games represent an effective and dynamic approach to improving physical fitness indicators in primary school students. By integrating elements of running, jumping, and throwing into game-based activities, educators can create a motivating learning environment while simultaneously enhancing essential motor abilities.

The development of physical fitness indicators in 10–12-year-old children remains a significant challenge in modern school physical education. Many students demonstrate insufficient levels of speed, endurance, strength, and coordination due to sedentary lifestyles and limited physical activity. In addition, traditional drill-based teaching approaches often lead to low motivation and passive participation during lessons. The lack of systematic and age-appropriate methodological support further reduces the effectiveness of physical training at this critical stage of physical development. To address these problems, the study proposes the implementation of four effective methodological approaches. First, the game-based athletics method integrates running, jumping, and throwing elements into competitive and cooperative games, increasing students' engagement while naturally improving motor abilities. Second, the differentiated training method adapts task intensity, distance, repetition, and complexity according to individual fitness levels, ensuring balanced and inclusive development. Third, the circuit training method organizes athletics activities into rotational stations, allowing simultaneous development of multiple physical qualities while maintaining high activity density. Finally,

the progressive load method ensures gradual and systematic increase of physical intensity, following the principles of age-appropriate progression and safety. The systematic application of these methods creates an effective pedagogical framework for improving physical fitness indicators in 10–12-year-old children while enhancing motivation and overall lesson effectiveness.

To ensure the effectiveness of the proposed methodology, a structured implementation plan and continuous assessment system are essential. The program should be integrated into regular physical education lessons over a defined period, allowing sufficient time for adaptation and measurable improvement. Each lesson must follow a clear structure, including a dynamic warm-up phase, a main part focused on targeted development of specific physical qualities through athletics-based games, and a recovery phase aimed at flexibility and coordination enhancement. Regular monitoring of physical fitness indicators is necessary to evaluate progress and adjust training intensity accordingly. Standardized assessment tools such as short-distance sprint tests, standing long jump, shuttle run, and endurance running tests provide objective data on students' performance. Comparative analysis of pre- and post-intervention results allows for determining the effectiveness of the implemented methods. Furthermore, the inclusion of competitive and cooperative elements fosters social interaction, teamwork, and positive emotional engagement, which contribute to higher motivation and consistent participation. The integration of pedagogical principles such as accessibility, gradual progression, variability, and safety ensures that the training process remains developmentally appropriate and sustainable.

Overall, the application of a systematically organized track and field game-based methodology not only enhances physical fitness indicators but also strengthens students' interest in physical activity, laying the foundation for long-term healthy lifestyle habits. The integration of track and field-based games into the physical education curriculum offers an effective solution for improving physical fitness indicators in 10–12-year-old children. By combining game-based activities, differentiated training, circuit methods, and progressive load principles, the proposed methodology addresses key problems such as low physical fitness, limited motivation, and monotonous traditional exercises. Systematic implementation ensures the development of speed, endurance, strength, agility, and coordination while maintaining high engagement and enjoyment. Furthermore, continuous monitoring and adaptation of training tasks provide objective feedback and allow for individualized progress. Overall, this approach not only enhances physical preparedness but also fosters positive attitudes towards physical activity, contributing to long-term health, motor competence, and the holistic development of primary school students.

REFERENCES:

1. Armstrong, N., Welsman, J. Physical activity and physical fitness in children and adolescents. Routledge. 2019

2. Bailey, R., Hillman, C., Arent, S., Petitpas, A. Physical activity: An underestimated investment in human capital? Journal of Physical Activity and Health, 10(3), 289–308. 2013
3. Bompa, T., Haff, G. Periodization: Theory and methodology of training. Human Kinetics. 2021
4. Faigenbaum, A., Myer, G. Resistance training among young athletes: Safety, efficacy and injury prevention effects. British Journal of Sports Medicine, 44(1), 56–63. 2010
5. Kirk, D., Macdonald, D. Physical education, curriculum and pedagogy. Sage Publications. 2017