

PEDAGOGICAL BASIS OF DEVELOPING PHYSICAL TRAINING OF SCHOOL STUDENTS ENGAGED IN HANDBALL SPORT

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Abstract

This article examines the pedagogical basis of developing physical training among school students engaged in handball sport. Handball is a dynamic team game that requires speed, agility, coordination, endurance, strength, flexibility, tactical thinking and emotional stability. Therefore, the organization of physical training in school-age athletes should be based not only on general physical development, but also on age-specific, sport-specific and pedagogically grounded approaches. The article highlights the importance of systematic training, gradual increase of loads, individualization of exercises, motivation, health protection and the integration of technical-tactical preparation with physical development. Special attention is paid to the role of the teacher-coach in forming correct movement skills, maintaining students' interest in sport and preventing overload during training. The study emphasizes that effective physical training in handball contributes to the development of motor abilities, discipline, teamwork, self-control and competitive readiness. The pedagogical organization of handball training in schools can serve as an important factor in improving students' physical culture and preparing them for further sports specialization.

Keywords: Handball, school students, physical training, pedagogical basis, motor abilities, sports education, training process, physical development.

Introduction

GANDBOL SPORTI BILAN SHUG‘ULLANUVCHI MAKTAB O‘QUVCHILARINING JISMONIY TAYYORGARLIGINI RIVOJLANTIRISHNING PEDAGOGIK ASOSLARI.

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Annotatsiya:

Ushbu maqolada gandbol sporti bilan shug‘ullanuvchi maktab o‘quvchilarining jismoniy tayyorgarligini rivojlantirishning pedagogik asoslari yoritilgan. Gandbol tezkorlik, chaqqonlik, koordinatsiya, chidamlilik, kuch, egiluvchanlik, taktik fikrlash va emotsional barqarorlikni talab qiladigan dinamik jamoaviy sport turi hisoblanadi. Shu sababli maktab yoshidagi sportchilarning jismoniy tayyorgarligini tashkil etish faqat umumiy jismoniy rivojlanishga emas, balki yosh xususiyatlari, sport turining o‘ziga xos talablari va pedagogik jihatdan asoslangan yondashuvlarga tayanishi lozim. Maqolada mashg‘ulotlarning tizimliliği, yuklamalarni bosqichma-bosqich oshirish, mashqlarni individuallashtirish, motivatsiyani shakllantirish, sog‘liqni muhofaza qilish hamda texnik-taktik tayyorgarlikni jismoniy rivojlanish bilan uyg‘unlashtirish masalalariga e‘tibor qaratiladi. Shuningdek, o‘qituvchi-murabbiyning harakat ko‘nikmalarini to‘g‘ri shakllantirish, o‘quvchilarning sportga qiziqishini saqlab qolish va mashg‘ulot jarayonida ortiqcha zo‘riqlashlarning oldini olishdagi roli tahlil qilinadi. Tadqiqotda gandbol mashg‘ulotlarida samarali jismoniy tayyorgarlik o‘quvchilarning harakat qobiliyatlari, intizomi, jamoaviy hamkorligi, o‘zini nazorat qilish ko‘nikmalari va musobaqaviy tayyorgarligini rivojlantirishga xizmat qilishi asoslab beriladi.

Kalit so‘zlar: gandbol, maktab o‘quvchilari, jismoniy tayyorgarlik, pedagogik asos, harakat qobiliyatlari, sport ta‘limi, mashg‘ulot jarayoni, jismoniy rivojlanish.

Introduction

Handball is one of the most effective team sports for the comprehensive physical development of school students, because it combines running, jumping, throwing,

catching, sudden changes of direction, defensive movements and coordinated interaction with teammates. In the system of school sports education, handball has special pedagogical value, since it develops not only physical qualities but also discipline, responsibility, cooperation, initiative and the ability to make quick decisions in changing game situations. For students of school age, this sport creates favorable conditions for strengthening health, improving motor activity and forming a stable interest in regular physical exercise.

The development of physical training in handball should be considered as a purposeful pedagogical process based on age characteristics, individual abilities, health condition and the level of motor preparedness of students. School students are in a period of intensive growth and functional development, therefore training loads must be organized carefully and scientifically. Excessive physical load, monotonous exercises or ignoring individual differences may reduce motivation and cause fatigue or injuries. For this reason, the teacher-coach must apply gradual, systematic and differentiated methods that correspond to the physiological and psychological development of learners.

Physical training in handball includes the development of general and special motor abilities. General physical training is aimed at strengthening the body, improving endurance, flexibility, coordination, speed and basic strength. Special physical training is directly connected with handball actions such as fast acceleration, vertical jumps, rapid defensive movements, explosive throws, quick passes and repeated high-intensity movements during the game. The unity of these two directions ensures that students not only become physically stronger, but also learn to apply their abilities effectively in real game conditions.

The pedagogical basis of physical training also requires the integration of physical, technical and tactical preparation. In handball, physical qualities are meaningful only when they are connected with purposeful game actions. For example, speed is important not only as running ability, but also as the capacity to move into free space, return quickly to defense and react to the opponent's actions. Strength is necessary not only for throwing the ball, but also for maintaining balance during contact and performing stable movements under pressure. Coordination helps students catch, pass and shoot accurately while moving at high speed.

In the educational environment of Uzbekistan, the development of school sports and the promotion of a healthy lifestyle among young people are important

directions of pedagogical practice. Handball can be used as an effective means of increasing students' physical activity, organizing meaningful extracurricular training and preparing talented learners for further sports specialization. At the same time, the main aim of school handball training should not be limited to competitive results. It must also support students' physical culture, moral development, communication skills and positive attitude toward sport.

Therefore, studying the pedagogical basis of developing physical training among school students engaged in handball is relevant for sports pedagogy, physical education methodology and youth sport practice. A well-organized handball training process allows students to improve their physical abilities, master movement culture, develop teamwork and strengthen volitional qualities. The effectiveness of this process depends on the professional competence of the teacher-coach, the correct selection of exercises, the rational distribution of training loads and the creation of a motivating educational environment.

Methods

The methodological basis of this study is formed by pedagogical observation, analysis of scientific-methodical literature, assessment of students' physical preparedness and generalization of practical experience in school handball training. The research approach is directed toward identifying effective pedagogical conditions for developing physical training among school students engaged in handball. Since handball requires the interaction of various motor abilities, the methods used in the training process must combine general developmental exercises, special handball drills, game-based tasks and differentiated pedagogical control.

At the first stage, the physical and age-related characteristics of school students are taken into account. Students are conditionally divided according to their level of physical preparedness, training experience and functional capacity. This allows the teacher-coach to avoid a uniform approach and to organize exercises in accordance with the real abilities of learners. Special attention is paid to the development of speed, agility, endurance, coordination, strength and flexibility, because these qualities directly influence the effectiveness of technical and tactical actions in handball. The training process is planned gradually, moving from simple exercises to more complex motor tasks.

Pedagogical observation is used to study students' participation in training sessions, their interest in exercises, quality of movement performance, fatigue level and ability to cooperate in team actions. During observation, the teacher-coach evaluates how students perform running exercises, jumps, passes, catches, throws, defensive movements and transitions from attack to defense. This method helps to identify individual difficulties and correct them in time. Observation also allows the teacher to assess students' motivation, discipline, emotional stability and readiness to participate actively in the training process.

The assessment of physical preparedness is carried out through control exercises that reflect the specific requirements of handball. These may include short-distance running for speed, shuttle running for agility, standing long jump for explosive power, medicine ball throwing for upper-body strength, endurance running for general stamina and coordination exercises with the ball. The results of these tests help determine the initial level of students' physical development and monitor changes during the training period. Such diagnostics are important for planning further pedagogical work and selecting appropriate exercises.

The training methodology includes general physical preparation, special physical preparation and game-based preparation. General physical preparation is organized through running, jumping, stretching, bodyweight exercises, relay races and coordination tasks. Special physical preparation includes exercises with the ball, rapid changes of direction, throwing movements, defensive footwork, acceleration after receiving the ball and repeated high-intensity actions similar to game situations. Game-based preparation is implemented through simplified handball games, small-sided games, competitive tasks and tactical exercises that combine physical load with decision-making.

The principle of gradualness is used as one of the main pedagogical conditions. Training load is increased step by step according to students' adaptation. The volume, intensity and complexity of exercises are regulated by the teacher-coach. Rest intervals, emotional atmosphere and safety requirements are also considered. In order to maintain students' interest, the methodology includes variety, competition, cooperation and positive feedback. The teacher explains the purpose of each exercise, demonstrates correct technique and encourages students to analyze their own performance.

Thus, the methods used in the study are aimed at ensuring a balanced development of physical abilities, technical skills and personal qualities of school

students engaged in handball. The combination of observation, testing, differentiated training and pedagogical correction makes it possible to organize the educational-training process in a scientifically grounded and practically effective way.

Results

The results of the study show that the development of physical training among school students engaged in handball becomes more effective when the training process is organized on the basis of systematic, age-appropriate and pedagogically controlled activities. Students who participate in regular handball training demonstrate noticeable improvement in speed, agility, coordination, endurance and explosive strength. These changes are especially evident in exercises that require rapid acceleration, quick stopping, change of direction, jumping and throwing actions. Since handball is based on repeated high-intensity movements, the improvement of these qualities directly increases students' ability to participate actively in game situations.

One of the main observed results is the growth of students' general motor preparedness. At the beginning of training, many learners may experience difficulty in coordinating running with ball handling, performing accurate passes while moving, or maintaining balance during defensive actions. After systematic use of general and special physical exercises, students begin to perform movements more confidently and economically. Their running technique becomes more stable, jumping movements become more powerful, and hand-eye coordination improves during catching and passing exercises. This indicates that handball training positively influences the formation of complex motor skills.

The development of special physical preparedness is also clearly reflected in students' game performance. Learners who improve their speed and agility are able to move more effectively in attack and defense, open free space, return to their defensive position and react quickly to the opponent's actions. Improvement in explosive strength supports more powerful throws and higher jumps, while better endurance allows students to maintain activity throughout the game without rapid fatigue. As a result, physical qualities become closely connected with technical and tactical effectiveness.

The study also shows that differentiated training has a positive effect on students' progress. When exercises are selected according to the level of preparedness,

students participate more willingly and avoid unnecessary psychological pressure. Stronger students are given more complex tasks, while students with lower preparedness receive exercises that correspond to their abilities and gradually lead them to improvement. This approach helps maintain motivation and creates a favorable educational atmosphere. Students feel personal progress, which increases their interest in handball and physical education in general.

Another important result is the strengthening of students' discipline, teamwork and communicative behavior. Handball requires constant cooperation, mutual support and quick exchange of information between players. During training, students learn to listen to the teacher-coach, follow rules, respect teammates and accept responsibility for their role in the team. These qualities are pedagogically significant because school sport should develop not only physical abilities but also moral-volitional and social qualities.

The use of game-based exercises produces particularly effective results. Small-sided games, relay competitions, simplified tactical tasks and exercises with changing conditions help students apply physical abilities in practical situations. Such methods increase emotional involvement and reduce monotony in training. Students become more active, attentive and creative in solving game problems. Therefore, physical training in handball should not be limited to isolated exercises; it should be connected with real playing actions.

The results confirm that the pedagogical basis of developing physical training in school handball consists of the unity of physical load regulation, technical instruction, motivation, safety, individualization and systematic control. When these conditions are applied consistently, handball becomes an effective means of improving school students' physical development, sports preparedness and personal growth.

Discussion

The development of physical training among school students engaged in handball should be understood as a complex pedagogical process in which physical, technical, tactical, psychological and educational components are closely connected. Handball is not limited to mechanical performance of movements; it requires the student to act quickly, make decisions under pressure, cooperate with teammates and adapt to constantly changing game situations. Therefore, the effectiveness of physical training depends not only on the number of exercises

performed, but also on the pedagogical quality of their organization, explanation, correction and application in practice.

One of the most important issues in school handball training is the correct balance between general physical preparation and special physical preparation. General physical preparation creates the functional foundation for students' health, posture, endurance, flexibility and basic motor culture. Without this foundation, it is difficult for students to perform more complex handball movements safely and effectively. At the same time, special physical preparation ensures that the developed abilities are directly connected with the requirements of the game. For example, agility exercises become more meaningful when they are performed together with ball control, defensive movement or a quick transition from attack to defense. This confirms that physical training should be integrated with the real structure of handball activity.

Age characteristics play a decisive role in the planning of training loads. School students differ from adult athletes in their functional capacity, emotional stability, attention span and ability to recover after physical effort. For this reason, the teacher-coach should avoid excessive specialization at early stages and focus on gradual, varied and health-oriented development. Training should strengthen students' bodies, form correct movement habits and increase their interest in sport. If the training process is overloaded with difficult tasks or constant competitive pressure, students may lose motivation or experience physical fatigue. A pedagogically correct approach requires the use of positive encouragement, achievable goals and regular monitoring of students' condition. The discussion also shows that individualization is one of the key conditions for successful physical training. In one school group, students may have different levels of speed, strength, coordination and endurance. Some learners quickly master ball movements, while others need more time to develop confidence and accuracy. A uniform training program may benefit only part of the group, whereas differentiated exercises allow every student to progress according to personal ability. This approach corresponds to modern principles of sports pedagogy, where the learner is considered an active participant of the educational-training process.

The role of the teacher-coach is especially significant. The teacher must not only demonstrate exercises and control discipline, but also create a motivating environment, explain the purpose of training tasks, correct mistakes in time and

ensure safety. In school handball, pedagogical communication has strong educational influence. When students understand why they perform certain exercises, they become more conscious, responsible and active. The teacher's feedback helps learners evaluate their own progress and develop self-control.

Another important aspect is the educational value of handball. Through regular training, students develop persistence, courage, mutual respect, teamwork and emotional stability. These qualities are necessary not only in sport but also in everyday life and learning activities. Thus, the pedagogical basis of physical training in handball should be directed toward the harmonious development of the student's body, mind and personality. Effective school handball training can become a powerful means of forming a healthy lifestyle, strengthening social interaction and preparing students for future sports and educational achievements.

Conclusion

The pedagogical basis of developing physical training among school students engaged in handball is determined by the correct organization of the educational-training process, the consideration of age and individual characteristics, the gradual increase of physical loads and the integration of physical exercises with technical and tactical actions. Handball is a highly dynamic sport that requires speed, agility, coordination, strength, endurance, flexibility and rapid decision-making. For this reason, the physical preparation of school students should not be limited to separate motor exercises, but should be connected with real game situations, movement culture and the formation of conscious sports behavior.

The analysis shows that effective handball training at school age must be based on the unity of general and special physical preparation. General physical preparation strengthens the body, improves health, develops basic motor abilities and prepares students for more complex sports actions. Special physical preparation helps students apply these abilities in handball-specific conditions, including fast movement, ball handling, jumping, throwing, defensive footwork and transition from attack to defense. When these two directions are organized in a balanced way, students achieve more stable physical development and demonstrate better performance during training and games.

A significant conclusion is that the role of the teacher-coach is central in this process. The teacher-coach plans the training content, selects exercises, regulates load intensity, observes students' condition, corrects mistakes and creates a

positive motivational environment. In school sport, pedagogical influence is as important as physical load itself. Students need explanation, encouragement, feedback and emotional support in order to understand the purpose of training and remain interested in regular participation. A competent teacher-coach helps students develop not only physical abilities but also discipline, responsibility, teamwork and self-control.

The study also confirms the importance of individualization and differentiation. School students differ in their physical preparedness, learning speed, psychological readiness and previous sports experience. Therefore, the same training task may be too easy for one student and too difficult for another. Differentiated exercises make it possible to involve all learners actively and ensure gradual progress for each of them. This approach prevents overload, increases motivation and supports a humane pedagogical environment in sports education.

The development of physical training in handball also contributes to broader educational goals. Through handball, students learn cooperation, respect for rules, fair play, communication and persistence. These qualities are essential for personal development and social adaptation. In this sense, handball can be considered not only a means of sports preparation, but also an important pedagogical tool for forming a healthy lifestyle and positive character traits among school students.

Thus, the effectiveness of developing physical training among school students engaged in handball depends on systematic planning, scientifically grounded exercise selection, health-oriented load regulation, pedagogical control and the integration of physical, technical, tactical and educational tasks. When these conditions are consistently implemented, handball training becomes an effective means of improving students' physical development, strengthening their motivation for sport and preparing them for active participation in school and extracurricular sports activities.

References

1. Abdullayev, A., & Xonkeldiyev, Sh. X. (2005). Jismoniy tarbiya nazariyasi va uslubiyati. O'zDJTI nashriyoti.
2. Balyi, I., Way, R., & Higgs, C. (2013). Long-term athlete development. Human Kinetics.

3. Bompa, T. O., & Buzzichelli, C. A. (2015). Periodization training for sports. Human Kinetics.
4. Bompa, T. O., & Haff, G. G. (2009). Periodization: Theory and methodology of training. Human Kinetics.
5. Faigenbaum, A. D., Kraemer, W. J., Blimkie, C. J. R., Jeffreys, I., Micheli, L. J., Nitka, M., & Rowland, T. W. (2009). Youth resistance training: Updated position statement paper from the National Strength and Conditioning Association. *Journal of Strength and Conditioning Research*, 23(5), S60–S79.
6. Gallahue, D. L., Ozmun, J. C., & Goodway, J. D. (2012). Understanding motor development: Infants, children, adolescents, adults. McGraw-Hill.
7. Gambetta, V. (2007). Athletic development: The art and science of functional sports conditioning. Human Kinetics.
8. Haywood, K. M., & Getchell, N. (2020). Life span motor development. Human Kinetics.
9. International Handball Federation. (n.d.). Teaching handball: Handball at school. International Handball Federation.
10. Kerimov, F. A. (2004). Sport sohasidagi ilmiy tadqiqotlar. Zar qalam.
11. Lloyd, R. S., & Oliver, J. L. (2012). The youth physical development model: A new approach to long-term athletic development. *Strength and Conditioning Journal*, 34(3), 61–72.
12. Lloyd, R. S., Cronin, J. B., Faigenbaum, A. D., Haff, G. G., Howard, R., Kraemer, W. J., Micheli, L. J., Myer, G. D., & Oliver, J. L. (2016). National Strength and Conditioning Association position statement on long-term athletic development. *Journal of Strength and Conditioning Research*, 30(6), 1491–1509.
13. Malina, R. M., Bouchard, C., & Bar-Or, O. (2004). Growth, maturation, and physical activity. Human Kinetics.
14. Martens, R. (2012). Successful coaching. Human Kinetics.
15. Matkarimov, R. M. (2018). Sport psixologiyasi. Fan va texnologiya.
16. Nurimov, R. I. (2005). Sport pedagogik mahoratini oshirish. O‘zDJTI nashriyoti.
17. Rink, J. E. (2014). Teaching physical education for learning. McGraw-Hill Education.
18. Salomov, R. S. (2007). Sport mashg‘ulotlarining nazariy asoslari. O‘zDJTI nashriyoti.

19. Schmidt, R. A., & Lee, T. D. (2019). Motor learning and performance: From principles to application. Human Kinetics.
20. Wagner, H., Finkenzeller, T., Würth, S., & von Duvillard, S. P. (2014). Individual and team performance in team-handball: A review. Journal of Sports Science & Medicine, 13(4), 808–816.