

## MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



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### METHODS OF DEVELOPING MOVEMENT SPEED OF YOUNG BASKETBALL PLAYERS

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#### ABOUT ARTICLE

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**Abstract:** In this article, the methods of developing the quickness of movement of young basketball players and solving tasks, including the development of quickness of movement using exercises that develop balance in sharp movements and develop quickness of movement in complex reactions in unexpected situations in basketball players of the primary preparatory stage of children's sports schools ways of scientific research based on scientific and practical experiences on the main stages of determining the dependence of anthropometric, morphofunctional and psychological conditions of basketball players in the exercises aimed at increasing the speed of movement are shown.

#### INTRODUCTION

Today, the issue of effective organization of the training process of young basketball players on a global scale based on an innovative approach is one of the important tasks facing the scientists of the field. In this regard, work is being carried out to increase the physical capabilities and qualities of young basketball players, to develop the basis of individual and team training, to develop the basis of training based on somatotype characteristics, and to form the skills of using training tools. However, the development of a set of exercises that increase the individual capabilities of young basketball players and the development of movement speed by improving it has not been studied as a separate research topic. Currently, special attention is being paid to the development of sports in every region of our Republic. In particular, it is important to increase and realize the creative and intellectual potential of the young generation, to form a healthy lifestyle among children and young

people, and to involve them in physical education and sports. In these processes, the responsibility for sports schools for children and teenagers is increasing. After all, sports schools for children and teenagers should fulfill the role of a unique school in attracting students to sports and increasing their physical activity. [1; p. 61, 3; p. 24, 7; p. 26].

### LITERATURE ANALYSIS

Basketball is becoming one of the effective and versatile means of physical education and personal health in our country. Regular practice of basketball has an effective effect on many important systems of the body and serves to develop them at a high level. For these reasons, sports play an important role in the physical education system of many countries. The sport of basketball is included in the programs of physical education of general education schools and universities specialized in sports games. Physical culture teams regularly play sports in sports sections and military units. The sport of basketball is used as a means of active recreation and leisure in many mass-sports events in indoor and outdoor sports fields, which brings pleasure to people with a sedentary lifestyle [4; pp. 21-26, 6; p. 26-29; 9; 331-b].

Playing basketball effectively affects many body functions and personal qualities of young children, including:

- important physical qualities based on basketball training: jumping, strength, speed, agility, endurance qualities are developed, flexibility, quickness, coordination and similar skills are formed;

- intellectual abilities of young children develop, sensory organs, and most mental states improve. It is a good testing ground for the formation of positive signs in this regard: hard work, striving for a goal, determination, confidence in victory, a sense of teamwork;

- drawing a conclusion about the full usefulness of playing basketball, like other sports, will certainly be a bit of an exaggeration. Taking into account that any living organism improves only in the process of exercises, their quantity and rate should not be neglected. Since the last centuries, doctors have argued that anything (in our case - exercise) can be medicine or poison for the body - everything depends on the norm. In particular, intensive training in the sport of basketball rarely makes the athlete healthy. Many injuries, physical and mental stress ultimately have a negative impact on the health of professional athletes;

- it is necessary to organize basketball training in such a way that these exercises do not hinder interest in sports, acquire a profession, be healthy, work efficiently, and solve family problems sincerely, but rather help. Only then playing basketball brings peace to the lives of students of higher education institutions. This interesting and useful sport leads to strong emotional experiences, and as a result of the exercises, one can feel that the functional systems of the body are improved, and many positive qualities of the basketball player are formed [1; p. 61, 3; p. 24, 8; p. 21].

In a number of studies, more attention is paid to the development of physical education and sports, improvement of technical and tactical training of athletes, and a separate study of the training system of highly qualified basketball players. However, the ways of using special exercises for the development of quickness of movement of the basketball players of the initial preparatory stage of the children's and teenagers' sports school have hardly been researched.

### RESEARCH METHODOLOGY

In this study, the analysis of theoretical literature, pedagogical observation, pedagogical testing of physical fitness, pedagogical experience, psychophysiological methods, analysis of documentary materials, question-and-answer and questionnaire, mathematical statistics methods were used.

### ANALYSIS AND RESULTS

The recommendations of the leading scientists and experts in the field of basketball theory and methodology made it possible to develop a comprehensive program of special physical and technical training for the course of the academic years and scientific justification in the main experiment.

At the initial training stage selected by us, the quality of agility was developed in young basketball players on the basis of 8 types of control exercises according to the "complex of exercises that develop quickness of movement". In this case, the exercises were calculated based on the unit of measurement, the repetition of the exercise was calculated based on the highest result, and the duration of the exercise was calculated based on the lowest indicator. Emphasis was also placed on the evaluation criteria of exercises according to the age level. Control exercises were classified in 3 directions. That is, a set of exercises was used, the first direction of which is to achieve quickness of movement when moving with the ball, the second direction is to increase the speed of movement when overcoming the opponent's resistance, and the third direction is to develop the speed of movement when avoiding possession.

**Table 1**

**"Complex of exercises that develop the quality of speed" at the initial training stage of young basketball players"**

№	Complex of exercises	Order of execution	10 years old	11 years old	12 years old
			The number of repetitions		
1.	Overcome the opponent's resistance by force	The player without the ball resists the forward movement of the player with the ball by grabbing the shoulder	4-5	5-6	7-8
2.	Hitting the ball by changing the direction	The defender resists the attacker's movement by hitting the ball and changing direction	5-6	7-8	9-10

3.	Passing the ball in motion	In two opposite corners of the field, players with the ball move towards the goal by hitting the ball, after throwing the ball into the basket, they resist the movement by hitting the second player with the ball.	4-5	8-9	10-11
4.	Move to the ball while defending the ball	A two-ball player moves by hitting the ball in one hand and competing to take away their balls in the free hand.	5-6	7-8	9-10
5.	Quick movement with the ball	The ball is rolled from the ground by a kick.	4-5	6-7	8-9
6.	Avoid persecution	Against the wall, the ball is thrown at the wall from a distance.	6-7	8-9	10-11
7.	Movement over resistance	The player with the ball is passed around the waist and held by the second player.	5-6	6-7	8-9
8.	Fight for the ball in opposition	Two players without the ball are in a strong conflict with each other to get the ball standing at the designated point	5-6	8-9	10-11

The purpose of the "complex of exercises that develop speed qualities" (Table 1) at the initial preparatory stage of training is to achieve high-speed movement speed in 10-12-year-old basketball players based on the opponent's behavior during training. The indicated indicators are calculated in times and seconds. The table clearly shows the exercises and their size.

It is important to maintain balance in the development of quickness of movement of 10-12-year-old basketball players at the initial training stage. In this case, the use of "a set of coordination exercises that develop balance in sharp movements" (Table 2) is effective in developing quickness of movement.

Table 2

### Complex of coordination exercises for developing balance of young basketball players

№	Exercises	Fulfillment	10	11	12
			Year	yea	yea
			The number of repetitions		
1	Jump and balance on one leg.	He jumps forward on a straight line with one foot in his hand and must land on the line.	8	10	12
2	Balance in resistance.	Straight Line Master Two players stand, the first player performs a high jump exercise, and during the jump landing phase, the second player pushes and resists. The task is for the first player to land on a straight line.	8	10	12

3	Passing the ball while balancing on one leg.	A player standing on one leg passes the ball to his partner standing in the same position and continues in this way.	8	10	12
4	Balance while resisting on one leg.	Two players stand opposite each other on a straight line.	8	10	12
5	Catching the ball in balance after spinning.	3 chips are placed at an intermediate distance on the 3-point zone line, the first player without the ball quickly moves around the chip 4-6 times and throws the ball passed by the second player into the basket.	8	10	12
6	Balance on one leg and resist.	Straight line master Two players stand on one leg holding hands and pull each other with force, the task is to maintain balance on a straight line.	8	10	12
7	Balance on one leg.	Two players oppose each other by hitting the ball on one foot.	8	10	12
8	Balance in sharp movement of opponent's resistance.	He moves from the center of the field by hitting the ball against the opposition of the archer.	8	10	12

Analysis of the results of the physical development of 10-12-year-old basketball players of the initial preparatory stage: according to the results of the pedagogical experiment, no statistical differences were observed in the tests for determining the physical development between the 10-year-old boys of the experimental and control groups. At the end of the pedagogical experiment, a statistical difference was observed in the body length, body weight, chest circumference, breathing frequency, lung capacity tests of 11-12-year-old boys. When studying the level of physical development of 10-year-old boys in experimental and control groups, 5 control tests were used. There were no statistical differences between the level of physical development. At the end of the experiment, the level of reliability between the experimental and control groups [ $P < 0.05$ ] was observed. When examining the level of physical development between 11-year-old boys in the experimental and control groups, it was found that the boys in the experimental group had significant changes compared to those in the control group. Differences between experimental and control groups in terms of physical development at the end of the experiment, statistical differences in body length, body weight, chest circumference, respiratory rate, lung capacity tests observed [ $P < 0.01$ ]. When the level of physical development of 12-year-old boys in the experimental and control groups was studied, significant changes were observed in the experimental group compared to the control group at the end of the experiment compared to the result at the beginning of the experiment. In particular, the differences between the experimental and control groups were found to have statistical differences in body length, body weight, chest circumference, respiratory rate and lung capacity tests [ $P < 0.05$ ]. At the beginning of the pedagogical experiment, there were no statistical differences in physical development tests between 10-year-old girls of the experimental and control groups. At the end of the pedagogical experiment, statistical differences were found in 11-12-year-old girls in terms of body

length, body weight, chest circumference, breathing frequency and lung capacity tests. When studying the level of physical development of 10-year-old girls in the experimental and control groups, no statistical differences were observed in 5 different control tests. At the end of the experiment, the level of reliability between the experimental and control groups [ $P < 0.05$ ] was observed. When the level of physical development of 11-year-old girls in the experimental and control groups was studied, compared to the results at the beginning of the experiment, it was found that at the end of the experiment, there were significant changes in the girls in the experimental group compared to the girls in the control group. In particular, a statistical difference was found between the experimental and control groups in terms of body length, body weight, chest circumference, breathing frequency, lung capacity tests [ $P < 0.01$ ].

In order to develop quickness of movement of young basketball players at the initial preparatory stage of training, leg and arm muscle strength was used in continuous and interval training. As a result, the highest indicator of physical fitness of boys during running from a low start to 20 meters was in 12-year-old boys (decreased from  $4.0 \pm 0.4$  seconds to  $3.1 \pm 0.3$  seconds) an increase of 20.39%. The time of running from a high start to 60 meters in 11-year-old boys (decreased from  $10.3 \pm 0.4$  seconds to  $8.6 \pm 0.6$  seconds) increased to 20.37% ( $R < 0.01$ ).

### CONCLUSION

Thus, as a result of the comparative analysis of the obtained data, we can conclude that at the end of the pedagogical experiment, we can see that at the end of the pedagogical experiment, the basketball players of the experimental group and the gymnasts of the control group achieved better results in performing complex, programmed and acrobatic exercises on the gymnastic beam possible

According to the final results of our study, there was a significant increase in the indicators of physical and technical training of the students of the experimental group. In order to improve the efficiency of training and selection of young children's physical qualities through basketball equipment, it is necessary to increase the physical capabilities of children based on the model of the development of special physical qualities, using exercises aimed at reducing the time of selective reaction to technical actions in accordance with the situation.

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