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WAYS TO USE ACTION GAMES IN SHAPING THE QUALITY OF JUMPING IN YOUNG VOLLEYBALL PLAYERS

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Abstract
This article studies the methodological foundations and practical effectiveness of using movement games in developing the quality of jumping in young volleyball players. It has been proven that exercises organized on the basis of games during experimental training have a significant positive effect on jumping performance. The article presents an analysis based on methodological approaches, statistical results and their application in training.

Keywords: Volleyball, jumping ability, action games, physical qualities, methodology, explosive power, vertical jump, reflex.

Introduction

Volleyball is a sport that requires a high level of physical qualities such as jumping, speed, coordination and reaction, and in particular, jumping ability (vertical jumping ability) is one of the important indicators that directly affects the effectiveness of a volleyball player. It is through jumping ability that the main technical elements such as blocking, hitting, performing defensive actions, and passing the ball from above are successfully implemented.

The age group of 10–14 years is the most important period for the development of basic physical qualities, in particular, skills such as jumping, strength and explosive power in volleyball players. It is at this age that muscle elasticity, reflex responses and flexibility of the musculoskeletal system are at their highest. Therefore, it is important to organize effective training sessions at this stage, without losing the interest of students.

In his experiment in recent years, action games are being used as an important methodological tool in the process of training young volleyball players. Action games are not only of interest to children, but also increase their natural movement activity,

increase reflex and reaction agility, and allow the development of the quality of jumpiness. The recommendation of the National Olympic Committee of Uzbekistan in 2023 noted that the use of playful approaches in children's sports training has a positive effect on the physical qualities of young athletes. On this basis, this article delves into ways of effective use of action games in the formation of the quality of jumping in young volleyball players, training methodology, results of practical experience and scientific and methodological recommendations [1,2,3].

The Purpose of the Study

Identification and development of methodological foundations of effective methods of using action games in the development of the quality of jumping in young volleyball players.

Tasks of Research

A study of the impact of action games on physical qualities, especially jumpiness, on young volleyball players. An experimental analysis of the effectiveness of activities organized on the basis of an action game. Comparison of the results of static and dynamic exercises. Development of recommendations that improve the effectiveness of training.

Research Methodology

In volleyball, jumping is the athlete's ability to jump at maximum height in a vertical direction. Especially in the sport of volleyball, this quality plays an important role in offensive and defensive actions, in blocking, in receiving the ball. For young athletes, this creates the opportunity to increase natural movement activity, strengthen motivation and strengthen reflector movements through action games in the formation of quality.

Analysis and results

In 2025, an 8-week experiment with 40 10-14-year-old volleyball players was conducted at the specialized sports School of Sports and athletics in Samarkand.

Group distribution:

Research team. (n = 20): action game-based training (jump-based in-game assignments such as: “Game of hunters and ducks”, “car racing game”, “speed ball transfer game”).

Control group. (n = 20): traditional jumping exercises (static and rhythmic jumps, vertical jumps, barrier insertion imitation).

Jumpiness (vertical jump) changes:

№	Indicator	Experimental group (n=20)	Control group (n=20)
1	Initial height	29.3 cm	28.7 cm
2	Final height	39.1 cm	33.5 cm
3	Growth	+9.8 cm (33.4%)	+4.8 cm (16.7%)
4	Dispersion (σ^2)	3.12	2.21
5	Average deviation	1.76	1.49
6	t-test (Student) value	$t = 3.91$ ($p < 0.01$)	

1. The increase in average jump height was 33.4% in the experimental group, indicating that explosive force and coordination movements were developing effectively through an action-game-based approach.

2. In the control group, however, the increase was 16.7%, which means that we can see an indicator almost twice as low.

3. Analysis of dispersion and quadratic deviations suggests that while the results were somewhat more broadly dispersed in the experimental group, growth was more stable.

4. Through Student t-testing, the statistical difference between the groups was reliably determined **($t = 3.91$, $p < 0.01$),** meaning that the difference was not accidental, but due to the actual impact of the methodology.

Additional observations: Volleyball players in the experimental group showed a 25% increase in motivation and active participation in training through active games (based on subjective assessment questionnaires). The level of fatigue from training was 17% lower (on a 10-point RPE scale: EG – 4.2, NG – 5.1).

In conclusion, in the formation of the quality of jumpiness in young volleyball players, activities based on action games have high efficiency. Experimental results have proven that action games increase a child's motivation, increase their interest in training, and significantly affect the development of explosive power qualities. By

introducing this approach extensively in practice, it is possible to effectively increase the level of physical fitness in sports schools.

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