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Ways to develop speed in the back zones in 12-13-year-old volleyball players.

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Abstract. This article focuses on the effectiveness of developing the speed of movement in the back zones in 12-13-year-old volleyball players through non-standard relay game exercises conducted in the form of competitions.

Keywords. Children and adolescents Sports School, Research, volleyball, rapidity, movement, sports, achievement, Rear zone, technical and tactical training.

I. Introduction.

In order to achieve high results in modern volleyball competitions, the body of athletes must be prepared for large-scale and very heavy loads. [1] At the same time, in the process of multi-year sports training, the training exercises used by the athlete, regardless of the stage of this training period, should be in accordance with his functional and physical capabilities in terms of load. Otherwise, if a large amount of exercise is given too much, the participants will experience signs of stress. If you continue to use such exercises, not only can you achieve useful sports results, but it is also possible that the participants will develop complications in the body [2].

It is recommended to use physical, technical, and tactical exercises in moderation from the initial stage of training in a particular sport to avoid such unpleasant consequences at a high level of sportsmanship, ie in qualified, older athletes. It is advisable to increase the volume and intensity of training loads from month to month, from year to year, not as a "ladder", but as a "wave". Therefore, the fact that every coach, especially BO`SM coaches, organize their professional and pedagogical activities on a scientific basis is one of the key aspects of the problem of training talented young athletes [3].

The problems of development of technical and tactical elements in sports games by leading specialists of the Republic of Uzbekistan experienced foreign teachers, many scientists have been solved in many scientific and methodological literature. L.R. Hayrapetyans (2006), AAPulatov (2012), Sh.Kh.Isroilov (2014), Z.B.Boltaev (2019), including foreign scientists VMZatsiorskiy (1995), LPMatvyev (1997), VN Sokolov (1999) , David Lavallee, John Kremer (2004), Edmunds J., Ntoumani N (2006), V.Ya.Ignatova, AV Ignatiev A.A.Ignatev (2015), Yu.D.Zheleznyak (2018) conducted scientific research. At the same time, there is insufficient evidence that exercises based on certain movement characteristics and movement games affect children's physical and functional fitness. [4]

The aim of the study: was to study the effectiveness of developing the speed of movement in the back zones in 12-13-year-old volleyball players using non-standard relay game exercises in the form of competitions.

In the process of analyzing the literature, the general and special laws of the organization of in-class and out-of-class sports activities, methods of special functional features were studied. Preliminary and basic pedagogical observations were made to address the objectives of the study. The initial observation was organized in two phases. In the first stage, different speed qualities were identified for students with different physical fitness. In the second phase, the research groups were given a comprehensive selection of learning problems in each lesson, giving students the knowledge they needed to engage independently in physical education classes and classes.

In the course of the research, the content of volleyball training at the BO`SM, which specializes in sports and athletics, located at the Olympic Reserve Training Center, primary education groups provide students with the necessary knowledge, skills, and competencies to improve agility, and other indicators were analyzed.

Based on these studies, the initial preparation groups identified the initial data on the basic speed qualities of the students. The generalization and analysis of the obtained information allowed to formulate the methodology of pedagogical experience more objectively. During the same period, research objectives were identified, methods were selected, and tested.

The issue of progressive formation of sports skills and achievement of high sports results emphasizes the need to organize the process of physical training on a scientific basis. This issue has been repeatedly proven not only from a scientific-theoretical point of view but also from a practical point of view by experts-scientists and trainers. At the same time, not enough attention is paid to the problems of developing physical qualities from the initial stage of preparation. Observations have shown that the issues of shaping physical qualities in accordance with the characteristics of the sport are blindly implemented in the local BO`SMs. There are cases when the exercises aimed at developing these qualities are applied superficially. In addition, most of the exercises used in the training are standard, stereotyped. Exercises do not always take into account the physical and functional capabilities of the participants. In this regard, didactic principles and laws of application of loads are not followed, especially in the development of strength qualities (absolute strength, explosive force, strength endurance). In particular, the use of weights and weight training in strength training exercises either exceeds the norm or does not reach the norm. One of the main reasons for this is that young coaches use superficial exercises that assess the physical and functional fitness of the participants in the competition in this sport, or they are admitted to the club without any competition. The second reason is that developmental loads with or without weights during the initial and subsequent sessions are not comparable to the physical and functional capabilities of the trainee. In other words, downloads and user access are not routinely monitored.

The third reason is that these young trainers exceed the standard of most standard and specialized weight training in their training.

The method of using non-standard, game or relay exercises to develop weights and strength without them is almost non-existent in pedagogical activities, although it is not introduced under control, although it is psycho physiologically known that the power given in the form of game-relay exercise arouses children's emotional feelings, lifts the mood, activates their motivational feelings. As a result, the load of such exercises prevents the development of symptoms of fatigue and stress in the body prematurely. The effect of the downloads is positive. The mentioned scientific-theoretical factors allow choosing a theme of this final qualifying work.

The aim of the study was to study the effect of traditional (standard) and non-traditional (non-standard-game-relay) strength training on the quality of 12-year-old volleyball players divided into control and experimental groups using pedagogical research.

The control group worked on the basis of the training program used in practice.

The following non-standard game-relay strength exercises were used in the experimental group:

1. The arms are bent and written on the floor (ground), the legs are leaning on a gymnastic bench, the body is in a horizontal position with 6 active signals. The one who does the most exercises is the winner.
2. The 6 participants are divided into two teams and one person from each

team is pulled to the equal on the horizontal bar, then the next two people, and so on. The team with the most draws is the winner.

3. (2) In the order of the exercise, only the arms are bent on the bar.
4. Two teams of 3 people line up at a distance of 10 meters from each other. At the signal, the team members take 4 steps forward, lean on their hands, take a horizontal position and bend their arms once, then return to their seats, then take 4 more steps and bend their arms twice. . The more times a participant arrives at the destination, the more times he or she bends his or her hands and writes. The exercise continues until the last participant remains. Whichever team is the only one to continue the exercise to the maximum will be the winner?
5. The game involves two teams. Team 1 participants sit less and carry Team 2 participants on their shoulders. When the alarm goes off, they sit down. The total maximum number of seating is. Then the participants take turns and start practicing the game. Again, the total maximum number of seating is. The team with the highest total number of seats is the winner.
6. This game exercise is similar to Exercise 5. Team 1 participants place Team 2 participants on their shoulders, and when a signal is given, Team 1 participants bend their legs 30 ° from the knees to maintain this position for a maximum period of time. It is the time of the participant who has maintained this position to the maximum. Then the team members change and the exercise is repeated. The team that keeps its legs bent at 30 ° is the winner (the total time of all participants is different).
7. (5) Exercise is performed, only the order of the game - which team will sit the maximum number of times in 30 seconds. The total number of seated participants per 30 seconds is taken into account. The team that sits multiple times in 30 seconds is the winner.
8. Team 1 participants carry Team 2 participants on their shoulders. At the signal, the participants of the 1st team go up and down the gymnastic bench in a row. The number of ascents and descents of each participant is taken into account. Then the participants will be exchanged. The number of ups and downs will be taken into account. The team with the highest total number of ups and downs was declared the winner.
9. Exercises 1-8 are repeated for participants with a 5 kg sand-filled belt around their waists.

Exercises 1-4 mentioned above are performed in the first exercise, exercises 5-6 in the second exercise, and exercises 7-8 in the third exercise.

Exercises 1-4 will be performed in the first session, 5-6 in the second, and 7-8 in the third exercise, with a 5 kg sandbag tied around the waist during the next training week. In this way, the exchange of exercises is carried out by the experimental group for 6 months. 6 months is the duration of the pedagogical experience.

The final effectiveness of this set of exercises is assessed using the following tests:

1. Pulling on a horizontal bar;

2. Folding hands in Bruce;

3. Bending and writing arms in a horizontal position;

4. Sit with a load of 25 kg on your shoulders.

The weight of the trainee is taken into account when performing these tests. The

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experimental group consisted of 6 young volleyball players weighing 40-45 kg. and 147-153 cm in height. The minimum and maximum values of the results, as well as their arithmetic mean are evaluated.

Knowing the qualities of strength from a scientific and theoretical point of view and applying them in the practice of training young volleyball players is one of the key issues of the training process.

The results of the pedagogical study showed that the quality of strength in young volleyball players belonging to the control and experimental groups involved was almost equally weak (Table 1).

Table 1

Individual indicators of the level of development of the quality of strength of young volleyball players.

Control group - 6 Experimental group - 6.

T/R	Inspectors	1	2	3	4
Control group					
1.	Abduraximov E.	4	6	7	5
2.	Xodjayev M.	7	7	8	4
3.	Zaripov G'.	6	7	6	6
4.	Ulugov H.	5	5	7	5
5.	Salimov A.	3	4	6	4
6.	Abidov Sh.	5	6	9	6
		6,0	6,8	9,5	5,0
Experimental group					
1.	Maxkamov S.	4	6	11	4
2.	Muqimov A.	6	7	9	4
3.	Janibekov V.	7	8	10	6
4.	Muxsimov O.	5	6	8	5
5.	Aripov A.	5	4	7	4
6.	Achilov E.	6	6	7	6
		5,5	6,2	8,7	4,5

Note:

1. - Pulling on a horizontal bar;

2. - Bending and writing in Bruce;

3. - Bending and writing of horizontal lying control arms;

4. - Sit with a load of 25 kg to the shoulders.

For example, in the control group, the results of shooting on a horizontal bar were the minimum and maximum on March 3-7. Bruce arm bending-writing 4-7 times, horizontal working arm bending-writing 6-9 times, 25 kg. Sitting with the load on the shoulder was 4-6 times.

In the experimental group, the results were almost the same. In particular, the mentioned indicators are 4-7, respectively; 4-8; It was around 7-11 and 4-6 times.

It can be seen that despite the small number of participants in both groups, the spread of all the indicators obtained is relatively large. This situation shows that the quality of strength of self-employed people, on the one hand, shows their weakness, and on the other hand, they are far from the same training in terms of strength. For comparison, according to L.S. Dvorkin's results, weightlifters of the same age should have a barbell pull more than 7 times, while R.A. Roman's results should be more than 10 times. In Brussels, handwriting should be up to 16 times.

Table 2

Development of strength quality in young volleyball players

level (X).

Tests	Controlgroup	Experimentalgroup
Turnstileshooting	6,0	5,5
Twisting hands in brushwood-writing	6,8	6,2

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Bending-writing hands in a horizontal lying position	9,5	8,7
25 kg put the load on the shoulder sitting-standing	5,0	4,5

If we look at the arithmetic mean of the individual indicators obtained in the course of our study, we can see that the quality of power is weaker in practitioners.

The results of the study showed that before the start of the experiment on the horizontal bar was 6.4 times. In Brussels, the arm flexion and extension exercise was 7.4 times and the horizontal arm flexion exercise was 8.6 times. After 6 months of traditional training, the pull-ups on the horizontal bar increased by 7.2 times, the bending of the arms on the barbell by 8.6 times, and the bending of the arms in the horizontal position by 10.2 times. Apparently, the strength of the muscles that bend and stretch the arms has only increased dramatically in half a year.

Table 3

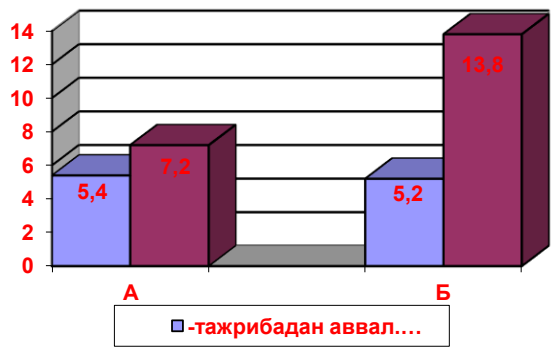
Changes in hand strength in control and experimental groups under the influence of various meaningful exercises

T/R	Tests	Guruh	Beforeexperience	After experience
1.	Turnstile shooting	CG	6,4	7,2
		EG	6,2	12,6
2.	Twisting hands in brushwood-writing	CG	7,4	8,6
		EG	7,8	15,8
3.	Bending-writing hands in a horizontal position	CG	8,6	10,2
		EG	9,0	18,2

It is well-known that volleyball is very important for children, especially for stretching the arm muscles. In this regard, the test exercises performed on the bruise and in the horizontal position are the objective criteria for assessing the strength of these muscles. In the control group, these test scores focused on poorly developed muscle strength. Test results performed on the beam and in the horizontal position over a period of 6 months showed an increase of only 1.2 and 1.6 times, respectively, indicating that this type of strength training exercise was rarely used in traditional training.

The playful non-standard strength exercises used in the experimental group prove to be very effective. Thus, the results obtained before the experiment in this group were almost no different from those in the control group (see Table 9). However, after 6 months of experimentation, the pull-ups on the horizontal bar increased by 6.4 times, the bending of the arms on the barbell increased by 8.0 times, and the bending of the arms in the horizontal position increased by 9.2 times. This demonstrates the effectiveness of the experimental exercises used. The “25 kg sit-up” test, which measures the strength of the leg muscles, showed that the results of non-standard strength exercises used in the form of games were effective (diagram).

Increased leg strength in 6-month training sessions in control and experimental groups



In particular, if the leg strength in the control group was 15 times higher than in the sit-down test by putting 5,4 kg of load on the shoulder before the experiment, then in the experiment group this indicator was almost indistinguishable, even the trick was less (5,2 times).

After 6 months of training, this indicator increased in the control group up to 7.2 times, in the experimental group up to 13.8 times. Consequently, the matchless exercises non-strength, which were used in the experimental group for 6 months, demonstrated their effectiveness.

The results obtained and their comparative analysis showed that based on the scientific and theoretical aspects (without weights) and found that matchless non-standard exercises performed with weights are extremely effective in developing arm-leg strength. Such classes, conducted for 6 months, significantly increased the level of curiosity and activity in children who were involved in the experience.

The results of our 6-month pedagogical experiment on the development of strength qualities in young volleyball players showed that non-standard game-oriented exercises form these qualities more effectively than traditional standard exercises. If the arm and leg muscles in the control and experimental groups were almost indistinguishable before the start of the study, after the end of the pedagogical study it was observed that these qualities were relatively progressive in young volleyball players engaged in non-standard, game exercises.

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