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Paper Authors

Prof.Z.B.Boltayev, dots.A.A. Ummatov, K.M.Mirzayev



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The effectiveness of teaching speed training to young volleyball players

Prof.Z.B.Boltayev, dots.A.A. Ummatov, K.M.Mirzayev

Abstract. This article focuses on the effectiveness of developing the speed of 12-13-year-old volleyball players as a consequence of running 30 and 60 meters.

Keywords. Volleyball, sports, occupation, physical quality, rapidity, exercise, development, preparation.

I. Introduction.

We know that the physical qualities of a person are formed since birth. However, the extent to which these qualities are formed in his childhood, his ability to master simple or complex movements, depends not only on the environment in which he grows up but also on the means by which a child develops certain qualities. [1]

At the same time, the role of each physical quality in the performance of this action will vary depending on the type, direction, also purpose of the action. However, the integral importance of these physical qualities in different occupations or sports has its own share. In any case, it is often the case that researchers believe that the predominance of certain physical qualities in all movement activities is immediately apparent.

Achieving high results in contemporary sports practice relies on the capacity of the athlete to maintain high quality and productive performance over a long time. [2]

The duration of competitions in various sports is determined by the rules of international competitions. The longer an athlete is able to maintain or increase his or her performance in terms of quality and efficiency during these competitions, the more likely he or she is to “laugh” at success. In other words, the degree to which the quality and efficiency of workability are maintained for a greater or lesser period of time is determined by how well the types of general and specific endurance qualities have developed.

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), A.A.Pulatov (2012), Sh.X.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.

The aim of research: To study the effectiveness of speed development in 12-13-year-old volleyball players.

Speed attributes are the ability to exhibit high or very high voltages while maintaining the amplitude of motion in a short period of time. [3] Speed is seen as a special ability in determining speed, and they are closely related. In the experiment, a 30- to 60-meter run test was used to determine the qualities of speed. The results obtained in the experimental and control groups in the 30.60-meter run were as follows.

During volleyball training, the maximum speed training is used in a relatively small amount and lasts for 3-7 minutes.

Exercises for elementary students last about 5-13 seconds. Exercises are performed at a high speed, it is recommended to rest after a career.

In order to achieve positive results in the training of agility, various instantaneous signals, short distances, and other speed-improving exercises are used. At the same time, the cyclic load lasts for 10 seconds, and this load reaches 10 seconds when the anaerobic energy sources in the body, mainly

creatine phosphate glycogen, work at high speed in the body.

During the study, the load norms were set for teaching speed exercises to the primary group of students (Table 1).

Repetition of speed exercises and rest

№	Yugurish masofalari	Repetition and rest									
		1	rest	2	rest	3	rest	4	rest	5	Rest s/d
1	Running 30 meters low start (class 1-2) 30	1	25	2	30	3	40	-	-	-	-
2	Running 30 meters low start (class 3-4) 30	1	30	2	35	3	40	4	50	-	-
3	Running from a low start of 60 meters (1-2 classes) 26	1	1-3	2	2-3	3	2-3	-	-	-	-
4	Running from a low start of 60 meters (grades 3-4) 26	1	1-4	2	2-4	3	2-5	4	3-5	-	-

In the 30 m low start, each exercise was followed by exercise technique, results, and external signs of fatigue, and the rest between repetitions were prolonged with each

repetition. When 11-12-year-old students moved on to the fourth after the third repetition, they felt severe shortness of breath due to external signs of fatigue, technical errors occurred, and the result decreased, while 12-13-year-old students, in this case, had a fourth. was observed when the runner moved to the fifth. Thus, 3 repetitions for 11–12-year-old students and 4 repetitions for 12–13-year-old students were identified as the optimal criteria for developing speed qualities. Excessive exercise makes the body tired, and continuing to do so leads to the development of speed endurance qualities.

Performance of speed exercises in students aged 11-12 years 5-13 seconds, repeated 2-3 times, rest in the interval between repetitions 20-40 seconds, duration of exercises in students 3-4 grades 6-10 seconds, 4 times repeated, resting in the repetition interval 30-50 seconds.

In choosing the exercises, we used exercises that were not technically complicated, that could fully focus the students' attention on the speed of the exercise (running at a maximum speed of 30-60 meters), as well as sudden signals.

For 12–13-year-old students, running 60 distances was standardized to develop speed-endurance qualities, with the number of repetitions set to 2-3, and the rest set to 1.5-3.0 minutes between repetitions. After the 3rd performance, the respiratory rate changed, there was shortness of breath, left and right deviations were felt in the elements of the technique, and on this basis, norm was set.

Indicators of the development of speed qualities of primary school students (running from a low start to 30.60 meters, seconds) before and after the experiment was recorded in Tables 2-3. Table 2

3	Running 30 m distance (seconds)	2		1	
		G	B	G	B
B		18	12	18	12
14	13,2±0,2	13,1±0,1	13,2±0,1	7,201±0,10	7,101±0,06
6,602±0,27	13,3±0,3	13,2±0,1	13,2±0,1	7,103±0,14	7,021±0,10
6,401±0,30	0,71	0,71	0,71	0,59	0,80
0,5	>0,1	>0,1	>0,1	<0,05	<0,05
<0,05	16	14	14	16	14
15	13,2±0,32	13,1±0,15	13,1±0,15	7,202±0,32	6,901±0,15
6,002±0,11	13,1±0,15	13,8±0,15	13,8±0,15	7,010±0,15	6,803±0,15
5,803±0,13	0,56	0,72	0,72	0,56	0,5
1,18	>0,1	>0,1	>0,1	<0,05	<0,05

No	Tests	Gender	11 years old	12 years old

4	Running 60 m distance (seconds)		G	B	12	14	12	12,1±0,1	12,2±0,2	12,3±0,14	12,2±0,10	6,701±0,08	0,83	6,502±1,14	>0,1	0,18	13	15	12,1±0,15	13	12,1±0,3	6,403±0,11	0,83	6,301±0,10	>0,1	0,71

(Table 3)

Post-experimental speed training of students of the primary volleyball training group of coaches G.Maksumov and A.Khusenov of the Olympic Reserve Center (running from a low start of 30.60 meters, seconds)

№	Tests	Gender		11 years old				12 years old					
		G	B	n	Exprimen t group ±	Control group ±	t	P	n	Exprimen t group ±	Control group ±	t	P
1.	Running 30 m distance (seconds)	G	B	12	7,0±0,08	5,7±0,12	10,07	<0,05	14	6,6±0,24	5,3±0,20	4,9	<0,05
3.	Running 30 m distance (seconds)	G	B	12	6,6±0,32	6,2±0,00	0	>0,05	15	6,5±0,15	5,8±0,15	3,5	<0,05
4.	Running 60 m distance (seconds)	G	B	14	11,4±0,2	5,7±0,2	4,09	>0,001	15	11,6±0,4	11,3±0,2	4,9	>0,001

The ability (time) of primary school students to perform speed exercises decreased from 0.2 seconds to 0.6 seconds per year.

While the difference in boys' results in the 30-meter sprint was 0.2 seconds between the ages of 11 and 12, the difference between grades II-III increased by 0.3 seconds or 1 percent. In girls, it is 0.1; 0.3; Equal to 0.5 seconds. These figures show that the results of boys and girls in performing speed exercises among primary school students do not differ much from each other.

According to the analysis of the literature, the average performance of 11-year-old boys and girls in the 30-meter run was 7.6–8.7 seconds, 12-year-olds 6.9–7.1 seconds, 13-year-olds 6.6–8. 6.9 seconds, according to our data, 7.1–7.2; 6.9–7.2; 6.6–6.7; 6.0–6.4 seconds. There is no difference between the quality of speed in the experimental BOSM elementary school students.

When analyzing the results of boys running from a low start of 60 meters, the control group was higher for 0.1 seconds (0.8 percent) in 11-12-year-olds, which is not statistically significant (t = 0, 71, R> 0.1), in 12–13-year-old students, the experimental group was high for 0.1 s (0.8 percent) but had no statistical difference (t = 0.71, R > 0.1). The results of students aged 12–13 years were higher in the experimental group for 0.2 s (1.9%) and did not differ statistically (t = 0.83, R> 0.1). The table shows that there is no difference in the initial results of the students.

Post-experimental results: If there was no statistical difference (R> 0.05) before the experiment in the results of the 30-meter run among students of I-IV control and experimental classes, 11-12-year-olds after the experiment a statistical difference was observed between boys and girls and among 13-year-old boys. Although the results were higher among the control and experimental groups of 12–13-year-old boys and girls, no

statistical difference was observed. This is due to the small size of the ball.

When analyzing the boys' post-experimental results in the 60-meter low start, they improved by 0.7 seconds (6.9 percent) in the I – II class experimental groups and differed statistically ($t = 5.00$, $R > 0.001$). In the control groups, the improvement was 0.1 seconds (0.86 percent) and did not differ statistically. 8 percent control group is high, which is not statistically significant ($t = 0.45$, $R > 0.1$).

In the experimental groups of 12–13-year-old students, an improvement of 0.9 s (9 percent) was achieved, with a statistically higher result in the boys' performance in the 60-meter low-start run, 11 In the 12-year-old, the control group was higher by 0.1 s (0.8 percent), which is not statistically significant ($t = 4.09$, $R > 0.001$). In the control groups, there was a statistical difference in annual growth of 0.6 seconds (5.6 percent) when analyzing the results of boys running from a low start of 60 meters, compared to 0.1 seconds in 11-12-year-olds (0.8 percent) control group is high, which is not statistically significant ($t = 2$, 72 $R > 0.01$).

Analysis of the results of the Rapid-Strength Qualities shows that there is a higher difference in older children for physiological reasons. It is at this age that the tendency to develop agility develops, and aging occurs at different times in different children. These laws affect the physical fitness of students.

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