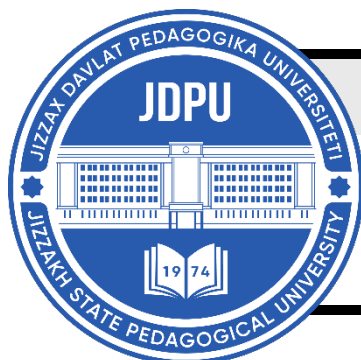


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METHODOLOGICAL JOURNAL****MENTAL ENLIGHTENMENT SCIENTIFIC –  
METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**DEVELOPMENT OF QUICK-STRENGTH QUALITIES OF YOUNG  
HANDBALL PLAYERS WITH THE HELP OF SPECIAL PHYSICAL EXERCISES****Maxbuba Sheramat qizi Jumaniyozova***basic doctoral student**Uzbekistan State University of Physical Education and Sports**Chirchik, Uzbekistan**E-mail: [maxbubajumaniyozova94@gmail.com](mailto:maxbubajumaniyozova94@gmail.com)***ABOUT ARTICLE**

**Key words:** young handball players, quickness, quickness-power, physical qualities, technique, cues, distance, running, result, method and methods.

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**Abstract:** This article aims to develop the physical qualities of young handball players with the help of special physical exercises. Handball is a good tool for general physical training. Handball is a necessary sport for a student of any specialty due to the development of physical qualities, as well as volitional feelings and tactical thinking by changing the direction, different types of jumping, and moving at maximum speed. ranked among This article provides information on ways to develop quickness and quick-power qualities of 13-14-year-old handball players. In addition, the quickness and quick-power qualities of young handball players were studied and analyzed using various tests, and the results were reported.

**INTRODUCTION**

It is necessary that mass participation in physical education and sports becomes a daily need of young people, at the same time it is the main factor in the comprehensive development of young people, in forming a healthy lifestyle, in helping them to become full-fledged human beings, and in getting rid of lawlessness and other negative vices.[10,12] Serves as The basis of the game of handball is running, jumping, passing the ball, throwing natural movements that help the players to develop harmoniously in all aspects. Loads have a positive effect on the development of all functional systems in the body. As a result of the training, as well as in the

competitions, the mental activity of the participants improves, the qualities such as speed reaction, imagination, creative thinking, speed and initiative develop.[15]

The game of handball can serve as a good tool for general physical training. Due to the development of physical qualities, at the same time, willpower and tactical thinking, handball is a necessary sport for an athlete of any specialty. ranked among[1,2]

Today, handball is widely used in schools, lyceums, colleges and universities. Handball competitions are an important means of regularly involving young people in physical training, and one of the main factors in improving sports skills.

**The purpose of the study:** Development of quick-strength qualities of young handball players using special physical exercises.

**Research tasks:**

1. Scientific research on the development of quickness and strength qualities of young handball players.
2. Scientific research on improving the development of sports skills during annual training
3. Investigating the growth of quickness and strength qualities in young handball players during training.

**RESULTS AND DISCUSSIONS**

We know that the main movements of handball players on the court are: walking, running, walking with the ball, running with the ball, jumping, hitting, tricking the ball, passing the ball, include kicks from the sideline, free kicks, corner kicks, feints, goal kicks, tackles for the ball, and many more. It can be seen that handball experts have studied the above-mentioned actions of handball players in their research and developed the necessary methods and techniques for them.

According to scientific research, 13-14-year-old handball players have reached the level of a highly qualified athlete. Later, its qualities will change significantly. One of the reasons for this process is the cessation of the formation of nerve coordination connections and nervous tissue apparatus. On the other hand, there is the effect of methodological factors. This is due to insufficient focus on quickness and strength qualities during training, and the fact that the methods and techniques used to improve training efficiency are simple and uniform.

Scientists say that young handball players perform more methods in the specified time than skilled handball players. As can be seen in Table 1, the difference between the indicators is very large. But in modern handball, there cannot be such a big difference.

**Performance indicators of handball players of different ages  
(Statistics of Khorezm team in one game)**

№	Action name	Number of behaviors in the game		Distances in the game	
		Masters of sports	Young people	Masters of sports	Young people
1	Sprints (speed)	244	380	3400	5018
2	Runs that end with a quick stop	144	401	2045	4450
3	Running by changing the direction	115	228	2434	4292
4	Carrying the ball	106	185	1436	2160
5	Punches with hands	319	473	5886	7718
9	Bringing the ball into play from the 9-meter zone	12	24	337	745
10	Catching the ball	141	261		
11	Pushes	31	153		
12	Conflicts	101	67		
13	Throwing balls	18	14		
14	Jumps	66	32		
15	Falls	32	75		

Our pedagogical observation process was carried out in the pupils of the Urganch Olympic and Paralympic Sports Training Center. The period of pedagogical observation was conducted from November 2023 to April 2024.

Effective formation of technical skills at the initial stage of training in sports techniques is directly related to the level of development of physical qualities. That is why the gradual development of general and special physical qualities in young athletes who have just started to participate in sports circles is one of the important conditions for the preparation of qualified sports reserves. In this regard, it is worth noting that the effective development of physical qualities is determined by the content and essence of selected exercises and other means (active games, relays).

In accordance with the purpose of this study, the level of development of quickness and agility qualities was studied in 13-14-year old children, 20 of whom expressed a desire to participate in the handball club, 20 of them were research, 20 were control groups, and the level of quickness-strength qualities was determined using the following tests: 15 1 meter run, 30 meter run, long jump, high jump, long jump, triple jump, high jump.

Table 2

**State of development of speed and speed-power qualities in 13-14-year old children.**

No	Examinees	30 m sprint (s)	4x10m shuttle run (s)	1600 m run (s)
1.	Boltaev Murod	6,1	10,4	9,1
2.	Ernafasov Og'obek	6,1	10,8	9,3
3.	Salayev Islom	6,0	10,6	9,3
4.	Karimov Asadbek	5,9	12,2	9,
5.	Egamberdiyev Shoxrux	6,1	10,9	9,5
6.	Salayev Eldor	6,3	12,3	9,6
7.	Norimonov Eldor	6,2	11,4	9,4
8.	Sadiqov Laziz	5,9	10,9	9,3
9.	Abdullaev G'ofur	5,8	10,8	9,1
10.	O'rinov Siroj	6,0	10,9	9,1
11.	Kamoladdinov Kamol	6,3	11,6	9,4
12.	Masharipov Aziz	5,2	12,7	8,0
13.	Xudayberganov Hasan	6,4	10,2	9,0
14.	Nazarov Dilshod	6,4	9,2	10,2
15.	Nurmanov Jalil	6,4	9,2	9,9
16.	Qodirov Anvar	5,6	10,0	10,2
17.	Iskandarov Furqat	5,8	9,3	9,5
18.	Olimov Izzat	5,3	10,0	10,5
19.	Imomov Nurbek	5,2	9,1	9,4
20.	Azamatov Obod	5,4	13,0	9,6
	<b>Min-Max</b>	5,2-6,4	9,1-12,7	8,0-10,5
	<b>The difference</b>	1,2	3,6	2,5
	<b><math>\bar{X}</math></b>	5,9	10,2	9,4

As can be seen from the table, the 30 m running tests conducted on the tested children showed that each child has a unique quality of speed. The difference between the best performance (5.2 s) and the highest performance (6.4 s) was 1.2 seconds. This difference indicates that the tested children have almost the same ability in terms of physical fitness. The average running time for this distance was 5.9 seconds.

The difference between the indicators was quite large because the tests reflecting the qualities of special quickness and special quickness (4x10 m shuttle run) were more complicated in terms of execution in the opposite direction. The smallest recorded value (that is, a short time) was 9.1 seconds, and the largest value (that is, a long time) was equal to 12.7 seconds. So, the difference between these indicators is 3.6 seconds.

It turned out that the average indicator representing the above-mentioned qualities is equal to 10.2 seconds.

Children's general endurance was evaluated using the 1600 m running test. In this test, the lowest score (best speed) was 8.0 seconds, and the highest score (worst speed) was 10.5 seconds. The difference in the middle was equal to 2.5 seconds, which indicated that the examined children belong to the same category in terms of preparation.

The average speed recorded for this distance running test was 9.4 seconds, which means that the endurance of children of this age and who have just started playing sports is defined by this average result.

It is worth noting that when the indicators of each test were analyzed separately, another important evidence was revealed. Although some children showed a short time in running a straight distance (30 m), these children showed a short time in running in the opposite direction (4x10 m) or a long distance in a straight direction. showed significantly different results in distance running. For example, O.Akhmedov showed a time of 5.4 seconds in the 30 m run, and 13.0 seconds in the 4x10 m shuttle run. At the same time, this boy himself had a result of 9.6 seconds in running for 1600 m.

Such situations were observed in a number of other examinees (see Table 2). This dramatic difference, or, in other words, dramatically changing ability, is likely to be related to the complexity of the running test exercises and the length of the distance.

The difference between the smallest and largest indicators of the results of the test exercises is also visible, which confirms the above-mentioned possibility.

Based on these results, another important situation is observed. In particular, if the difference between the results shown by the tested children for running 30 m leads to the conclusion that they belong to the same category in terms of training, then according to a complex test exercise (4x10 m shuttle run), such an opinion is not possible.

Because the difference recorded in this test increased by 3.6 seconds. So, making children run in the opposite direction for a short distance indicates that they have a special ability. The same situation is observed in the 3rd test exercise.

The observed results and the scientific probabilities or scientific hypotheses made based on these results indicate that the procedure for admitting children to the handball club was not carried out on the basis of an official selection. If this event had been organized on the basis of standard test-exercises of selection and selection, the difference between the obtained indicators would have been relatively small.

Speed and the effectiveness of games in its development were studied based on the results of a pedagogical study conducted in a group of 10 people who had just started playing handball - research and control groups.

The obtained results show that before the pedagogical research, the qualities of speed did not differ from each other in both the control group and the research group. For example, the time of running 30 m was equal to  $5.8 \pm 0.5$  seconds in the children of the control group, while this indicator was  $6.0 \pm 0.3$  seconds in the children of the research group.

Table 3

**The level of the quality of promptness before and after the pedagogical research.  
(n=10)**

№	Test exercises	Groups	
		Control	Research
1.	30 m sprint (s)	$5,8 \pm 0,5$	$6,0 \pm 0,3$
		$5,6 \pm 0,4$	$5,2 \pm 0,4$
2.	4x10m shuttle run (s)	$10,4 \pm 0,7$	$11,2 \pm 0,5$
		$10,1 \pm 0,9$	$9,8 \pm 0,4$

After the end of the pedagogical research, the level of quickness qualities of the children in both groups was different and ended with a sharp difference from each other. This improved from 5.8 seconds to just 5.6 seconds in the control group, while the study group improved from 6.0 seconds to 5.2 seconds. In the first group, the difference was 0.2 seconds, in the second group it was 0.8 seconds.

The 4x10m shuttle run time changed from 10.4 seconds to 10.1 seconds in the control group, and from 11.2 seconds to 9.8 seconds in the study group. In other words, the quality of speed evaluated by this test improved by 1.4 seconds.

The mentioned results indicate that the "power" of influence on the development of the quality of quickness of the simple (traditional) exercises used in the pedagogical research period of the control group is not much.

Table 4

**Indicators of speed-strength changes of control and research group handball players at the beginning, middle and end of the experiment.**

Indicators	Control group n=20				Research group n=20			
	In the beginning	In the middle	At the end	Growth	In the beginning	In the middle	At the end	Growth
Running speed from the start to 30 m (m\s)	$5,79 \pm 0,257$	$5,82 \pm 0,242$	$5,88 \pm 0,236$	$0,09 \pm 1,55\%$	$5,99 \pm 0,279$	$5,98 \pm 0,332$	$6,13 \pm 0,264$	$0,14 \pm 2,34\%$
Long jump (cm)	$220 \pm 9,7$	$227 \pm 9,0$	$229 \pm 10,6$	$9 \pm 1,05\%$	$221 \pm 12,2$	$227 \pm 11,5$	$233 \pm 11,0$	$12 \pm 5,26\%$

High jump (cm)	48,2 ± 2,46	54,7 ±3,05	56,9 ±4,06	8,7 ±3,2%	48,5 ±5,6	51,3 ±0,5	59,1 ±5,9	11,4±2 1,75%
Triple jump	6,35 ±13,4	6,44 ±21,2	7,05 ±18,6	1,70 ±0,35%	6,35 ±33,3	6,40 ±35,4	7,93 ±32,3	1,58 ± 2,77%

## CONCLUSION

Development of handball on the basis of modern demands requires high physical fitness of handball players, one of the most important of which is quickness and quick-strength qualities. The age of young teenagers is considered the most important period in the education of these qualities. According to the analysis of literature sources, young handball players have a certain degree of lower readiness of speed and speed-power qualities compared to other sports. The period of adolescents aged 13-14 is considered one of the most important stages in the education of these qualities. Changing the speed-strength qualities, volume, tools and methods during training shows the positive results of training processes at a certain level.

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