



**ANALYSIS OF THE PHYSICAL DEVELOPMENT AND TOTAL
PERFORMANCE OF MIDDLE-DISTANCE RUNNERS IN THE
TRAINING GROUP**

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Abstract

In this article, the dynamics of the functional development and total indicators of the athletes of the middle-distance running control and research group of the training group are determined. Attention has been paid to highlighting the results obtained on the basis of special tests obtained as a result of the conducted research. An analysis of the differences in total indicators of physical development in the control and research groups at the end of the study was given and conclusions were drawn at the end of the work.

Keywords: Training group, runners, physical development, functional index, total indicators, control group, experimental group, comparative analysis, dynamics of physical training, annual training.

Relevance:

Today, the increasing competition in athletics in the world sports community, along with the daily increase in the results shown in competitions, requires the improvement of the athlete training system. The system of training highly qualified athletes specializing in middle-distance running in athletics requires planning the training processes in accordance with the requirements of the time, optimizing the loads at different stages of training. At the same time, today, in the training groups of leading countries of the world and in our country, attention is paid to the functional development and total performance of athletes in the training of middle-distance runners. One of the main reasons for this is the high influence of the functional and total performance of athletes on achieving high sports results. [5; 7; 11].



Research objective: To determine the total performance of the control and experimental middle-distance runners in the training group before and after the study.

Research task :

- to strengthen the health of middle-distance runners in the training group, to increase the functional capabilities of their body.
- to increase the functional and total performance of middle-distance runners in the training group based on special exercises.

Results of the study and its discussion:

The effectiveness of mastering all types of loads used at different stages and periods of long-term training, the formation of physical, mental and technical-tactical capabilities, and the growth of sports results directly depend on the level of functional training [2; 3; 8;].

After constant monitoring of the functional state of athletes in the experimental and control groups of middle-distance runners during training and competitions, we obtained certain results. The study of various organs and systems of the body based on complex tests during the examination made it possible to obtain the necessary information. At the end of the study, the level of physical development of the subjects of the experimental and control groups was analyzed. According to this, body length, weight, chest circumference at rest, during inhalation and exhalation were analyzed (see Table 1-2).

Table 1 At the beginning of the study, total indicators of physical development in middle-distance runners of the experimental and control groups, (n=40)

Experience group, (n=20)

Indicators	Body length (cm)	Weight (kg)	Body index n=20	Chest cage circumference (cm)		
				calm in case (cm)	breath when (cm)	breath when removed (cm)
<i>X</i>	17 8, 1	6 9, 2	21.8	8 0.75	8 5, 1	7 6, 9
<i>s</i>	1, 39	4.5	1.4	2.9	3.7	2.75
<i>V, %</i>	14.2	16.8	15.7	14.3	17.4	13.3

N torture group, (n=20)

Indicators	Body length (cm)	Weight (kg)	Body index n=20	Chest cage circumference (cm)		
				calm in case (cm)	breath when (cm)	breath when removed (cm)
$\bar{X}$	178.7	67.1	21.0	81.0	84.2	77.5
s	2.2	2.3	0.3	1.3	1.8	2.2
V, %	15.9	15.7	14.8	14.7	16.1	14.2

Table 1 At the end of the study, the total indicators of physical development of middle-distance runners of the experimental and control groups (n=40)

Experience group, (n=20)

Indicators	Body length (cm)	Weight (kg)	Body index n=20	Chest cage circumference (cm)		
				calm in case (cm)	breath when (cm)	breath when removed (cm)
$\bar{X}$	180,8	71,4	19,8	82.4	86,7	78,4
s	0,7	2.1	2.0	1.5	2.2	1.3
V, %	11.2	10.7	10.2	9.9	12.6	9.7

N torture group, (n=20)

Indicators	Body length (cm)	Weight (kg)	Body index n=20	Chest cage circumference (cm)		
				calm in case (cm)	breath when (cm)	breath when removed (cm)
$\bar{X}$	179,1	68.2	21.5	81,7	85,1	77,9
s	1.9	2.1	1.1	1.2	1.6	1.9
V, %	14.7	13.4	13.7	11.7	14.7	13.7

To the table basically experience group testers experience at the beginning tall length average 178.1 ± 1.39 cm. the organize reached if research 180.8 ± 0.7 cm at the end. the organize did This indicator result control in the group experience 178.7 ± 2.02 cm at the beginning, from research after and 179.1 ± 1.9 cm equal to the fact that was determined.



International Conference on Economics, Finance, Banking and Management

Hosted online from Paris, France

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24th December, 2024

Body weight experience in the group from research before 69.2 ± 3.7 kg, from the study then to 71.4 ± 2.1 kg equal to it has been. Control in the group heavy weight research at the beginning 67.1 ± 2.3 kg, from the study then 68.2 ± 2.1 kg ha equal to the fact that note done Body weight index according to passed in research experience group of the examinees indicator research $21, 8 \pm 1.4$ studies at the beginning at the end and 19.8 ± 2.0 body weight index equality observed . This control according to control group in testers passed body weight in the study index research 21.0 ± 0.3 ha at the beginning, research at the end and equal to 21.5 ± 1.1 the fact that was determined. The next one breast cage width according to conducted in research experience group testers average equal to in case, chest cage width research at the beginning, 80.75 ± 2.9 cm, research at the end and 82.4 ± 1.5 ha equal to it has been.

Breath when this indicator research at the beginning 85.1 ± 3.0 cm., research 86.7 ± 2.2 cm at the end organize did breath when it comes out while research 76.9 ± 2.7 cm at the beginning , from research then 78.4 ± 1.3 cm. the organize did Control in the group while breast cage width calm in case research 81.0 ± 1.3 cm at the beginning , from research then 81.7 ± 1.2 cm to equal to equal to has been if so , breath when from research before 84.2 ± 1.8 cm from research then 85.1 ± 1.6 cm organize did breath when it comes out while this indicator research 77.5 ± 2.2 cm at the beginning , research at the end and 77.9 ± 1.9 cm to equal to the fact that was determined. So experience and control group testers physical development according to conducted research results this both in the group significant differences that there is showed. Received pedagogical experience the head and last from the results apparently standing experience group in testers positive growth dynamics observed. From this conclusion what we do maybe from us applied methodology own the effect gave

To study the experience of preparing middle-distance runners for competitions in Samarkand city sports schools , track and field, on the example of athletes in Samarkand city sports schools in this direction. The results of current researches and pedagogical experience made it possible to note the following scientific conclusions for the first time:



- the volume of non-specialized loads specified in the main training program for middle-distance running athletes was reduced due to training in the training plan, which made it possible to develop the physical and functional fitness of these athletes and sports results in a progressive direction;
- as a result of the training group developing the technology for preparing middle-distance runners for competitions based on various jumping exercises, the running technique is improved, while breathing and running rhythm are formed, hypoxic muscles that restore the body's work activity increase.

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