



## EVALUATION OF THE EFFECTIVENESS OF THE EXPERIMENTAL PROGRAM BASED ON THE ANALYSIS OF THE DYNAMICS OF CHANGES IN PHYSICAL FITNESS INDICATORS

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**Relevance:** In the world community, special attention is paid to the development of national sports. Currently, belt wrestling, which is widespread in many countries of the world, is one of the effective means of comprehensive physical development of all segments of the population. In world practice, researchers conduct many studies aimed at improving their physical fitness and improving the educational and training process by effectively organizing a training system for wrestlers engaged in belt wrestling. The high social importance of belt wrestling poses an urgent task for scientists and practitioners to select talented athletes participating in competitions on the international stage, to develop methods for the development of physical and technical training through training tools.

**The degree of study of the problem:** The assessment of the level of effectiveness of the developed experimental training program for belt wrestlers was carried out on the basis of the dynamics of changes in indicators in pedagogical tests demonstrating the level of development of general and special physical fitness, as well as by the direction and nature of changes in sports and technical indicators among athletes of the control and experimental groups. During the main pedagogical experiment, which lasted 9 months. Pedagogical testing of physical qualities was carried out twice at the beginning and at the end of the experiment, Given that strength qualities are in demand primarily in belt wrestling. We tested the dynamometry of the hand test, at the beginning and at the end of the experiment, as well as speed qualities were evaluated by the test running at 30 m., 60 m., and endurance running at 2000m. Speed and strength abilities were assessed by jumping from a place.

The purpose of the study is to develop proposals and recommendations for the development of physical, functional and technical preparedness of athletes in belt wrestling of various weight categories based on the integration of training tools.

Organization and research methods: Analysis of the test results of the control group at the initial and final stages of the experiment allowed us to establish an increase in physical fitness indicators for the following tests; so in the "long jump from a place" test for speed and strength qualities showed an increase in the group of wrestlers on lightweight belts by 2.6%, in middleweights by 2.5% and in heavyweights by 1.7%. The increase in strength qualities according to the DC (dynamometry) test of the hand also revealed a significant increase – in lightweights by 5.6%, in middleweights by 4.7% and the largest increase in strength qualities was established for heavyweights - amounting to 6.01%. The development of speed qualities was assessed by running at 30m and 60m. For lightweights, the increase was 2.5% in the 30 m run, for middleweights by 2.8% and for heavyweights, the lowest increase in the quality of speed was only 1.04%. In the 60m run, the lightweight KG had a 4.1% increase in speed qualities, the middleweights – 3.2% and the heavyweights - 2.5%. According to this indicator,

lightweights are in the lead, and the laggards are heavyweights. An indicator of the quality of endurance is long-distance running. So in the 2000m run at the second stage of the experiment, the increase was 3.1% for lightweights, 2.8% for middleweights and 2.8% for heavyweights.

Assessment of the physical fitness of belt wrestlers, taking into account the weight category of the experimental group

Weight category - EG	Long jump from a place	DC brushes	Running 30m, from the start	Running 60m on the move	2000m running
<b>At the beginning of the experiment - M±m</b>					
Lightweight	240,4±2.27	46,1±8,1	4,71±0,04	8,67±0,4	6.49,8±,11,4
Middleweights	243,7±2.28	48,8 ±7,2	4,65±0,06	8,33±0,10	6.33,8±11.5
Heavyweights	236,6 ±1.7	54,6±7,3	4,73±0, 04	<b>9,33±0.3</b>	<b>8.02,9±13.8</b>
<b>At the end of the experiment - M±m</b>					
Lightweight	248.5±2.7	50,7±7,1	4,51 ±0, 03	8.31±0.4	6.32,6±11.5
Middleweights	250, 0±2,2	54,4±7.8	4,31±0,04	8,05±0,4	6.16,7±11.3
Heavyweights	242,4±1.7	59,4±7,0	4,61±0, 03	<b>9.00±0.2</b>	<b>7.92.0±14,1</b>
<b>The increase in results during the experiment (%)</b>					
Lightweight	<b>3.4</b>	<b>9.9</b>	<b>4.2</b>	<b>3.5</b>	<b>4.2</b>
Middleweights	<b>2.6</b>	<b>11.5</b>	<b>7.3</b>	<b>2.6</b>	<b>4.3</b>
Heavyweights	<b>2.1</b>	<b>8.8</b>	<b>2.5</b>	<b>2,9</b>	<b>6.02</b>

Analysis of the results. Testing of the control group at the initial and final stages of the experiment allowed us to establish an increase in physical fitness indicators for the following tests; for example, in the "long jump from a place" test for speed and strength qualities, it showed an increase in the group of wrestlers on lightweight belts by 2.6%, in middleweights by 2.5% and in heavyweights by 1.7%. The increase in strength qualities according to the DC (dynamometry) test of the hand also revealed a significant increase - in lightweights by 5.6%, in middleweights by 4.7% and the largest increase in strength qualities was established for heavyweights - amounting to 6.01%. The development of speed qualities was assessed by running at 30m and 60m. For lightweights, the increase was 2.5% in the 30 m run, for middleweights by 2.8% and for heavyweights, the lowest increase in the quality of speed was only 1.04%. In the 60m run, the lightweight KG had an increase in speed qualities of 4.1%, the middleweights - 3.2% and the heavyweights - 2.5%. According to this indicator, lightweights are in the lead, and the laggards are heavyweights. An indicator of the quality of endurance is long-distance running. So in the 2000m run at the second stage of the experiment, the increase was 3.1% for lightweights, 2.8% for middleweights and 2.8% for heavyweights.

Assessment of the physical fitness of belt wrestlers, taking into account the weight category of the control group

Weight category -KG	Long jump from a place	DC brushes	Running 30m, from the start	Running 60m on the move	2000m running
<b>At the beginning of the experiment - M±m</b>					
Lightweight	239,2±0,02	46,1±8,1	4,72±0,03	8,7±0,16	6.50,3±,12.0
Middleweights	242,0±2,3	48,5 ±7,3	4,64±0,03	8,06±0,4	6.35,8±11.5
Heavyweights	236,3 ±1.6	53,2±7,3	4,78±0,03	9,33±0.3	8.03,9±13.8
<b>At the end of the experiment - M±m</b>					
Lightweight	245,5±2.3	48,7±7,1	4,60 ±0, 03	8,2 ±0.4	6.30,6±11.5
Middleweights	248.1±2.8	50,8±8,0	4,51±0,05	7,80±0,2	6.17,7±11.3
Heavyweights	240,4±2.1	56,4±7,0	4,73±0, 04	9.10±0.2	7.80,9±12,1
<b>The increase in results during the experiment (%)</b>					
Lightweight	2,6	5,6	2,5	4.1	3,1
Middleweights	2.5	4,7	2,8	3,2	2,8
Heavyweights	1.7	6,01	1,04	2,5	2,8

The results of the study: The comparative analysis shows that the experimental program we used is more effective than the traditional program, as evidenced by the results of the physical fitness of the EG group of belt wrestlers.

Conclusions: The developed experimental program takes into account the principle of unity of general and special physical training, taking into account their ratios. Compliance with these principles is aimed at the versatile physical development of the wrestler, ensuring the development and improvement of the necessary motor skills corresponding to the specifics of the chosen sport. We took these principles into account when building an experimental training program for belt wrestlers by focusing on the formation of an effective training process, which allowed us to follow the dynamics of the development of various components of physical, functional and technical training in accordance not only with the extreme conditions of competitive activity, but also the values of the weight category when performing specific technical and tactical actions.

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