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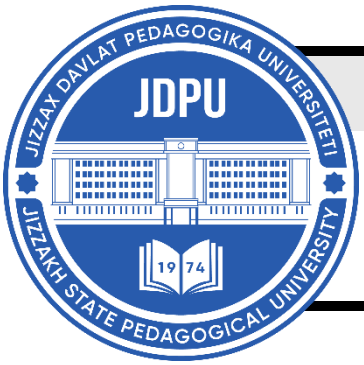

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DEVELOPMENT OF SPEED-STRENGTH QUALITIES OF WRESTLERS WITH MANY YEARS OF SPORTS EXPERIENCE, TAKING INTO ACCOUNT THEIR PHYSICAL FITNESS

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ABOUT ARTICLE

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Abstract: This article discusses methods for improving the speed-strength qualities of highly skilled wrestlers, considering their individual characteristics. It provides an overview of fundamental concepts related to wrestling, an analysis of scientific research aimed at enhancing the physical qualities of wrestlers, and studies conducted on various forms of individual combat sports worldwide. Additionally, the article explores modern changes in the field of combat sports. General conclusions are presented, along with detailed coverage of scientific research methods focused on improving the speed-strength qualities of experienced wrestlers.

Introduction.

Currently, the targeted system for the development of physical education and sports in our country is evolving, with increased attention given to young athletes. Several decrees and resolutions issued by national leadership have served as regulatory foundations for the systematic advancement of combat sports. Promoting wrestling as a national sport among the general population, especially among young people, is crucial for fostering national pride,

patriotism, and a healthy lifestyle. The growing interest and competition in wrestling tournaments at both national and international levels emphasize the need for systematic preparation of wrestlers for competitions. To enhance technical and tactical effectiveness, modern technologies must be utilized. Specifically, a structured training system must be developed to improve the speed-strength qualities of young wrestlers. This calls for the creation, refinement, and implementation of specialized testing methods to assess wrestling-specific abilities. Special sports equipment is playing an increasingly important role in the development of speed-strength qualities in young wrestlers.

LITERATURE REVIEW

Speed-strength qualities are crucial in wrestling, as noted by many researchers [1; pp. 125-130]. Recent studies indicate an increasing emphasis on these qualities. According to several authors, the rising demand for entertainment value in wrestling competitions necessitates adjustments to traditional training methods. The need for faster competition pacing requires wrestlers to exhibit absolute and explosive strength from the start of a match. Given this necessity, a more rigorous approach to developing the physical qualities of wrestlers is required. Leading researchers suggest that when selecting speed-strength training methods, the main parameters of exercises should align with the technical movements of wrestling [2; p. 97, 7; pp. 6-8, 10; pp. 26-29, 11; pp. 75-76].

Scientific and methodological literature on wrestling places significant emphasis on improving speed-strength training methods. However, it is essential to note that the terms "speed-strength qualities" and "speed-strength training" were only recently introduced into the theory and practice of sports wrestling.

Literature analysis shows that various general and specialized training exercises are used to develop speed-strength qualities in elite wrestlers. These exercises simultaneously enhance physical qualities and movement techniques, following V.M. Dyachkov's principle of combined influence [7; pp. 6-8]. Some researchers suggest that general developmental exercises can also be used for this purpose [3; p. 87, 6; p. 189].

Other scholars advocate for the development of new, unconventional training methods [5; pp. 9-12]. A.N. Lens [9; pp. 33-34] states that many wrestling movements require speed-strength characteristics. Therefore, he believes that the development of this quality should be closely linked to improving wrestling techniques, recommending the use of specialized training equipment. Researcher B.I. Butenko suggests performing exercises with varying weights at a progressively increasing pace to improve speed-strength qualities. From the literature review,

it is evident that training plays a crucial role in enhancing athletes' speed-strength readiness. The manifestation of speed-strength qualities varies across sports disciplines, necessitating a more targeted approach to training. Different sports use various general and specialized exercises to develop these qualities. Studies indicate that performing fundamental exercises at maximum speed significantly improves athletes' speed-strength readiness. The most effective training methods for developing this quality are specialized exercises that closely resemble the fundamental movements of a given sport. Currently, non-traditional training methods for speed-strength development are widely used in sports education. A closer look at the literature reveals that using sport-specific training tools to enhance wrestlers' speed-strength qualities remains an underexplored area. Critical aspects such as key skills, personal attributes, and technical and movement training, which determine wrestlers' performance, are not sufficiently covered.

RESEARCH METHODOLOGY

The study utilized literature analysis, pedagogical observation, physical fitness testing, pedagogical experiments, psycho-physiological methods, document analysis, surveys, and mathematical statistics.

ANALYSIS AND RESULTS

To analyze competitive performance, it is necessary to establish a coding system for wrestling techniques. We developed codes for nearly all common wrestling techniques, allowing us to systematically assess wrestlers using universal criteria. Before evaluating technical preparedness, it should be noted that only skilled and highly ranked wrestlers were selected for competition activity analysis. Most of these wrestlers were either medalists or ranked among the top six athletes in their respective weight categories. An analysis of technical mastery among participants in the Uzbekistan Championship indicates a high level of skill. However, some wrestlers failed to achieve favorable outcomes due to technical shortcomings. A review of competition results across weight categories highlights specific trends. For instance, in the 60 kg and 66 kg weight classes, two matches ended with the "Yonbosh" technique, accounting for 5% of all recorded matches. In the 81 kg and 90 kg weight classes, this percentage was 7%. The majority of matches (39%) concluded with a "Halol" victory. This suggests that certain strong wrestlers possess significantly superior technical skills and speed-strength training compared to others in their weight categories. Recording training sessions and analyzing all training methods used in elite wrestler preparation allows for the development of a program to track training loads. Once the informative parameters for

measuring training loads are determined, it is possible to create a structured approach to monitoring and optimizing training efficiency.

Table 1

Organization of Wrestlers' Training Sessions

№	Contents	Execution time	YQT In 1 minute	Intensity (in points)	Intensity zones
1	2	3	4	5	6
1.	Warm-up exercises	15	114	4	1
2.	Improving attacking techniques	10	144	6	1
3.	Enhancing defensive techniques	10	156	8	2
4.	Developing quick throw techniques	5	174	14	2
5.	Strengthening counterattack skills	10	138	5	1
6.	Training matches	6	186	21	3
7.	Special exercises for strengthening wrestlers' muscles	4	126	3	1

Technical Task Preparation

To prepare the technical task, it was necessary to solve another important issue without which the program could not be developed. The reaction of athletes' bodies to training loads, in the form of certain physiological changes, should be assessed using pedagogical tools to help integrally evaluate the nature of the work. Approaches to assessing training load magnitudes may vary. However, the most informative and integral indicator reflecting the functional state of an athlete’s body is HR (Heart Rate). To some extent, it also reflects the intensity of the work performed. The organization of wrestlers' training sessions is presented in Table 1.

Thus, the total training time in our session was 60 minutes. For each task, we determine the average HR and the duration of the performed work. Based on V.V. Sarvanov’s table, we establish the intensity score of the training session. For example, if during the warm-up, the average HR was 132 beats per minute and lasted for 15 minutes, then according to the table, it corresponds to 4 points. The complex manifestation of athletes' special physical capabilities was determined using the following tests:

- Time taken to perform 8 "hip throws"
- Time taken to perform 15 "hip throws"

For these tests, the sprint time and the pedagogical evaluation of the performed throws were assessed.

Table 2

Dynamics of Speed-Strength Indicators in Control Groups of Wrestlers During Pedagogical Research

№	Tests	Before study	After study	Growth %
1	Time for 10 pull-ups (seconds)	12,5	11,7	6,4
2	Time for 10 sit-ups (seconds)	12,2	11,4	6,6
3	Time for 10 vertical jumps (0.7m) (seconds)	7,4	7,1	4,1
4	Time for 10 body lifts from a lying position (seconds)	13,3	12,4	6,8
5	Time for 8 side turns: a) (seconds) b) Pedagogical assessment	 a) 14,6 b) 4,1	 13,1 4,7	 10,3 14,6
6	Time for 15 side turns: a) (seconds) b) Pedagogical assessment	 a) 34,6 b) 4,0	 32,4 4,6	 6,4 15,0
7	Standing long jump distance (cm)	240	262	9,2

Analysis of Table 2

When examining Table 2, we can see the test results of the experimental group wrestlers at both the beginning and the end of the pedagogical experiment. It is worth noting that the physical preparedness level of almost every wrestler improved, although the percentage of improvement was not uniform. This variation is likely due to the fact that the initial level of readiness to handle such training loads differed among the wrestlers.

The best improvement in the long jump was 22 cm. Here, we can assume that the lower the initial level of physical preparedness at the beginning of the experiment, the higher the growth of the measured parameters at the end. However, when analyzing the percentage increase in the examined indicators, it was found that the standing jump improved by 9.2%.

Throughout the experiment:

- The time for 10 pull-ups improved by 6.4%
- A similar improvement was observed in the 10 squat-jump test
- Minor improvements were recorded in the following tests:
  - Time to perform 10 jumps to a height of 0.7m(4.1%)
  - Time to perform 10 sit-ups (6.8%)

- Time to perform 15 "hip throws" (6.4%)

The most significant improvements were observed in:

- The number of "hip throws" performed 8 times and their pedagogical evaluation, which increased by 15.0%. These results demonstrate the extent to which the physical preparedness level of the experimental group wrestlers improved from a pedagogical perspective.

CONCLUSION

As a result of the comparative analysis of the obtained data, we can conclude that by the end of the pedagogical experiment, the skill level in performing exercises and the physical development and speed-strength qualities of the experimental group wrestlers had significantly improved compared to the control group gymnasts. Thus, in the practice of training high-level wrestlers, the specialization of exercises can be considered the primary criterion for classifying training tools. Based on this, all training tools can be divided into General Physical Training (GPT) and Special Physical Training (SPT) exercises. At the second level of classification (further subdivision into larger groups), the criterion of structural similarity with training exercises is used. At the third level of classification (subdividing groups into smaller subgroups), the specific physical qualities being developed should be considered. In this case, it is necessary to evaluate the volume and intensity of exercises.

At the first level of classification, one group consists of general physical exercises, while the second consists of specialized exercises. GPT tools include both cyclic (sports such as running, swimming, rowing, etc.) and acyclic (sports such as team games, acrobatics, weightlifting, etc.) exercises. In turn, specialized exercises are divided into personal competition preparation and special preparation exercises that include all types of competitive activities.

Training tools aimed at improving the technical-tactical actions of wrestlers are classified as special preparation tools.

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