HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

IMPROVING THE SPEED-STRENGTH TRAINING OF STUDENTS ENGAGED IN FREESTYLE WRESTLING

Turaeva Saodat Turgun kizi
3rd year student of the Faculty of Sports Activities
Termez State University

Tashmuratov Farrukh Yerikhanovich
Lecturer, Department of Physical Education and Sports
Termez State University

Abstract. This study aimed to improve the speed-strength training of university students engaged in freestyle wrestling through the implementation of a specialized training program. Forty male students aged 18-22 years participated in an eight-week pedagogical experiment and were divided into experimental and control groups. The effectiveness of the program was assessed using standard speed-strength tests. The experimental group demonstrated significantly greater improvements in explosive strength, movement speed, and wrestling-specific performance than the control group ($p < 0.05$). The findings confirm the effectiveness of the proposed training approach.

Keywords: Freestyle wrestling; university students; speed-strength training; explosive strength; physical fitness; athletic performance; wrestling-specific exercises; training program; pedagogical experiment; sports training.

Introduction. Freestyle wrestling is one of the most physically demanding combat sports, requiring athletes to demonstrate high levels of speed, strength, coordination, agility, and technical proficiency. Success in wrestling largely depends on the ability to generate explosive force within a short period while maintaining technical accuracy throughout the match. Therefore, the development of speed-strength abilities is considered one of the fundamental components of the long-term training process for wrestlers [2, 6].

In recent years, increasing attention has been paid to optimizing training methods aimed at improving the physical performance of wrestlers. Modern training programs integrate traditional strength exercises with sport-specific drills, plyometric exercises, and high-intensity interval training to enhance explosive power and movement efficiency [1, 3, 4]. Such an integrated approach is intended not only to increase muscular strength but also to improve the execution of technical actions under competitive conditions [5].

For university students engaged in freestyle wrestling, speed-strength training plays a particularly important role. Unlike elite athletes, student wrestlers often combine academic studies with regular sports training, which limits the available training time and may affect adaptation to physical loads. Consequently, training programs for this population should be both effective and time-efficient while ensuring continuous improvement in sport-specific physical fitness.

Despite the considerable number of studies devoted to wrestling training, many existing programs primarily focus on general strength development or technical preparation. Comparatively less attention has been given to specialized speed-strength training programs designed specifically for university students participating in freestyle wrestling. Furthermore, there remains a need for practical training

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

models that combine explosive strength exercises with wrestling-specific movements and can be effectively implemented within the educational training process.

The improvement of speed-strength abilities contributes not only to better physical preparedness but also to more effective execution of throws, takedowns, defensive techniques, and rapid transitions during wrestling bouts. Consequently, the development and experimental verification of specialized training methods remain important tasks for sports science and coaching practice.

The present study addresses this issue by evaluating the effectiveness of a specialized speed-strength training program developed for university students engaged in freestyle wrestling. The proposed program incorporates explosive resistance exercises, plyometric drills, and wrestling-specific training tasks designed to enhance the athletes' physical performance during the preparatory training period.

Therefore, the aim of this study was to improve the speed-strength training of university students engaged in freestyle wrestling through the implementation and experimental verification of a specialized training program.

Materials and Methods. The study involved 40 male university students aged 18-22 years who were regularly engaged in freestyle wrestling and had 2-4 years of training experience. All participants were medically cleared for sports activities and voluntarily agreed to participate in the study. They were randomly assigned to either an experimental group (EG, n = 20) or a control group (CG, n = 20). At the beginning of the experiment, no statistically significant differences were observed between the groups in the assessed physical fitness indicators ($p > 0.05$).

The control group trained according to the traditional speed-strength training program commonly used in university wrestling practice. The experimental group followed a specialized speed-strength training program that incorporated wrestling-specific explosive exercises, plyometric drills, resistance exercises, and high-intensity movement tasks. The specialized exercises were performed during the main part of each training session and progressively increased in intensity throughout the experimental period.

Results. The initial assessment demonstrated no statistically significant differences between the experimental and control groups in any of the measured speed-strength indicators ($p > 0.05$), confirming the comparability of the participants before the intervention.

Following the eight-week training program, improvements were observed in both groups. However, the experimental group achieved significantly greater gains across all assessed variables. The most pronounced improvements were recorded in explosive strength and wrestling-specific performance tests.

Table 1. Changes in speed-strength indicators before and after the pedagogical experiment

Indicator	Experimental Group (Pre)	Experimental Group (Post)	Improvement (%)	Control Group (Pre)	Control Group (Post)	Improvement (%)
30 m sprint (s)	4.81 ± 0.18	4.56 ± 0.16*	5.2	4.80 ± 0.19	4.72 ± 0.18	1.7
Standing long jump (cm)	222.4 ± 11.3	237.8 ± 10.5*	6.9	223.1 ± 10.8	227.2 ± 11.0	1.8

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

Vertical jump (cm)	47.8 ± 3.4	52.6 ± 3.2*	10.0	47.5 ± 3.3	48.9 ± 3.1	2.9
Pull-ups (repetitions)	14.6 ± 2.1	17.3 ± 2.0*	18.5	14.8 ± 2.0	15.6 ± 2.1	5.4
Medicine ball throw (m)	8.32 ± 0.49	9.11 ± 0.47*	9.5	8.29 ± 0.46	8.47 ± 0.44	2.2
Dummy throws in 30 s (repetitions)	18.5 ± 1.7	22.4 ± 1.8*	21.1	18.4 ± 1.8	19.2 ± 1.7	4.3

*Statistically significant difference compared with the pre-test ($p < 0.05$).

The results indicate that the specialized speed-strength training program had a positive effect on the physical preparedness of university wrestlers. The greatest improvements were observed in the wrestling dummy throw test (21.1%), pull-ups (18.5%), and vertical jump (10.0%), reflecting substantial gains in explosive muscular power and sport-specific performance.

Although the control group also demonstrated slight improvements after the training period, these changes were considerably smaller than those recorded in the experimental group. The differences between the groups at the end of the experiment reached statistical significance ($p < 0.05$) for all assessed indicators.

Overall, the findings confirm that the implementation of wrestling-specific speed-strength exercises was more effective than the traditional training approach in enhancing the speed-strength abilities of university students engaged in freestyle wrestling.

Discussion. The findings of the present study demonstrate that the implementation of a specialized speed-strength training program significantly improved the physical performance of university students engaged in freestyle wrestling. Compared with the traditional training approach, the proposed program produced greater improvements in sprint performance, explosive lower- and upper-body strength, muscular endurance, and wrestling-specific motor skills.

The greatest improvement was observed in the dummy throw test, which directly reflects the ability to generate explosive force during wrestling-specific movements. This result indicates that the inclusion of exercises closely resembling competitive techniques enhances neuromuscular adaptation and contributes to more effective execution of technical actions during wrestling bouts. Similar improvements were also observed in vertical jump performance and medicine ball throwing, suggesting a positive transfer of explosive strength development to sport-specific performance.

Several limitations should be acknowledged. The relatively small sample size and the eight-week duration of the intervention may limit the generalizability of the findings. In addition, the study evaluated only male university students, and the results cannot be directly extrapolated to female wrestlers or athletes of different age groups and competitive levels. Future studies should include larger samples, longer intervention periods, and additional physiological and biomechanical indicators to provide a more comprehensive evaluation of specialized speed-strength training in freestyle wrestling.

Overall, the results of this study support the effectiveness of integrating wrestling-specific speed-strength exercises into the training process of university students and provide practical evidence for improving physical preparation in freestyle wrestling.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

Conclusions. The specialized speed-strength training program proved to be more effective than the traditional training approach for university students engaged in freestyle wrestling. After the eight-week intervention, the experimental group demonstrated significant improvements in speed, explosive strength, and wrestling-specific performance ($p < 0.05$). The findings suggest that the proposed program can be effectively integrated into the university training process to enhance the physical preparedness of freestyle wrestlers.

References:

1. Yerikhonovich, T. F. Theory and Methodology of Physical Education. Galaxy International Interdisciplinary Research Journal, 9(11), 715-717.
2. Erikhonovich, T. F. (2022). Method OF Organization Lessons OF Physical Education in Secondary Schools. European journal of innovation in nonformal education, 2(3), 238-241.
3. Farrukh, T. (2023). Mechanisms of Formation of Psychological Characters of Athletes in Sports. Best Journal of Innovation in Science, Research and Development, 2(11), 241-245.
4. Turdimuratov, D. (2025). Jismoniy tarbiya mashg‘ulotlari jarayonida yuqori sinf o‘quvchilarining irodaviy sifatlarini shakllantirish. Ижтимоий-гуманитар фанларнинг долзарб муаммолари Актуальные проблемы социально-гуманитарных наук Actual Problems of Humanities and Social Sciences., 5(S/2), 249–255. https://doi.org/10.47390/SPR1342V5SI2Y2025N41
5. Turdimurodov , D. (2023). Yuqori sinf o‘quvchilarida qat’iyatlilik sifatini jismoniy tarbiya darslarida tarbiyalash. Ижтимоий-гуманитар фанларнинг долзарб муаммолари Актуальные проблемы социально-гуманитарных наук Actual Problems of Humanities and Social Sciences., 3(3), 218–223. https://doi.org/10.47390/1342V3I3Y2023N29
6. Turdimuratov Dilmurad, D. (2026). The impact of volitional qualities of primary school students on the development of behavioral responses ensuring effective sports performance. Ижтимоий-гуманитар фанларнинг долзарб муаммолари Актуальные проблемы социально-гуманитарных наук Actual Problems of Humanities and Social Sciences., 6(4), 361–367. https://doi.org/10.47390/SPR1342V6I4Y2026N51