MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL

http://mentaljournal-jspu.uz/index.php/mesmj/index



ANALYSIS OF THE ASYMMETRY OF TECHNICAL AND SPEED-STRENGTH TRAINING OF FEMALE JUDOKAS ON A SPECIAL SIMULATION SIMULATOR

Sangina Ismatullaeva

Doctor of Philosophy (PhD) in Pedagogical Sciences Uzbek State University of Physical Culture and Sports

E-mail: ismatullaevasangina835@gmail.com

Chirchik, Uzbekistan

ABOUT ARTICLE

Key words: simulation, simulator, athletes, technique, speed-strength, physical fitness, specialized exercises, asymmetry, analysis, preparation.

Received: 10.08.25 **Accepted:** 12.08.25 **Published:** 14.08.25 Abstract: This article focuses on the targeted preparation of female judokas for competitions through the analysis of advanced methods and data within the judo sports industry. It emphasizes the application of insights gained from observing and analyzing competitions to enhance the training process. The research is directed toward improving the speed-strength, technical. psychological, and functional readiness of female judokas. The use of modern methods and advanced technologies in sports training enables a thorough investigation of the asymmetry problem speed-strength in preparation in judo.

Introduction

The development of sports in our republic, the education of strongly competitive, highly qualified judoka girls in the international arena and the cultivation of mature specialist personnel with scientific and practical good skills are becoming a priority of the policy of our state. Due to the targeted reforms in our country, special attention is paid to the further development of physical education and sports. Studies have not been carried out by analyzing the process of training judo girls for competitions and choosing styles related to the individual

characteristics of athletes, correctly applying tools in the definition of training programs, analyzing the indicators of judo girls ' competition activities on a special simulation trainer, using special sports equipment for the level of physical and technical training. In addition, there is a need to optimize training programs, a quick analysis of the indicators of the competition activities of judoka girls, the use of special sports equipment in the analysis of the asymmetry of physical, technical and fast-strength training of qualified judoka girls. At the same time, this research work determines the need to carry out scientific research work related to pedagogical observations on the analysis of technical and rapid-force training asymmetry of judoka-girls using a special trainer based on the analysis of competition activities.

Literature analysis and methods

Currently, in the process of studying the scientific and methodological literature of the development of judo and other types of sports wrestling in our country, as well as the development of technical-tactical and rapid-force training of wrestlers in the process of analysis, as well as the problems of a new scientific-theoretical approach to their training were given in the scientific-methodological work of, [1.,2., 3., 4].

At the same time, as a result of the study of scientific and methodological literature of foreign scientists, scientific research was carried out on the analysis and development of rapid-force asymmetry in athletes. At the same time, the authors note in the work of a number of authors about the correct application of training tools and loadings in the physical and technical-tactical training of wrestlers. In Particular, D.Sale, G.Wang, H.Liou, P.Liou, W.Pulkkinen, L.Monteiro, De.Cree, L.Jones, M.Baić, N.Trajković, D.Djordjevic, M.Stankovic, D.Given in the scientific and methodological work of the pekas [5., 6., 7., 8., 9]. Noting that a large scientific and methodological experience in this area has been accumulated, it was found that harmonious task solutions for improving the effectiveness of technical training of judoka girls and developing fast-strength abilities lead to high efficiency.

The purpose of the study is to assess the asymmetry of technical and fast-strength indicators of judoka girls using a special simulation trainer in the training process, as well as to increase the potential of the outcome of the competition.

Results and discussion

to increase competition performance through the use of sports equipment designed to determine the speed-strength training and improve the effectiveness of judo girls in the training process;

analysis of asymmetry of technical and fast-strength training of athletes using a special simulation trainer in the training process of judo girls;

development of a mechanism for the development of technical speed-strength and special level of physical fitness in the educational and training process of judoka girls with the help of special exercises;

the competition is based on the calendar plan to optimize the annual training process of judoka girls.

The scientific novelty of the study consists of:

with the help of the application of a special set of exercises performed on a sports trainer designed to determine and develop the rapid-strength training of qualified judoka girls, the level of speed-strength, physical training was increased due to the change in training (Annual Monthly and weekly) programs;

in a special simulation trainer, which was first created in order to improve the effectiveness of technical and fast-strength movements of qualified judoka girls, a competition consisting of a complex of exercises that were approximated to the process of competitions was held at the expense of use during the preparatory period, the effectiveness of technical actions was increased;

the criteria for improving the effectiveness of technical and fast-strength capabilities due to the sequential application of a special set of exercises aimed at improving the effectiveness of technical actions during training and quick-strength training ratios, taking into account complex situations in the case of Nage-waza and Ne-waza in training and competition activities of judoka girls;

in order to increase the productivity of judo girls 'competition activities, the methodology of effective training of female athletes with the help of annual and weekly training loads and complex control over recovery tools has been improved.

The practical results of the study include:

an instrumental method for asymmetric analysis has been developed based on the development of technical and fast-strength training of judoka girls through a special simulation trainer "ASIS WRESTLING;

the effectiveness of the methodology for improving the physical fitness of judoka-girls and the level of strength training has been proven in pedagogical experience and scientific and practical recommendations have been developed;

a complex of the use of special trainers and exercises has been developed in the organization of the training process, which is aimed at performing the main technical methods of judo sports and improving fast-strength training, and has been found to be effective in practice;

judoka-the methodology for compiling and evaluating the optimal proportions of the annual preparatory classes for the preparatory, competition and transition periods of girls is improved.

Scientific and practical significance of research results. Scientific significance of the study is that the importance of results through the development of technical and rapid-force training based on the integrated control of the training of qualified judoka girls in a pedagogical experiment using new tools and programs of targeted improvement of the training of judoka girls, they have also been tested in determining the effectiveness of their application, and the use of a training process management operational control system to increase the level of effective management decision-making between the coach and the athlete is proven to be important in planning the stages of sports training.

And the practical significance of the results of the study is the invention of a special "ASIS WRESTLING" simulation trainer and "ZK" sports equipment in the analysis of the asymmetry of technical and fast-strength training of qualified judo girls, and the data obtained in practice developed a methodology for improving the effectiveness of technical and fast-strength training, taking into account changes in, in order to increase the effectiveness of their competition activities, the principles developed in the sport of judo are determined by a number of innovations that are used by specialists in the process of training of girls of sports educational institutions specializing in other types of wrestling and judo of the national team of Uzbekistan.

Implementation os research results. Based on the results of the methodology, experience and research conducted on the analysis of the asymmetry of technical and fast-strength training of judoka-girls in the process of training;

the results of the rapid-strength, physical training level were introduced into the process of training of student girls of the Uzbek State University of physical education and Sports (Reference Book No. 03-16/9728 according to the Order of the Ministry of Sports of Uzbekistan dated October 2, 2024) due to the change in training (Annual Monthly and weekly) programs using the application of a special As a result, 1 Gold, 1 Silver, 1 bronze at international competitions; and 1 Gold, 1 Silver, 2 bronze at Uzbek championships;

in judo wrestling, athletes received a competition through a special "ASIS WRESTLING" simulation trainer to perform the main technical methods of wrestling and organize a training and training process aimed at the competition process in order to increase the effectiveness of technical attack movements and rapid-force training of girls proposals and recommendations for expanding the possibilities of technical movements due to use in preparatory training introduced into the process (reference number 03-16/9728 according to the Order of the Ministry of Sports of Uzbekistan dated October 2, 2024). As a result, special physical fitness has improved by 12% due to the use of exercises performed on a special simulation trainer;

in training and competition activities of judoka girls, a special set of exercises was developed, which, taking into account complex situations in the case of Nage-Waza and Newaza, aimed at improving the effectiveness of technical actions and rapid-force training ratios during training. proposals and recommendations on the developed tools and styles were introduced into the training and training process of the girls of Judo Federation of Uzbekistan (according to the Order of the Ministry of Sports of Uzbekistan dated October 2, 2024, reference number 03-16/9728). As a result, the physical fitness of athletes has improved by 15% due to the use of special exercises performed in singles and doubles;

the proposal and recommendations on the results of the methodology for the effective compilation of classes using annual and weekly training loads of girls and complex control over recovery tools in order to increase the effectiveness of judo girls 'competition activities are integrated into the content of the training manual "theory I methodology judo" (reference book 03-16/9728 according to the Order of the Ministry of As a result, the competition potential was optimized by an effective 18% using weekly programs aimed at improving the training of judoka girls in technical actions and speed-strength skills according to the competition calendar plan, and the asymmetry analysis of complex technical methods of female athletes achieved the goal from pedagogical experience.

Conclusion

Literature on the organization and conduct of sports training of judoka girls the following conclusions were formed from the study of sources, pedagogical observations carried out, conducted research, pedagogical testing and analysis of the results of pedagogical experience;

Theoretical analysis and generalization of scientific and methodological literature dedicated to the competitive activities and training processes of judo girls in the sport of judo showed that many studies have been carried out to control and evaluate the special physical

training of judo girls, however, currently, in the system of training of spotty girls, exercises performed on special simulation trainers and new methodologies, at the same time, insufficient work has been carried out on a new approach to the preparatory periods of judoka girls and their inclusion in the weekly training program, as well as the application of new technologies. At the same time, the introduction of innovative methods in the modern conditions that exist in the sport of judo made it possible to determine that in the process of effective training there is a strong need to formulate the asymmetry of technical and fast-strength training of judo Girls based on modern scientific approaches;

Judo girls 'asymmetry of judo girls was improved by 12% according to the results of studies conducted using the basic exercises of judo sports through a special "ASIS WRESTLING" simulation trainer in the organization of a directed training process in order to perform technical attack haralats of wrestling as well as to increase the effectiveness of rapid-force training;

Taking into account the complex situations in the case of Nage-waza and Ne-waza in order to effectively control the training process of judoka girls and improve the level of special physical fitness, the use of a special set of exercises performed in singles and couples aimed at the targeted development of the level of physical fitness and technical and fast-strength quality at the same time in tatami.

References:

- 1. Азизов Н.Н. Малакали дзюдочиларнинг махсус ва мусобака олди тайёргарлигини шакллантириш: Пед. фан. ном. ... дисс. Тошкент, 2007. 143 б.
- 2. S.Q.Adilov. Intellektual sensor tizimlaridan foydalangan holda sport kurashida koordinatsion va texnik-taktik harakatlari integratsiyasi: Ped. fan. dok. ... dis. (DSc), Chirchiq: OʻzDJTSU, 2024. B. 35-55.;
- 3. Бакиев З.А. Индивидуализация технико-тактической подготовки борцов, на основе автоматизированного анализа соревновательной деятельности: Дис. ... канд. пед. наук: -Ташкент: УзГИФК, 2009. 131 с.
- 4. Kerimov F.A. Sportda ilmiy tadqiqotlar / Darslik. Toshkent, "ZAR QALAM", 2018.– 348-b.
- 5. Sale D. Testing Strength and Power // The Physiological Testing of the High-Performance Athlete. Champaign, IL.: Human Kinetics Publishers. 1991. №12. pp. 36-39.
- 6. Wang, G., Liou, H., & Liou, P. Biomechanical analysis of hold-throw technique in elite wrestler. In Y.Hong, D.Johns, R.Sanders (Eds.), Proceedings of 18th International

Symposium on Biomechanics in Sports Hong Kong, China: International Scociety of Biomechanics and Sports. (2000). – pp. 312-313.

- 7. Pulkkinen W. The sport science of elite judo athletes, Pulkinetics Inc., (2001). 93 pp.
- 8. De Cree C, Jones L: Kodokan Judo's Elusive Tenth Kata: The Go-no-kata "Forms of Proper Use of Force" Part 1. Arch Budo, 2009. 5: pp. 55–73.
- 9. Baić M, Trajković N, Djordjevic D, Stankovic M, Pekas D. Strength profile in wrestlers-a systematic review. Archives of Budo 18. Chicago, 2022. pp. 151-164.
- 10. S.R.Ismatullayeva Maxsus simulyatsiya trenajyorida dzyudochi qizlarning texnik va tezkor-kuch tayyorgarligi asimmetriyasini tahlil qilish: p.f.b.f.d... dis... avtoreferati. (PhD)., Chirchiq. OʻzDJTSU, 2025.