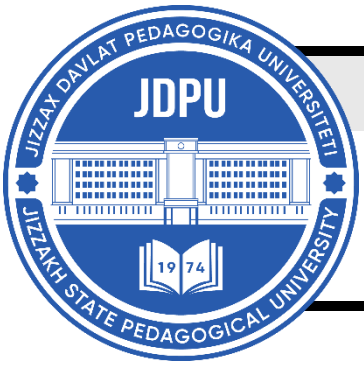
DOI: https://doi.org/10.37547/mesmj-V6-I2-33 Pages: 263-271

MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL

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

DEVELOPMENT OF MICROCYCLE TRAINING PLANS IN TRACK AND FIELD CLUBS OF HIGHER EDUCATIONAL INSTITUTIONS

Bunyodbek Ro'ziqulov
Associate Professor, PhD in Pedagogical Sciences
Department of Physical Culture and Sports
Economics and Pedagogy University
Email: bunyod_2020@mail.ru
Uzbekistan, Tashkent

ABOUT ARTICLE

Key words: Track and field, sports clubs, training cycles, physical education, students, training process, microcycle.

Received: 16.03.25
Accepted: 18.03.25
Published: 20.03.25

Abstract: This article discusses the planning and organization of microcycle training sessions for students in track and field clubs. It highlights the importance of selecting appropriate methods and tools that consider athletes' physical development characteristics to ensure the preparation of competitive athletes at the international level. The study emphasizes that the correct selection of training methods and tools positively impacts the development of a structured athlete preparation system. Furthermore, the necessity of selecting reserve athletes and conducting effective long-term training programs is underlined. The organization of structured training sessions in track and field remains a crucial issue, and its advancement will contribute to enhancing the efficiency of modern sports training.

Introduction

In recent years, one of the key directions of state policy in modern physical education and sports in our country has been organizing and conducting physical education programs, mass sports activities, and comprehensive sports competitions in higher educational institutions. Selecting talented athletes from among the youth and training them in a targeted manner is of paramount importance.

Planning and organizing the annual training process for runners in track and field while considering the characteristics of athletes' physical development and selecting the appropriate training methods and tools positively contribute to the system of preparing athletes who can compete at the international level. This, in turn, necessitates the selection of reserve athletes and the implementation of effective long-term training programs through scientific research. The structuring of training sessions in track and field is one of the pressing issues, and its improvement serves to enhance the effectiveness of athlete preparation under modern conditions.

Literature Review

Experts recognize that during the initial stages of training in track and field, it is crucial to create optimal conditions that align with the physical capabilities of students. These conditions help students acquire fundamental movement skills, enhance their teamwork and individual engagement, and develop their movement abilities and coordination. The role of effective teaching methods in shaping motor skills is also widely acknowledged.

With the rapid advancement of information exchange, the process of nurturing a healthy generation has become more complex. In the modern age of rapid communication, increased social interactions have led to heightened psychological stress among individuals. Issues such as intolerance, irritability, and mental exhaustion are becoming prevalent in society. This highlights the need to create a healthy social environment and raise future generations with both mental and physical well-being.

Recognizing that human development occurs through the harmony of mental and physical attributes, society must focus not only on intellectual growth but also on fostering physical culture. This has prompted systematic efforts in our country to nurture a healthy generation. With the government's increasing attention to sports, public interest in physical activities is growing, and physical education is becoming an integral part of daily life. This contributes not only to the promotion of a healthy lifestyle but also to the overall advancement of the sports sector in the country.

As stated by President Shavkat Mirziyoyev:

"Establishing a healthy lifestyle in society and popularizing physical education and sports are among today's most urgent tasks. We will continue to focus on the rapid development of sports and the encouragement and support of athletes who achieve high results in international competitions."

Furthermore, one of the key initiatives of the President involves creating necessary conditions for youth to develop physical culture, engage in sports, and showcase their abilities.

Over the past years, significant efforts have been made in our country, as well as in all regions, cities, and districts, to develop physical education and sports. This includes creating conditions for youth to engage in various sports, fostering a healthy environment through physical education initiatives, and restructuring sports schools and clubs. Regular sports competitions have also been systematically organized.

Materials and methods

The necessity of adopting a new approach in higher educational institutions to develop students' physical culture is becoming increasingly evident. This approach emphasizes comprehensive personality development, physical education, health improvement, physical fitness, and the promotion of a healthy lifestyle.

The Role of Physical Culture in Society

Physical culture, like other forms of culture, is an integral part of an individual's holistic development. Teaching students in higher education institutions to care for their health, maintain an active lifestyle through regular sports participation, and develop independent physical education skills is the primary goal of the pedagogical process.

Physical culture encompasses a set of achievements in creating, optimizing, and utilizing specialized tools, methods, and conditions that contribute to human physical development and perfection. In the context of social development, physical culture serves several distinct functions:

- Establishing rational norms for motor activity.

- Preserving and transmitting cultural knowledge, data, and information related to physical education from generation to generation.

- Shaping interpersonal communication and manifesting aesthetic grace in human movements.

- Ensuring the physical readiness of individuals for sustained movement and activity.

Results

Developing control norms to assess students' physical fitness and key motor abilities in track and field training is of great importance.

The microcycle structure model, designed to improve the training system for short-distance runners, has scientific and practical significance in rationally planning training

microcycles and monitoring training loads and sports performance growth for athletes engaged in short-distance running.

Based on these control norms, pedagogical testing was conducted, and as a result, athletes were grouped into specialized categories according to their indicators of speed, speed endurance, and speed-strength qualities to organize effective training sessions.

- Speed – "A" group: Athletes who demonstrated good results in the 30-meter approach run, 30-meter, 60-meter, and 100-meter sprints from a standing start were included in this group.

- Speed endurance – "B" group: Athletes who performed well in the 150-meter, 200-meter, 300-meter, and 600-meter running tests were included in this group.

- Speed-strength – "S" group: Athletes who showed good results in standing long jump, triple jump from a standing position, forward shot put, and bench press tests were included in this group.

Table 1.

Physical fitness indicators of the experimental group students at the beginning of the study.

Pedagogical Tests	Groups		
	«A» (n=12)	**«V» (n=12)**	**«S» (n=12)**
	$\bar{x}\pm\sigma$	**$\bar{x}\pm\sigma$**	**$\bar{x}\pm\sigma$**
30 m sprint from a standing	4,58±0,1	4,61±0.1	4,64±0,1
30 m sprint with a flying start	3,50±0,2	3,65±0,1	3,62±0,1
60 m sprint from a standing	8,10±0,3	8,30±0,2	8,24±0,3
150 m run (s)	19,64±0,6	19,30±0,7	19,70±0,4
300 m run (s)	39,78±0,8	38,90±1,2	39,74±0,9
600 m run (s)	92,10±2,02	90,50±2,5	92,30±1,8
Standing long jump (cm)	232,10±15,	230,40±15,	237,40±19,5
Standing triple jump (cm)	675,60±5,2	673,8±45,7	688,1±62,4
Running long jump (m)	4,48±0,3	4,51±0,2	4,57±0,3
Shot put forward throw (7.260 kg) (m)	10,00±0,8	10,03±0,8	10,27±1,1
Shot put overhead throw (7.260 kg) (m)	10,10±0,8	9,90±0,6	10,32±1,1
Squat with a barbell (kg)	75,50±10,7	74,70±10,7	80,30±13,8

Pull-ups (kg)	40,77±5,1	37,30±3,8	40,80±4,6

Table 1 presents the description of physical fitness indicators in the stratified groups of short-distance running students at the beginning of the pedagogical research.

In the 30-meter sprint from a standing start, athletes in group "A" completed the run in 4.58±0.1 seconds, group "B" in 4.61±0.1 seconds, and group "S" in 4.64±0.1 seconds. The statistical difference between the three groups was P>0.05.

In the 30-meter sprint with a flying start, athletes in group "A" completed the run in 3.50±0.2 seconds, group "B" in 3.65±0.1 seconds, and group "S" in 3.62±0.1 seconds. Again, the statistical difference between the three groups was P>0.05.

Thus, in groups "A" and "B," the statistical reliability of performance differences in the 30-meter sprint with a flying start and the 300-meter run was P<0.05, while in the remaining 13 control exercises, no statistically significant differences were observed between the three stratified groups.

To study the theoretical and practical aspects of the dynamics of athletes' physical fitness, pedagogical research was conducted through testing during training sessions and participation in competitions.

Based on the obtained results, the most important factors for differentiating the physical fitness of short-distance running students were identified.

Monitoring the individual indicators of speed, speed-strength, and speed-endurance qualities of short-distance running students allowed for a quantitative assessment of the impact of physical load on their condition. This, in turn, helped to differentiate and optimize the modeling process of micro-, meso-, and macro-cycles.

Table 2

Structure of Microcycles in the Training of Short-Distance Runner Students in Athletics Clubs

Types of Microcycles	Objective	Characteristics	Working HR, bpm	Number of repetitions, times
Preparatory	Initial adaptation to planned training loads	Gradually increasing the training load	130-150	8-10
Developmental	Gradually increasing the level of physical fitness	Applying significant to high training loads	140-170	8-10

Shock	Enhancing physical fitness using maximum training loads	Applying significant to near-limit loads (using the repeated training method in complex conditions while maintaining optimal speed with high frequency)	160-190	6-8
Pre-competition	Preparing under conditions similar to competitions	Applying moderate loads (using competition-oriented methods)	180-190	4-6
Competitive	Direct participation in competitions	Applying high to maximal loads (competition-specific activity)	190 and more	Starts
Recovery	Recovery of the athlete's body after significant physical loads and psychological stress using active recovery (rest) methods	Applying low training loads	130-140	Applying a wide range of recovery methods

The analysis of the training process for short-distance running students has made it possible to develop a model of microcycle structures, which classifies the load components for each microcycle based on the adaptation to high-intensity exercises and the degree of recovery.

In the microcycle structure model for short-distance runners' training, each type of microcycle is described in terms of its goal, characteristics, working heart rate (WHR), and load components. These components include the number of exercise repetitions, number of attempts, execution intensity, rest intervals, and duration (see Table 2).

Table 3

Physical Fitness Indicators of Experimental and Control Group Students

Control Exercises	TG (n=20)			NG (n=20)		
	At the beginning of the	At the end of study	Growth %	At the beginning of study	At the end of study $\bar{x}\pm\sigma$	**Growth, %**
30 m sprint from a crouching start (s)	4,61±0,14	4,34±0,13	5,85	4,6±0,14	4,57±0,15	0,65

30 m sprint with a flying start (s)	3,62±0,17	3,30±0,16	8,83	3,63±0,17	3,56±0,18	1,92
60 m sprint from a crouching start (s)	8,24±0,31	7,23±0,08	12,2	8,25±0,33	7,86±0,23	4,6
150 m run (s)	19,59±0,6	17,84±0,4	8,9	19,58±0,3	19,07±0,31	2,6
300 m run (s)	39,48±1,1	37,35±0,8	5,39	39,47±0,6	38,8±0,5	1,6
600 m run (s)	91,69±2,3	87,9±1,91	4,13	91,66±2,4	90,1±2,5	1,7
Standing long jump (cm)	233,34±17	277,4±11,	18,8	233,37±15	248,9±14,1	6,6
Standing triple jump (cm)	679,18±56	715,6±53,	5,36	679,43±52	688,1±51	1,2
Running long jump (m)	4,52±0,3	5,59±0,31	23,6	4,5±0,26	4,77±0,2	6
Shot put forward throw (7.260 kg)	10,11±0,9	11,37±0,9	12,4	10,12±1,0	10,59±0,	4,5
Shot put overhead throw (7.260 kg)	10,14±0,9	11,29±0,9	11,3	10,13±0,8	10,56±0,	4,2
Maximum weight squat with a barbell (kg)	76,87±12,5	94,5±15,03	22,9	76,84±11,6	81,81±12,23	6,45
Bench press (kg)	39,62±5,0	49,5±6,3	24,9	39,65±5,0	42,96±5,	8,3

Analysis of the Training Process for Short-Distance Running Students

The analysis of the training process for short-distance running students has made it possible to develop a model of microcycle structures, which classifies the load components for each microcycle based on adaptation to high-intensity exercises and the degree of recovery.

Discussion

Table 3 presents the physical fitness indicators of short-distance running students in the experimental and control groups at the end of the pedagogical research. The tables indicate that after the research, the following improvements were observed in male students from the experimental group:

- 30-meter sprint from a standing start improved by 8.85%
- 30-meter sprint with a flying start improved by 8.83%,
- 60-meter sprint from a standing start improved by 12.2%,
- 150-meter run (measuring speed endurance) improved by 8.9%,
- 300-meter run improved by 5.39%,
- 600-meter run improved by 4.13%,
- Standing long jump (measuring speed-strength) improved by 18.8%,
- Triple jump from a standing position improved by 5.36%,
- Shot put forward throw improved by 12.4%,

- Pull-ups improved by 24.9%.

Conclusion

In conclusion, developing the physical culture of university students through athletics clubs is a pressing task in today's educational system. Physical education plays a crucial role in shaping well-rounded individuals, promoting a healthy lifestyle, and strengthening physical development and well-being. The research showed that in stratified groups of student-athletes, repetitive training methods in complex conditions helped improve physical fitness. This method involved maintaining optimal speed at high frequency to develop physical qualities that were initially below the required level.

According to the results of pedagogical research, students in the experimental group improved:

- Speed qualities by 8.98%,
- Speed-endurance by 6.14%,
- Speed-strength by 27.1%.

In contrast, the control group, where this approach was not applied, showed minimal improvement in both sports performance and physical fitness test results. Today's main goal of the pedagogical process is to teach university students to care for their health, engage in regular sports activities, and develop independent physical training skills. Physical culture is an essential part of a person's physical development and overall well-being, encompassing specialized methods, conditions, and achievements that contribute to its advancement.

REFERENCES:

1. Mirziyoyev, Sh. M. (2018). Address of the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, to the Oliy Majlis. Xalq So‘zi, December 23.
2. Shopulatov, A. N. (2023). Improving the Mechanisms for Training Qualified Personnel in the Field of Physical Education and Sports. Doctoral Dissertation (DSc), Pedagogical Sciences. – 76 pages.
3. Mahkamdjanov, K., Salamov, R., Ikromov, I. (2008). Theory and Methodology of Physical Culture. Tashkent: Iqtisod-Moliya. – pp. 14-26.
4. Ro‘ziqulov, B. B. (2023). Predicting the Prospects of Young Football Players Based on Their Anthropogenetic Criteria and Physical Fitness According to Their Playing Positions. PhD Dissertation in Pedagogical Sciences. – 64 pages.

5. Ro‘ziqulov, B. B. (2023). New Approaches to Developing the Physical Culture of University Students. Entrepreneurship and Pedagogy, Scientific-Methodological Journal. ISSN: 2181-2659. 2/2023. pp. 140-146.
6. Xaydarov, B. T. (2009). Enhancing the Performance of Track and Field Athletes Through Training in Mountain Conditions. PhD Dissertation, Tashkent.– 24 pages.
7. Olimov, M. S. (2011). Methodology for Preparing Student Runners for Middle-Distance Competitions. PhD Dissertation, Tashkent. – 24 pages.
8. Nematov, B. I. (2017). Improving the Methodology for Teaching Hurdling Techniques to Students in Youth Sports Schools. PhD Dissertation, Tashkent. – 56 pages.
9. Abdullaev, M. J. (2019). Improving the Methodology for Using Active Games to Increase the Effectiveness of Young Athletes’ Training Sessions. PhD Dissertation in Pedagogical Sciences, Chirchik. – 50 pages.
10. Sherov, Z. T. (2022). A Stratified Approach to Structuring Training Sessions for Short-Distance Running Students. PhD Dissertation in Pedagogical Sciences. – 61 pages.