GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ)
ISSN (E): 2347-6915
Vol. 11, Issue 12, December (2023)

THE FORMATION OF FUNCTIONAL INDICATORS IN THE MANAGEMENT OF THE TRAINING PROCESS OF LONG-DISTANCE RUNNERS AT THE STAGE OF ADVANCED SPECIALIZATION

Sultanov Usman Ibragimovich
p.f.b.f.d.PhD, Supervisor, Kokan State Pedagogical Institute
Department of sports and sports facilities

ABSTRACT

No matter what actions the athlete performs, the size, intensity and quality of these actions (coordination, technique and tactics) are determined by the functional reserve and bioenergetic capabilities of the body. In long-distance running, regular training loads, depending on their specific characteristics, gradually lead to the adaptation of the athletes' body. Since speed-strength endurance is one of the priority qualities in long-distance running, the possibility of achieving high sports results directly depends on the "central" nervous system, respiratory system, cardiovascular structure contraction speed and leg muscle components, which ensure their endurance quality. "Central" and "peripheral" components of quick-power endurance are functionally formed in a specific direction in long jump, middle and long-distance running of athletics (Pavlova O.I., Olimov M.S., Khalmuhamedov R.D.).

In long-distance running athletes, the work capacity, even the sports result, is primarily determined by the functional capacity of the cardiovascular and respiratory organs.

In assessing the physical and functional activity of long-distance runners, YuQS, SQB, DQB, Genche test, NOS, MQIQ, O'TS, PWC170 are reliable information in determining their functional capabilities by using indicators related to work abilities, O2-pulse as diagnostic criteria. (Karpman V.L. and others).

Many scientists agree that physiological indicators are important in assessing the aerobic capacity and endurance of long-distance running athletes. In this regard, the absolute (l/min) and relative (ml/kgm/min) volume of maximum oxygen consumption is especially important.

In the experiment carried out by us, the indicators of functional training of long-distance runners were expressed by specific characteristics (Table 1).

Level of functional performance in long-distance runners (±δ)

№	Physiological indicators	Control group		Experimental group	
		TO	TK	TO	TK
1	Number of heart contractions (UQS, dice/min)	76,9±4,5	75,8±4,1	76,4±4,3	74,1±3,8
2	Systolic blood pressure (SBP, mm.sm.us.)	120,1±4,5	119,9±4,1	120,7±3,9	119,5±3,6
3	Diastolic blood pressure (DBP, mm.cm.us.)	72,2±2,2	71,8±1,9	71,8±2,2	70,5±1,8
4	Holding the breath (Herche snovi, thigh)	20,4±3,8	21,5±3,6	21,7±3,7	22,7±3,2
5	Number of breaths (NOS, m/min)	13,5±1,6	13,9±1,4	13,7±1,4	14,1±1,1
6	Maximum oxygen consumption (MKIQ, ml/min)	2894±196	3017±178	3045±181	3242±188

7	Maximum oxygen consumption (MKIQ, ml/kgm/min)	52,5±4,9	53,1±4,8	52,9±4,6	54,7±4,2
8	Vital capacity of the lungs (HC, ml)	2924±511	3224±459	3279±491	3895±465
9	The relative index of the vital capacity of the lungs (O'TSN, ml/kg)	56,1±4,9	57,8±4,3	58,4±5,4	61,2±4,4
10	PWC170 (kgm/min)	1425±185	1498±178	1478±191	1546±184
11	PWC170 (kgm/min/kg)	22,4±3,4	24,8±3,1	25,3±3,6	26,9±3,2
12	O2 - pulse, ml/cell	9,4±1,8	13,2±1,5	14,4±1,7	16,4±2,1

The functional indicators of 16-18-year-old children running long distances were expressed as follows. According to the number of contractions of the cardiovascular system before training, the average of 16-18-year-old children during the study was 76.9±4.5 beats/min, while the average of 16-18-year-old athletes was 76.4±4.3 was equal to dice/min.

Systolic blood pressure in long-distance runners was 120.1 ± 4.5 mm. was found to be equal. Diastolic pressure was expressed as 68.4±1.8 and 64.2±1.2 mm/s.h., respectively.

It can be seen that the indicators reflecting the functional activity of the cardiovascular system were expressed by specific indicators in long-distance runners. It was found that there is a difference between athletes of the 2nd class and those of the 1st class, and it is evidence that these indicators are better formed in the 1st class compared to the long distance runners of the 2nd class.

Absolute peak oxygen consumption averaged 2894±196 mL/min in 16-18-year-old long-distance runners and 3045±181 mL/min in 16-18-year-old athletes.

With sports that require the quality of endurance, MKIQ is the largest amount. Long-distance runners have 5.0-6.0 L/min (or 80-85 ml/kgm/min), and rowers have a slightly lower figure of 4-4.5 L/min. or 65 ml/kgm/min., while in the participants of the study, 16-18-year-old sportsmen, MKIQ was 2924±511 ml/min. or 52.5±4.9 ml/kg/min, and 3279±491 ml/min in 16-18-year-old athletes. or 58.4±5.4 ml/kg/min was observed.

Many experts and researchers say that the MKIQ indicators show that the functional capacity of long-distance runners can serve as an important integral criterion in predicting sports results.

If the MKIQ indicators observed during our study are compared with the indicators recognized by other authors, it shows that the aerobic work capacity of the long-distance runners participating in this study is not sufficiently formed. According to the data provided by the scientists, the indicators obtained by the Genchi test for holding the breath by taking a deep breath are 20.4 ± 3.8 s in 14-15-year-old middle-distance runners, and 21.7 ± 3.7 s in 15-16-year-old runners. expressed with

According to the given data, it has been shown that in highly skilled athletes, especially those engaged in sports requiring endurance (swimming, rowing, cycling), breath retention can last from 40 to 60-90 seconds.

The ability to take a deep breath and maintain the breath is an indicator that reflects the possibility of "economical use" of the O2-pulse remaining in the body of long-distance runners (lungs, cells, muscle tissues, functional organs), and its formation in long-distance runners is of great practical importance. However, the results of this functional test show that the ability to

maintain breath in long-distance runners is not sufficiently developed. In other words, it indicates that athletes have limited hypoxic capabilities. This has a negative impact on the development of endurance aerobic and anaerobic performance in long-distance runners and does not allow them to achieve high results.

In a study on the frequency of breathing in long-distance runners, this indicator was on average in athletes aged 16-18 years.

It was equal to 13.7±1.4 dice/min. Leading scientists have shown that healthy middle-aged men can breathe in and out 16-20 times a minute. It is known from the researches that regular sportsmen, especially runners of medium, long and ultra-long distances, which require quality of endurance, experience a decrease in the frequency of breathing as a result of running.

In the practice of assessing the functional capacity of the respiratory system, indicators reflecting the vital capacity of the lungs (VFC) are also widely used. 2924±511 ml in 16-18-year-old long-distance runners participating in our study. from the amount, it was expressed up to 3279±491. Such differential expression of OTS in long-distance runners corresponds to the data recognized by other authors. According to the relative indicator of the living capacity of the lungs, it was equal to 58.4±5.4 ml/kg in 16-18-year-old long-distance runners.

From the above-mentioned results and their comparative analysis, it can be noted that although the difference in functional indicators observed in athletes running long distances has a logical essence, the average values of these indicators indicate that the cardiovascular and respiratory systems are not optimally formed in them, or in other words, they are not in accordance with these organs. indicates insufficient "functional reserves".

It is known that in sports practice, especially in those who engage in sports that require high quality of endurance, sports results are largely determined by the functional capabilities of the cardiovascular and respiratory organs. Therefore, the "functional reserve" noted in the runners participating in our study cannot be the basis for high results.

Studying the dynamics of formation of functional training during the annual training cycle shows the need to make necessary changes to the volume or intensity of loads planned for micro-, meso- and macrocycles. In this regard, the priority functional indicators obtained especially at the beginning of the training cycle and during all training cycles, on the one hand, help to determine the effectiveness of the conducted training, on the other hand, can be the basis for optimizing the volume or intensity of loads used in the future, and on the third hand, can be used to predict the sports results in competitions It is possible. The research conducted on long-distance runners in this direction shows that the obtained initial indicators and the dynamics of their changes throughout the year indicate that the cardiovascular and respiratory systems are weak, and in some cases unevenly formed. it allows to manage them effectively, moreover, it is necessary to form their functional systems with the help of tools. We developed and implemented a training methodology aimed at developing the functional readiness of long-distance runners for the above training processes.

REFERENCES

1. Parmonov Akmal Abdupattaevich,. "TECHNOLOGY OF FORMATION OF AKMEOLOGICAL POSITION IN FUTURE TEACHERS." World Bulletin of Social Sciences 5 (2021): 112-115.
2. Parmonov Akmal Abdupattaevich. "Improvement of Akmeological Motivation of Future Physical Education Teacher." European Journal of Research Development and Sustainability 2.12 (2021): 200-202.
3. Parmonov Akmal Abdupattaevich. "Methodological doctrine of the organization of the process of physical education through national traditions." To Secure Your Paper As Per UGC Guidelines We Are Providing A Electronic Bar Code. 1.12 (2021): 45-47.
4. Дехканова М. О., Умарова З. У., Ш. Набиева. "Вертикальная механическая работа в аспекте оценки техники бега." Учёный XXI века 6-2 (19) (2016):16-19.
5. Умарова, Зулхумор Уринбоевна. "Формирование здорового поколения как основная социально-педагогическая проблема. " Исследование инновационного потенциала общества и формирование направлений его стратегического развития. 2014.
6. Umarova Zulxumor Urinbaevna, Umarov Abdusamat Abdumalikovich. "Physical development of youth in preschool education." Asian Journal of Research in Social Sciences and Humanities 12.4 (2022): 405-406.
7. Umarov Abdusamat Abdumalikovich. "TYPES AND METHODS OF NUTRITION OF ATHLETES." Web of Scientist: International Scientific Research Journal 3.9 (2022): 605-610.
8. Umarova Zulxumor Urinbaevna, Rakhimov Shermat Mirzarakhimovich, Kuvvatov Umidjon Tursunovich. "Sports and Great Heroes." Pioneer: Journal of Advanced Research and Scientific Progress 1.4 (2022): 141-143.
9. Умарова Зулхумор Уринбоевна. "ОСОБЕННОСТИ ТАКТИЧЕСКОЙ ПОДГОТОВКИ В СОВРЕМЕННОМ ГАНДБОЛЕ." Актуальные научные исследования в современном мире 6-5 (2020): 159-162.
10. Умарова Зулхимор, И. Одилова. "ОСОБЕННОСТИ ВЫБОРА НАГРУЗОК В НАЧАЛЬНОЙ СПОРТИВНОЙ ПОДГОТОВКИ ЮНЫХ СПОРТСМЕНОВ."
11. В номере (2019): 33.
12. З.У.Умарова, Ш.Эргашев. "АНАЛИЗ ФИЗИЧЕСКИХ ОБРАЗОВАТЕЛЬНЫХ УЧРЕЖДЕНИЙ ДЛЯ ИССЛЕДОВАНИЯ СОСТОЯНИЯ ФИЗИЧЕСКОГО ОБРАЗОВАНИЯ." Актуальные научные исследования в современном мире 5-3 (2018): 166-171.
13. З.Умарова, Ш.Эргашев. "ПЕДАГОГИЧЕСКИЕ ПРОБЛЕМЫ ПРЕПОДАВАТЕЛЕЙ ФИЗИЧЕСКОЙ КУЛЬТУРЫ ПРИ ПОДГОТОВКЕ К ФОРМИРОВАНИЮ У УЧЕНИКОВ НАВЫКОВ ЗДОРОВОГО ОБРАЗА ЖИЗНИ." Актуальные научные исследования в современном мире 5-3 (2018): 159-165.
14. М.О.ДЕХКАНОВА, З.У.УМАРОВА. "ИГРОВЫЕ ТЕХНОЛОГИИ НА УРОКАХ ФИЗИЧЕСКОЙ КУЛЬТУРЫ." БУДУЩЕЕ НАУКИ-2015. 2015.
15. Muydinov Iqbol Abduhamidovich, Muydinov Shuhrat Mansurovich, Akhmedov mid Usmonovich "SELECTION OF TALENTED WRESTLERS AND EDUCATION OF PHYSICAL PERFECTION IN THE PROCESS OF WRESTLING ACTIVITIES IN SPORTS SCHOOLS."Asian Journal of Research in Social Sciences and Humanities (2022): 166-167

16. Saruxanov A. A. "JISMONIY TARBIYA MASHG`ULOTLARIDA KATTA MAKTABGACHA YOSHDAGI BOLALARDA O`YIN MASHQLARIDAN FOYDALANIB CHAQQONLIK VA EPCHILLIKNI RIVOJLANTIRISH." Integration of science, education and practice. Scientific-methodical journal: 3-6 (2022): 56-60.
17. Saruxanov, Arsen Albertovich. "KURASHCHI QIZLARNI TAYORLASHDA IJTIMOIY PSIXOLOGIK HOLATLAR." *Scientific progress* 2.2 (2021): 332-334.
18. Dexqonov Bahodir Burxonovich. "SPIRITUAL TRAINING OF YOUNG ATHLETES." INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429 11.04 (2022): 144-146.
19. Sultanov Usmon Ibragimovich. "METHOD OF CONTROLLING THE TRAINING PROCESS OF LONG-DISTANCE RUNNERS." Eurasian Journal of Academic Research 2.3 (2022): 132-137.
20. Sultanov Usmon Ibragimovich. "DYNAMICS OF MORPHOLOGICAL INDICATORS IN THE PHYSICAL DEVELOPMENT OF LONG-DISTANCE RUNNING." INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429 11.01 (2022): 129-132.
21. Sultanov Usmon Ibragimovich. "DYNAMICS OF FORMATION OF PHYSICAL DEVELOPMENT AND PHYSICAL TRAINING OF LONG DISTANCE RUNNERS." European Journal of Research and Reflection in Educational Sciences Vol 7.6 (2019).
22. Sultanov Usmon Ibragimovich.,"Биатлончиларни мусобақаларга тайёрлашда машғулот юкламалари воситаларининг оптималалштириш." Central Asian Research Journal for Interdisciplinary Studies (CARJIS) 1.4 (2021): 156-163.
23. Irmatov Shavkat Anvarovich, Xamraqulov Tolqin Toxirovich, Quvvatov Umid Tursunovich. "Use problem-solving techniques in school gymnastics."
24. Asian Journal of Research in Social Sciences and Humanities 12-4 (2022): 512-513
25. Гофуров Абдувохид Махмудович. "JISMONIY TARBIYA VA SPORTDA MENEJMENT HAMDA MARKETING PREDMETINING MAQSAD VA VAZIFALARI Jismoniy tarbiya va sport tizimining o'ziga xos xususiyatlari." ИННОВАЦИИ В ПЕДАГОГИКЕ И ПСИХОЛОГИИ 5-4 (2022):
26. Talipdjanov, A. A., Axmedova N. A., ""UzBridge" электрон журнали."
27. O.Mamayusupov. "REQUIREMENTS FOR THE SPORT OF FOOTBALL AND METHODS OF ORGANIZING AND HOLDING FUDBOL COMPETITIONS." INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429 11.09 (2022): 74-76.

28. Jamoliddinov, M., and G. Khudoynazarova. "THE IMAGE OF THE DEAD, BECOME THE MOTTO OF FRIENDSHIP AND BROTHERHOOD IN ABAY'S WORKS." *Galaxy International Interdisciplinary Research Journal* 10.12 (2022): 675-677.
29. Худойназарова, Г. М., and С. Талибжонов. "ОБЩЕЧЕЛОВЕЧЕСКИЕ ЦЕННОСТИ В РАЗВИТИИ ДУХОВНО-НРАВСТВЕННЫХ КАЧЕСТВ МОЛОДЕЖИ." *Экономика и социум* 11-2 (102) (2022): 787-791.

30. Mirxojidinovna, Xudoynazarova Gullola, and Tolibjonov Sardorbek Ravshan o'g'li. "HARAKATLI O'YINLAR HAQIDA TUSHUNCHALAR." *PEDAGOGS jurnali* 29.1 (2023): 21-25.

31. Мирходжиддиновна, Х. Г. "Эффективность кластерного метода в преподавании национальных традиций на уроках физической культуры." *МЕЖДУНАРОДНЫЙ ЖУРНАЛ ДИСКУРСА ОБ ИННОВАЦИЯХ, ИНТЕГРАЦИИ И ОБРАЗОВАНИИ* (2021): 2.

32. Ханкелдиев, Ш. Х., О. Мамаюсупов. "Анализ показателей физической подготовленности юношей среднего школьного возраста." Наука сегодня: реальность и перспективы: (2021): 81.

33. Ahmedova, Hikmatkhon Tursunovna, et al. "The role and importance of the east individual creators in the development of rhetoric subject." *Journal of Positive School Psychology* 6.11 (2022): 290-298.

34. Mirzalieva, D. S. "Principles of formation of the culture of speech of students in the Russian language classes at the university." *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429* 11.12 (2022): 303-305.

35. Mirzaliyeva, D. "UNCONVENTIONAL METHODS OF TEACHING IN RUSSIAN LANGUAGE LESSONS." *ASIA PACIFIC JOURNAL OF MARKETING & MANAGEMENT REVIEW ISSN: 2319-2836 Impact Factor: 7.603* 11.11 (2022): 149-151.

36. Saminovna, Mirzaliyeva Dilfuza, and Makhmudova Dilafruz Solijanovna. "Integrated Approach to Russian Language Lessons." *Academicia Globe* 2.04 (2021): 179-182.