Analysis of the attitude of high school students to innovative types of motor activity in the system of school physical education

Tetiana Bala
Anhelina Petrova

Kharkiv State Academy of Physical Culture, Kharkiv, Ukraine

Purpose: to study the subjective attitude of high school students to innovative types of motor activity in physical education lessons according to the questionnaire.

Material & Methods: theoretical analysis and synthesis of scientific and methodological literature, a survey and methods of mathematical statistics. The study involved 112 students in grades 10–11.

Results: it was revealed that the vast majority of schoolchildren are positive about the introduction of CrossFit into the system of school physical education, since students are dissatisfied with the content of existing physical education lessons, the main reason they note the uniformity of the educational material.

Conclusion: established a positive attitude of senior students of institutions of general secondary education on the introduction of CrossFit as an innovative means of physical education.

Keywords: CrossFit, high school students, system of school physical education, physical education lessons.

Introduction

Today, the problem of increasing the level of physical preparedness and improving the health of adolescents is becoming increasingly important. Leading experts in the field of physical education note that every year indicators of the level of physical health and fitness of students are significantly reduced [1; 2; 6; 8; 9].

A number of authors note that today a physical education lesson provides on average up to 20% of the required weekly physical activity. Therefore, it is important that students develop a sustained interest in physical exercises and sports, motivate them to have a healthy lifestyle [3; 7; 10–13].

It should be noted that young scientists pay special attention to raising children to introduce innovations in the system of school physical education [2; 4; 5]. The use of innovative technologies allows the teacher to diversify the lesson of physical education, to make it more effective, dynamic, emotionally colored, which will contribute to activity in the classroom and a steady interest of students in physical exercises and sports.

Today, CrossFit is one of the "brands" of fitness classes, which is gaining great popularity among modern youth. Its program includes functional exercises in various sports (kettlebell lifting, weightlifting, gymnastics, rowing, athletics, etc.), which are performed with high intensity.

The uniqueness and uniqueness of CrossFit is that there are many variations of a combination of exercises, mainly a power orientation, and each training session is significantly different from the previous one [2].

Purpose of the study: to investigate the subjective attitude of high school students to innovative types of motor activity in physical education lessons according to the questionnaire.

Material and Methods of the research

To identify the attitude of senior students to physical education lessons and the introduction of CrossFit in the system of school physical education, a survey was conducted in secondary schools in the city of Kharkiv, in which 112 students of grades 10–11 took part. In the course of the study, the following methods were used: theoretical analysis and synthesis of scientific and methodological literature, a survey and methods of mathematical statistics.

Results of the research

To achieve the goal, a questionnaire was developed to identify the attitude of high school students of Kharkiv secondary schools to physical education lessons and their modernization through the introduction of innovative tools.

Analyzing the answers of respondents, we found that high school students engage in physical education only twice a week. The results of the survey indicate that 56% of students want to increase the number of lessons per week, 44% of students say that two lessons are enough for them (most girls, namely 53%, said they did not want to increase the number of lessons, but 65% of boys, on the contrary, we would like to increase the number of physical education lessons).

At the same time, we found out that 30% of respondents consider it sufficient to engage in physical education 3 times a week, 27% of students want to attend classes 4 times a week, and only 8% of students expressed a desire to do physical education 5 times or more.

The survey found that the majority of respondents, namely 83%, are happy to attend physical education lessons (Figure 1).
An analysis of the questionnaires showed that the majority of respondents, 71% (73% of girls and 69% of boys) do not agree with the opinion that physical education lessons are necessary only to obtain an assessment and increase the average mark of the certificate, but 29% of respondents agree with the above (Figure 2).

When analyzing the responses of respondents, 87% (88% of girls and 85% of boys) of students were found to consider physical education lessons useful and contributing to better health (Figure 3).

Most of the students surveyed (75%) do not consider physical education lessons useful. However, 25% of respondents say that physical education lessons are useful and effective. An analysis of respondents' answers about the reasons why they consider the lessons to be ineffective showed that 73% of students noted the option "not interesting and monotonous" and 2% of schoolchildren noted the indifferent attitude of teachers to their lessons (Fig. 4).

In the course of the survey, we found that only 27% of respondents were satisfied with physical education lessons, however 73% (68% of girls and 77% of boys) of the respondents noted that they did not like physical education lessons. At the same time, 64% of students say that the monotony of educational material is the reason for dissatisfaction, and 9% of schoolchildren point out the insufficient quantity and variety of equipment (Figure 5–6).

The results of the responses, which reflect the desire of students to change the content of physical education lessons, indicate that the vast majority of students, namely 70%, responded positively, and 30% of respondents said they did not seek changes in the program. At the same time, to the question "What kind of variable modules would you like to exclude?" 18% of respondents noted skiing, 15% indicated gymnastics, 14% expressed a desire to go hiking, 9% – football, 6% – athletics and volleyball, 2% of respondents – basketball (Fig. 7).

The survey revealed that the vast majority of students, namely 94%, believe that today it is fashionable and prestigious to engage in physical exercises and sports. When analyzing the answers to the question about students practicing physical exercises and sports, it turned out that 46% of students additionally engaged in physical exercises and sports. However, 45% of respondents noted the answer – "not always" and only
9% noted the option “no” (Fig. 8–9).

![Fig. 8. Results of respondents’ answers to the question: “Do you think that exercise and sports is fashionable and prestigious among modern youth?”](image1)

![Fig. 9. Answers of the respondents to the question: “Do you do physical exercises and sports in your free time?”](image2)

![Fig. 10. Answers of the respondents to the question: “Indicate which sports, in your opinion, are popular among the youth of Ukraine?”: a) guys; b) girls](image3)

![Fig. 11. Answers to the question: “Indicate what new types of variable modules would you include in the school curriculum for physical education?”: a) guys; b) girls](image4)

![Fig. 12. Answers of the respondents to the question: “Would you like to engage in innovative CrossFit sport in physical education lessons?”](image5)

The main aspect of the questionnaire was to identify the interest of schoolchildren in the use of CrossFit exercises in physical education lessons. An analysis of the responses indicates that the vast majority of students, namely 68%, want to engage in this innovative sport (Fig. 12).

Thus, the analysis of the results of the survey indicates the advisability of introducing into the educational process for the physical education of high school students new, modern types of motor activity.

**Conclusions / Discussion**

As a result of the studies, an unsatisfactory attitude of the majority of students (73%) to the content of physical education lessons was established. The main reason they consider the uniformity of the training material and the lack of sports equipment.

It was determined that a significant number of respondents consider it necessary to introduce new innovative types of motor activity that contribute to the positive attitude of students to physical education lessons.

Based on the analysis of the data obtained, it was found that the majority of students (68%) consider it expedient to include the CrossFit variative module in the system of school physical education, since today it is persistently popular among young people.
Thus, the introduction of CrossFit as an innovation into the system of school physical education is appropriate and relevant, since today it is a sustainable popularity and interest among modern youth. In this regard, the use of crossfit exercises to increase motor activity in the lesson and increase the interest of students in physical education and sports.

**Prospects for further research** in this direction are to study the effectiveness of the implementation of CrossFit in the system of school physical education.

**Conflict of interests.** The authors declare that no conflict of interest.

**Financing sources.** This article didn’t get the financial support from the state, public or commercial organization.

---

**References**

1. Bala, T.M. & Masiak, I.P. (2014), "Dynamics of indices of speed development under the influence of cheerleading exercises", *Visnyk Chernihivskoho nacionalnoho pedatohichnoho universytetu imeni T. H. Shevchenka*, Iss. 118, pp. 14-17. (in Ukr.)
2. Bala, T.M. & Svanadze, A.S. (2016), "General Characteristics and Historical Aspects of Crossfit as a Sport", *Fizychna kultura, sport ta zdorov'ia: stan i perspektivy v umovah suchasnoho ukrainskoho derzhavotvorennia v konteksti 25-richchia Nezalezhnosti Ukrainy*, pp. 20-22. (in Ukr.)
3. Kuzmenko, I.O. (2010), "Changing the level of development of individual coordination abilities of middle school students under the influence of specially directed exercises", *Mołoda sportywna nauka Ukrainy*, Iss. 14, Vol. 2, pp. 124-130. (in Ukr.)
4. Kryvoruchko, N. (2017), "Vplyv vprav chyrlidynhu na fizychnyi stan studentiv vyshchikh navchalnykh zakladiv I-II rivnia akredytatsii: avtoref. dys. kand. nauk z fiz. vykhovannia ta sportu, 24.00.02 – fyzyczne vykłaniania riznykh hrup naselenienia [The influence of cheerleading exercises on the physical condition of students of higher education institutions of I-II level of accreditation: PhD thesis abstract]", Lviv, 17 p. (in Ukr.)
5. Leonenko, A.V. & Krasilov, A.D. (2017), "Application of innovative technologies in physical education of children and youth", *Mołodyi vchenyi*, No. 3 (43.1), pp. 190-193. (in Ukr.)
6. Masiak, I.P., Marmeshyna, M.A. & Zhuk, V.O. (2014), "The state of use of innovative approaches in physical education of regional general educational institutions", *Slobozans’kyi naukovo-sportivnyi visnik*, No. 6(44), pp. 69-72. doi:10.15391/ssnv.2014-6.013. (in Ukr.)
7. Rovnyi, A.S., Ilin, V.M., Lyzohub, V.S. & Rovna, O.O. (2015), *Fiziolohiia sportyvnoi dialnosti* [Physiology of sports activities], KhNADU. (in Ukr.)
8. Shesterova, L.Ye., Kuzmenko, I.O. & Medvedieva, A.L. (2016), "The level of motor readiness of students of grades 7-8", *Aktualni problemy fizychnoho vykhovannia riznykh verst naselenienia*, pp. 221-228. (in Ukr.)
9. Azhypo, O.Iu. & Kryvoruchko, N.V. (2016), "On the issue of increasing the interest of students in physical education", *Ii Vseukrainska naukovo-praktychna konferentsiia "Aktualni problemy fizychnoho vykhovannia riznykh verst naselenienia"* [II All-Ukrainian Scientific and Practical Conference "Actual Problems of Physical Education of Different Populations"], pp. 6-11.
10. Ashanin, V.S., Pasko, V.V., Podoliaka, O.B., Rovnyi, A.S. & Yermolaiev, V.K. (2015), "Improving complex special physical training of athletes, rugby players 16-18 years", *Slobozans’kyi naukovo-sportivnyi visnik*, No. 1(45), pp. 16-22.
11. Bala T.M. (2015), "Change in the level of strength and endurance development of 5-6 grades pupils under cheerleading exercises influence", *Slobozans’kyi naukovo-sportivnyi visnik*, No. 3(47), pp. 14-18. dx.doi.org/10.15391/ssnv.2015-3.003.
12. Martirosyan, A., Pasko, V., Rovnyi, A., Ashanin, V. & Mukha, V. (2017), "An experimental program for physical education of rugby players at the stage of specialized basic training", *Slobozans’kyi naukovo-sportivnyi visnik*, No. 3(59), S.84-91, doi:10.15391/ssnv.2017-3.015.
13. Varmak, O., Galan, Y., Hakman, A., Dotsyuk, L. & Tesliak, Y. (2017), "The use of modern means of health improving fitness during the process of physical education of student youth", *Journal of Physical Education and Sport*, No. 17(3), pp. 1935-1940.

Received: 17.07.2019.
Published: 31.08.2019.

**Information about the Authors**

Tetiana Bala: PhD (Physical Education and Sport); Kharkiv State Academy of Physical Culture: Klochkivska str. 99, Kharkiv, 61058, Ukraine.
ORCID.ORG/0000-0002-5427-6796
E-mail: tanya.bala2206@gmail.com

Anhelina Petrova: Kharkiv State Academy of Physical Culture: Klochkivska str. 99, Kharkiv, 61058, Ukraine.
ORCID.ORG/0000-0001-6400-8624
E-mail: petrovaangelina@ukr.net