

**УНІВЕРСИТЕТ УШИНСЬКОГО  
НАВЧАЛЬНО-НАУКОВИЙ ІНСТИТУТ ФІЗИЧНОЇ  
КУЛЬТУРИ, СПОРТУ ТА РЕАБІЛІТАЦІЇ**

**КАФЕДРА ТЕОРІЇ І МЕТОДИКИ  
ФІЗИЧНОЇ КУЛЬТУРИ ТА  
СПОРТИВНИХ ДИСЦИПЛІН**

**СУЧАСНІ ПРОБЛЕМИ  
ФІЗИЧНОГО ВИХОВАННЯ,  
СПОРТУ ТА ЗДОРОВ'Я ЛЮДИНИ**

**МАТЕРІАЛИ VII МІЖНАРОДНОЇ  
ІНТЕРНЕТ-КОНФЕРЕНЦІЇ  
17-18 жовтня 2023 року**

Одеса  
Букаєв Вадим Вікторович  
2023

**УДК 370.15+371.302.81+613**  
**С916**

*Друкується згідно з рішенням Вченої ради Державного закладу  
“Південноукраїнський національний педагогічний університет  
імені К. Д. Ушинського”*

Протокол № 4 від 26 жовтня 2023 р.

Джуринський П. Б. доктор педагогічних наук, професор – голова оргкомітету;  
Дразіна Є. В. кандидат наук з фізичного виховання та спорту, доцент, завідувач кафедри теорії і методики фізичної культури та спортивних дисциплін Університету Ушинського, заступник – голови оргкомітету;  
Башавець Н. А. доктор педагогічних наук, професор кафедри теорії і методики фізичної культури та спортивних дисциплін Університету Ушинського;  
Р. Урбан, професор, Голова вченої ради Інституту фізичної культури Щецинського університету (Польща);  
М. Крету, професор, факультет фізичного виховання та спорту, Університет Пітешті (Румунія);  
Афтімічук О. Є. доктор педагогічних наук, професор. ДУФВіС (м. Кишинів, Молодова);  
Ігнатенко С. О. кандидат педагогічних наук, доцент кафедри теорії і методики фізичної культури та спортивних дисциплін Університету Ушинського;  
Дроздова К. В. кандидат педагогічних наук.

**Рецензенти:**

**Соколова Ганна Борисівна** – доктор психологічних наук, професор, професор кафедри дефектології та фізичної реабілітації, в. о. директора навчально-наукового інституту фізичної культури, спорту та реабілітації

**Пільова Світлана Георгіївна** - кандидат педагогічних наук, доцент кафедри фізичної культури і спорту, Державного університету інтелектуальних технологій і зв'язку

**Сучасні** проблеми фізичного виховання, спорту та здоров'я людини :  
С916 матеріали VII інтернет-конференції. м. Одеса, 17-18 жовтня 2023 р.  
Одеса. : видавець Букаєв Вадим Вікторович, 2023. 192 с.

У збірнику матеріалів конференції розглянуті всебічні аспекти організації занять з фізичного виховання, спорту і здоров'я людини.

At the conference proceedings are considered comprehensive aspects of physical education and sports.

**УДК 370.15+371.302.81+613.7**

© Державний заклад  
«Південноукраїнський національний педагогічний університет  
імені К. Д. Ушинського», 2023

## Література

1. Буліч Е. Г. Здоров'я людини: Біологічна основа життєдіяльності та рухова активність у її стимуляції. К.: Олімпійська література, 2003. 424 с.
2. Генік С. М. Скарби здоров'я навколо нас. Івано-Франківськ : Нова Зоря, 2002. 680 с.
3. Чайка В. Вінстон Черчілль. Геній влади. К.: ЛОТОС, 2018. 224 с.
4. Фикс, Джим <https://ru.wikipedia.org/wiki/Фикс,Джим>

## USE OF PEDAGOGICAL TESTING INDICATORS IN THE ASSESSMENT OF PHYSICAL AND FUNCTIONAL FITNESS OF JUNIOR SCHOOLCHILDREN IN THE REPUBLIC OF KAZAKHSTAN

Orlov A. I.

Kazakh National Women's Pedagogical University,  
Almaty, Republic of Kazakhstan

**Annotation.** The methods of formation and evaluation of physical development and physical fitness, functional state of cardio-respiratory system of younger pupils of general education school in the ontogenesis of further development are formed. The obtained results can contribute to a more progressive approach of a teacher to the development of basic motor qualities in pupils in the prepubertal period in order to form a healthy younger generation in accordance with the pace of their individual development and level of physical fitness.

**Relevance.** Sport and motor activity every year play an increasingly important role in the functioning of human populations, as well as in the development of society as a whole. An important role in this process is assigned to teachers of physical education, as specialists who are able to instill in the young generation a love of physical culture, standing at the origins of the formation of children and adolescents persistent interest in different types of motor activity, as well as in the future in the professional pedagogical assistance to schoolchildren in choosing the most suitable for the individual sport [4].

The range of problems of training students should include consideration of the level of health and physical abilities, morphofunctional characteristics of school-age children, as well as gender and ethnic differences, with strict compliance of the intensity and direction of pedagogical influences to the laws of age and individual development of young athletes [1].

School-age children nowadays have a rather persistent tendency to a significant decrease in the volume of motor activity, which is caused by a number of factors: 1) the increase of time spent on perception of information, the amount of which is steadily increasing; 2) the need to increase the receipt of a large amount of modern knowledge; 3) modern living conditions, which are negatively affected by the urbanization of modern society.

In this regard, there is a decrease in free time for physical education, which is especially important for primary school students, who have the maximum rate of

growth and development of the body. To eliminate the deficit of motor activity, three times physical education lessons during the school week are considered insufficient, and on this basis the problem of independent physical education of junior schoolchildren becomes obvious [2]. The increased need of children in motor activity can be satisfied by the rational organization of physical exercises not only at school, but also in the family, extracurricular organizations.

In our earlier studies [5] it was noted that the deterioration of schoolchildren's health is associated with their sedentary lifestyle, which directly depends on the low organization of the physical education process at school, and this generally contributes to the formation of deviations in the physical development of adolescents. As a result of such hypokinesia there are chronic school fatigue - deterioration of vision, decrease in the content of red blood cells with the development of anemia, growth retardation, formation of pathology of the musculoskeletal system, deterioration of mental performance. This leads to the fact that in the last decade the vector of physical education focus has changed from "teaching the skills of basic sports" to the priority of health improvement, which is expressed in the desire to more effectively influence the increase of schoolchildren's conditioning capabilities.

Statement of the main material. A pedagogical experiment was used to establish the comparative effectiveness of physical training of pupils in the prepubertal period of ontogenetic development. The first stage of the study was the conducting of a statement experiment to determine the level of physical fitness of junior schoolchildren (all boys), and then the forming experiment using the methodology we proposed. The base for the organization of the study of 18 fourth-graders was educational school No. 69 in Almaty. We studied the indicators of physical fitness of junior schoolchildren in the following positions: physical development (height, weight, Kettle's weight-bearing index), functional state of the respiratory system (Stange test, Henche test) and physical fitness, which gave us the opportunity to assess the level of physical health of pupils, their motor characteristics such as strength, flexibility, speed; the study of coordination abilities, in particular, accuracy, agility, spatial orientation. Statement of the main material. A pedagogical experiment was used to establish the comparative effectiveness of physical training of pupils in the prepubertal period of ontogenetic development. The first stage of the study was the conducting of a statement experiment to determine the level of physical fitness of junior schoolchildren (all boys), and then the forming experiment using the methodology we proposed. The base for the organization of the study of 18 fourth-graders was educational school No. 69 in Almaty. We studied the indicators of physical fitness of junior schoolchildren in the following positions: physical development (height, weight, Kettle's weight-bearing index), functional state of the respiratory system (Stange test, Henche test) and physical fitness, which gave us the opportunity to assess the level of physical health of pupils, their motor characteristics such as strength, flexibility, speed; the study of coordination abilities, in particular, accuracy, agility, spatial orientation.

In connection with the known positive influence of musical accompaniment of physical education classes in school-age children, which helps young students to master the tempo and rhythm, to perform exercises expressively with great tension,

we used this factor in the dynamics of the lesson. When starting to conduct any lesson, the teacher was obliged to know well not only its structure, expressed in a three-part scheme: introductory, main and final parts of the lesson, but also, first of all, the content of the educational program, its requirements, means and methods of implementation of pedagogical tasks set before the lesson [3]. At the same time, the teacher should take into account the state of health and physical development of children, their anatomo-physiological, psychological and individual characteristics, the level of physical fitness, as well as various (climatogeographical and meteorological, sanitary and logistical) conditions of lessons.

As components of the complex developing level of physical fitness of schoolchildren, in the methodology applied by us, in the forming pedagogical experiment we used various methods of training loads, including exercises for the development of strength and endurance, aerobic exercises, yoga and Pilates classes, as well as martial arts classes (Ju-Jitsu school), which carry not only health-improving effect, but also the possibility of self-defense by their own forces in different everyday situations. In the process of searching for ways to improve the current situation to achieve the goals and objectives of our study, an attempt was made to use the provisions of the International "Lesson study" program. The condition necessary for the realization of tasks in the dynamics of training lessons, ensuring the monolithic nature of the training session, the absence of loss of control over the pedagogical process, logically provided for in the lessons, for the whole group of students who participated in the experiment, was the mandatory presence in the dynamics of the lesson of such a factor as continuous variation of the size of training loads.

The testing results showed a low level of physical fitness of junior schoolchildren who are at the early stage of prepubertal period. Comparison of the obtained results of studies of the studied parameters in schoolchildren of other schools in Almaty (Republic of Kazakhstan), as well as theoretically - Ukraine and the sports club of rugby "Asiasport" - confirmed these results. So, for example, in comparison with the data in schoolchildren of similar age in Ukraine, summarized in [3], the value of the Kettle index in Kazakh children, assessed at the stage of the establishing experiment, would be placed within the boundaries of values "below average".

According to the results of the establishing experiment, an intermediate conclusion was made that many children of general education school in the fourth grade, i.e. at the beginning of the prepubertal period, have poorly developed such important physical qualities as agility, flexibility and coordination. The revealed differences in the statistical indicators of the components of fitness required a revision of methodological approaches to the organizational forms of physical education classes.

The complex methodology proposed by us for the forming experiment showed its effectiveness, which was expressed in the improvement of physical fitness indices, in particular, by speed index and speed-strength index, functional state of cardio-respiratory and skeletal-muscular systems, as well as psychological stability of junior schoolchildren.

Thus, at the first stage of this work in the course of pedagogical experiment the theoretical analysis and generalization of practical experience were carried out, which allowed to propose a new approach to the organization and training of physical education teachers aimed at improving the health-improving functions of students, as well as on the preparation of sports reserve among primary school children for Olympic sports. It was also shown that the provisions of the "Lesson study" program widely used in general education school for application in the practice of physical education teacher at school are not adequate in the formation and subsequent assessment of indicators of physical and functional fitness and performance of students who are in the early prepubertal period. This requires much more individualized and flexible approaches and forms of teacher's work in the formation of motor qualities in the younger generation.

### **Literature:**

1. Volkov LV. Theory and methods of children's and youth sports; 2nd edition, revised and supplemented Kyiv, "Education of Ukraine", 2016. 464 c.

2. Doskaraev BM, Syzdykova SZ, Iskakova AD. Comparative analysis of the development of physical education in schools of Kazakhstan and foreign countries. Theory and methods of physical education. 2023;2(72):114-119. doi 10.48114/2306-5540\_2023\_2\_114.

3. The state of physical health of schoolchildren in general secondary education institutions in different conditions of physical education in Ukraine. Sports Bulletin of Prydniprovia. 2022;(1):34-41. doi: 10.32540/2071-1476-2022-1-034 7.

4. Gender differences in the hierarchical structure of value orientations of schoolchildren of different age groups. Physical education, sport and health culture in modern society. 2018;3(43):26-35. <https://doi.org/10.29038/2220-7481-2018-03-26-35>.

5. Orlov Alexander. Problems of regulation of martial arts training for school-age children with poor health. Collection of scientific papers of the II International Scientific and Practical Internet Conference "Modern Problems of Theory and Practice of Physical Education, Sports Disciplines and Tourism": collection of scientific papers on materials. Pereyaslav-Khmelnyskyi, May 16, 2016. Pereyaslav-Khmelnyskyi, Hryhorii Skovoroda State Pedagogical University Publishing House, 2016, Part 2; pp. 67-72.