

- Laureate Diploma in All-Russian competition for the best scientific book – Osipenko E.V. (2017, 2019, Sochi, Russia).
- Diploma of the Laureate in the All-Russian competition of scientific works in the field of physical culture, sports and life safety – Narskin G.I., Usovich V.Yu. (2020, Yelets, Russia).
- Diploma of the 3rd degree at the VIII All-Russian competition of scientific works of students of universities, colleges and young scientists in the field of physical culture, sports and life safety with international participation (Yelets, Russia, 2021).
- Diploma for the best research project implemented in the EE "GSU named after I.I. F. Skaryna" (2014) – research laboratory of Olympic sports.
- Diploma for the best research project implemented in the EE "GSU named after I.I. F. Skaryna" (2015) – research laboratory of Olympic sports.
- Diploma for the best research laboratory operating in the EE "GSU named after I.I. F. Skaryna" (2019, 2022) – research laboratory of Olympic sports.

Honorary scientific knowledge received by members of the scientific school:

- *Narskin Gennady Ivanovich* - Badge of honor "For the development of physical culture and sports in the Republic of Belarus" (1999); Honored Worker of Physical Culture and Sports of the Republic of Belarus (2000); "Excellence in Education" of the Republic of Belarus (2007); medal "For excellent merits in the development of the Olympic movement in the Republic of Belarus" (2008); Badge of Honor "For Merit" of the All-Russian Research Institute of Physical Culture and Sports (Russia, 2009); Honorary Professor of the EE "F. Skorina GSU" (2019). Prepared 7 candidates of sciences.
- *Vrublevsky Evgeny Pavlovich* – Badge of honor "Excellent worker in physical culture and sports" (2000), medal "80 years of the State Committee for Sports of Russia" (2003), Badge of honor "For merits in the development of physical culture and sports" (2005). Prepared 4 candidates of sciences.
- *Barkov Vladislav Alekseevich* – Corresponding Member of the Belarusian Academy of Education (2011); "Excellence in Education" of the Republic of Belarus (2008). Prepared 8 candidates of sciences.

Thus, the scientific school of G.I. Narskin is the main informal structure of science in the field of physical education and sports training in the Gomel region, making a significant contribution to its development.

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E. V. Osipenko, E. D. Mitusova

LIGHT AND ATHLETICS FOR CHILDREN 8–9 YEARS OLD IN LONG DAY GROUPS

The most urgent today is the problem of maintaining health. To be healthy, you need to master the art of preserving and strengthening it. The child is in school during the period of his growth and development, when all his organ systems, the psyche, are being formed. The incidence rate in educational institutions is high: 80% during the year suffer from one or another disease. Influenced by: increased workload, stress, malnutrition, environmental pollution, low physical activity.

This article offers the results of an experimental study that are aimed at resolving the current problem situation. The content of physical culture and health-improving classes with children in extended day groups is given, which contribute to increasing the efficiency of physical education of students of the 1st stage of general secondary education, as well as a significant increase in the level of physical fitness of children.

The younger generation is the reproductive, intellectual, economic, social, political and cultural reserve of society [1–5].

For several decades, the negative dynamics of the indicators of physical health of children and adolescents in the Republic of Belarus has been ascertained. Thus, statistical studies conducted by specialists of healthcare institutions of the Republic of Belarus, and an analysis of the dynamics of the incidence of schoolchildren showed that during the transition from the I (primary) stage of general secondary education to the II (basic) stage, students experience an increase in various kinds of diseases, deterioration in well-being and, as consequently, reduced performance.

Thus, the above data indicate a deterioration in the health status of students with an increase in the level of education: the formation of chronic pathology, a violation of the processes of growth and development, adaptive mechanisms and necessitate the search for cause-and-effect relationships in order to develop and implement preventive measures aimed at strengthening the state health of children and adolescents.

It can be assumed that physical education does not fully solve the tasks assigned to it, especially the group of health-improving tasks, and when organizing it, not all factors and conditions that determine the nature of the physical condition of those involved are taken into account.

It should be added that only the systematic use of physical exercises, taking into account the heterochrony of the development of body systems involved in the correspondence of physical activity to the individual and age capabilities of each child, can expand the functional reserves of life support systems, increase the level of physical fitness and strengthen, in general, the state of health of children.

The foregoing actualizes the need and expediency of a comprehensive study of problematic issues in terms of the content and direction of physical education and health classes for students of the 1st stage of general secondary education, in particular, those involved in extended day groups.

Purpose of the study- to develop and experimentally substantiate a program of additional athletics for children 8-9 years old in extended day groups.

Research objectives: 1) to study the level of physical fitness of students of the 1st stage of education in the city of Dobrush; 2) to develop a methodology for additional athletics classes for children aged 8-9 attending an extended day group; 3) evaluate the effectiveness and implement inwork practice a methodology for additional athletics for children 8-9 years old attending an extended day group.

The tasks set in the work were solved using the following research methods:

- Analysis of scientific and methodological literature and legal documentation.
- Pedagogical observations.
- Pedagogical experiment.
- Control and pedagogical tests (tests).
- Physiological methods (spirometry).
- Methods of mathematical statistics.

Organization of the study. The research was carried out on the basis of secondary school №1 in Dobrush (Republic of Belarus) and included three stages. The educational process was built on the basis of a five-day school week, 3 lessons per week (the duration of one lesson is 60 minutes).

At the first stage, the analysis of scientific and methodological literature and legal documentation on the problem under study was carried out, which determine the relevance, object and subject of the study; goal formulation, task development; selection of adequate research methods.

Second stage was devoted to identifying the level of physical fitness of students of the 1st stage of education attending an extended day group; development of a methodology for physical culture and health-improving classes during a sports hour, organization and conduct of a pedagogical experiment.

At the third stage, mathematical processing of the obtained digital material was carried out, systematization, generalization and analysis of the results of experimental research; design and writing a thesis, as well as the implementation of research results into practice.

Children 8–9 years old of the State Educational Institution “Secondary School No. 1 of Dobrush” took part in the pedagogical experiment, attending the GPA in the amount of 20 people (10 boys and 10 girls). One experimental (EG - n=10) and one control (CG - n=10) groups were formed, which were relatively similar in terms of functional and motor characteristics and, on average, did not differ significantly from each other.

The purpose of the study was to study the physical fitness of junior schoolchildren from individual schools in the city of Dobrush in order to introduce corrective measures in the process of physical education of junior schoolchildren.

Table 1 presents the results of pedagogical testing, in which 180 students of grades 1-2 of the State Educational Institution "Secondary School No. 1", State Educational Institution "Secondary School No. of Dobrush" took part (table 1).

Table 1 – Indicators of the level of physical fitness of students of the 1st stage of general secondary education of the State Educational Institution "Secondary School No. 1 of Dobrush"

Control exercise	1 classes (n=100)	2 classes (n=100)
	Level	
Tilt forward, cm	short	average
Shuttle run 4 × 9 m, s	average	average
Run 30 m, s	below the average	below the average
Standing long jump, cm	short	short
Ball throw, cm	short	short

From Table 1 it follows that the weakly developed physical qualities among students in grades 1-2 are: speed-strength abilities, speed, coordination and flexibility.

We have developed a method of additional athletics lessons for children aged 8–9 years in extended day groups, which contributes to the effective development of physical qualities in children, increasing the level of physical development of students.

Track and field exercises have a versatile effect on the formation of motor skills among those involved, and also do not require special equipment and are easy to perform. As a result of systematic athletics, the body of those involved adapts and adapts to work more economically, acquires a high ability to quickly mobilize its functional capabilities, and, consequently, this leads to an increase in the overall performance of the body and the achievement of the highest results.

In this regard, athletics exercises formed the basis of additional athletics classes for children aged 8–9 years in extended day groups in the author's methodology.

It should be noted that gymnastic exercises were also included in the method of additional athletics for children aged 8-9 years in extended day groups. They have a significant impact on the formation of a versatile developed personality of the student, they are able to develop the general and strength endurance of the muscles of the body, increase the level of physical performance, and educate the conscious attitude of those involved in the state of their health.

Gymnastic exercises strengthen the musculoskeletal system (the volume and strength indicators of muscles increase; the bones of the skeleton become more resistant to physical stress); oxygen supply to the muscles improves, the nervous system strengthens and develops.

Gymnastics classes contribute to the constant formation of new conditioned reflexes, which are fixed and added up in successive rows. The body gains the ability to adapt to more complex loads and perform exercises in a more efficient and economical way to achieve the desired results. The speed of nervous processes increases: the brain learns to respond faster to stimuli and make the right decisions. Improves the work of the heart and blood vessels. The influence of gymnastics on the student's body makes the heart and blood vessels more resilient. Training makes all organs work in intensive mode. During exercise, muscles need increased blood supply, which forces the vessels and heart to pump a larger volume of oxygenated blood per unit of time.

Immunity increases and blood composition improves: the number of red blood cells increases from 5 million in one cubic mm to 6 million, the level of lymphocytes (white blood cells) increases. This is direct evidence that sport strengthens the protective forces – the ability to withstand adverse environmental conditions. Physically active children get sick less often, and if they are attacked by bacteria or viruses, they cope with it much faster.

It should be noted that a significant part of the additional classes athletics for children 8-9 years old in extended day groups in the author's methodology made up a block of outdoor games that are aimed at strengthening the health of those involved, contribute to their proper physical development; contribute to the mastery of vital motor skills and abilities, improvement of motor response, development of speed, agility, strength, endurance, flexibility.

In addition, outdoor games form coordinated, economical and coordinated movements; develop a sense of tempo and rhythm; develop physical culture thinking and motor memory.

The respiratory function attracts special attention of specialists in the field of physical culture and sports, as it is practically the only vegetative function that can be relatively voluntarily regulated. This gives a wide range of opportunities for a targeted impact on the function itself, as well as on other body systems, because oxygen and carbon dioxide are the main constants of the internal environment that regulate the work of the whole organism, primarily the cardiovascular and nervous systems. In addition, of all the links of the respiratory function, it is the only one that can be significantly developed and improved not only during the age development of the body, but also due to urgent and cumulative adaptations to physical loads, depending on their content, direction, volume and intensity.

It is known that an important place in the rehabilitation program belongs to breathing exercises, the action of which is based on the voluntary control of breathing, which, in combination with purposeful muscular activity, serves as a means of increasing the aerobic and anaerobic capabilities of a growing organism, and against this background, the overall improvement of the body. Therefore, we included breathing exercises by A.N. Strelnikova, who focus on the development of the respiratory muscles during inhalation. They are performed in an active, intense, short breath. Exhalation after an active inhalation occurs as if by itself. The most remarkable thing about them is the combination of breathing cycles with body movements, which creates interest in children in classes and initial learning is easy.

In order to determine the effectiveness of the methodology we developed for additional athletics for children 8-9 years old attending the extended day group, we conducted a pedagogical experiment.

It should be noted that at the beginning of the pedagogical experiment, the indicators of the morpho-functional state of students from the EG and CG did not differ statistically significantly ($p>0.05$), which indicates the possibility of conducting a pedagogical experiment and the homogeneity of the samples (Table 2).

Table 2 – Indicators of the morpho-functional state of students of the 1st stage of general secondary education, attending the GPA, at the beginning of the pedagogical experiment

Indicators	KG (n=10) $\bar{X} \pm m$	EG (n=10) $\bar{X} \pm m$	t, p
VC, ml	1202.50±53.78	1316.0±50.12	t=1.54; p>0.05
OGK on inspiration, cm	68.70±0.42	70.40±1.27	t=1.27; p>0.05
OGK on exhalation, cm	64.40±1.23	65.40±1.32	t=0.55; p>0.05
OGK pause, see	63.60±1.21	64.80±1.30	t=0.68; p>0.05
Excursion of the chest, cm	5.60±0.45	5.0±0.45	t=0.94; p>0.05

At the end of the pedagogical experiment, we recorded a reliable ($p<0.05$) change in indicators of lung vital capacity in children from the EG (1448.0±139.59) compared with children from the CG (1310.0±143.22) (Table 3). We assume that these changes occurred due to the purposeful impact of physical activity during sports and recreation activities during the sports hour: breathing exercises, elements of dance aerobics, running exercises, outdoor games.

Table 3 – Indicators of the morpho-functional state of students of the 1st stage of general secondary education attending the GPA at the end of the pedagogical experiment

Indicators	KG (n=10) $\bar{X} \pm m$	EG (n=10) $\bar{X} \pm m$	t, p
VC, ml	1310.0±45.29	1448.0±44.14	t=2.18; p<0.05
OGK on inspiration, cm	69.60±0.37	72.10±1.20	t=2.00; p>0.05
OGK on exhalation, cm	64.90±1.34	66.10±1.43	t=0.61; p>0.05
OGK pause, see	64.10±1.52	65.10±1.37	t=0.49; p>0.05
Excursion of the chest, cm	5.90±0.46	6.10±0.41	t=0.33; p>0.05

Given the above situation, we have developed a methodology for additional athletics for children aged 8-9 who attend the extended day group. The content of this methodology included: general developmental exercises (20%), athletics exercises (40%), gymnastic exercises (15%), dance exercises (15%), breathing exercises (10%). In order to determine the effectiveness of the methodology developed by us for additional athletics for children aged 8-9 attending the extended day group, we conducted an annual pedagogical experiment.

It should be noted that at the beginning of the pedagogical experiment, the indicators of the level of physical fitness of children from the EG and CG attending the GPA did not differ statistically significantly (p>0.05), which indicates the possibility of conducting a pedagogical experiment and the homogeneity of the samples.

At the end of the pedagogical experiment, we recorded a significant (p<0.05) change in most indicators of the level of physical fitness of children from the EG compared with children from the CG (table 4). Thus, statistically significant changes were recorded in children from the EG in the following tests: forward bend (from 2.90±3.53 to 6.44±2.11, respectively; t=2.14, p<0.05); standing long jump (from 119.20±12.55 to 138.70±8.76, respectively; t=2.85; p<0.05); 30 m run (from 6.89±0.42 to 6.2±0.28, respectively; t=2.62; p<0.05); ball throwing (from 7.70±1.42 to 12±2.33, respectively; t=2.14; p<0.05); shuttle run 4×9 m (from 12.45±1.52 to 11.5±0.59, respectively; t=2.63; p<0.05).

Analysis of the data obtained allows us to state the level of physical fitness of students - above average in terms of running 30 m, long jump from a place, leaning forward, shuttle run 4×9 m; the average level of physical fitness in terms of throwing the ball from a place.

At the same time, in children from the CG, we stated a positive dynamic of indicators of the level of physical fitness in the control exercises at the end of the pedagogical experiment, however, no statistically significant differences were found (p>0.05).

Table 4 – The level of physical fitness of students of the 1st stage of general secondary education attending the GPA, at the end of the pedagogical experiment

Control exercises	KG (n=10) $\bar{X} \pm \sigma$	UFP	EG (n=10) $\bar{X} \pm \sigma$	UFP	t, p
Tilt forward, cm	4.12±2.7	Average	6.44±2.11	Above average	t=2.14; p<0.05
Standing long jump, cm	128.00±8.01	Below the average	138.70±8.76	Above average	t=2.85; p<0.05
Run 30 m, s	6.50±0.23	Average	6.2±0.28	Above average	t=2.62; p<0.05
Ball throwing, m	9.69±2.49	Below the average	12±2.33	Average	t=2.14; p<0.05
Shuttle run 4 × 9 m, s	12.2±0.62	Average	11.5±0.59	Above average	t=2.63; p<0.05

Conclusion. When studying the level of physical fitness of students of the 1st stage of education, we stated that the poorly developed physical qualities in children are: speed and speed-strength abilities, as well as explosive qualities and flexibility.

In order to evaluate the effectiveness of the approach proposed by us, a pedagogical experiment was conducted, after which we stated a change in most indicators of the level of physical fitness of children from the EG compared to children from the CG ($p < 0.05$). Thus, we recorded statistically significant changes in the tests: 30 m run ($t=2.62$; $p < 0.05$), standing long jump ($t=2.85$; $p < 0.05$), forward tilt was ($t=2.14$; $p < 0.05$), throwing the ball from the spot ($t=2.14$; $p < 0.05$), shuttle run 4×9 m ($t=2.63$; $p < 0.05$).

Thus, the method of additional athletics lessons developed by us for children aged 8-9 attending the extended day group has shown its effectiveness in increasing the level of physical fitness of students and can be recommended for implementation in educational institutions, youth sports schools and other educational institutions.

List of sources used

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METHODS OF PHYSICAL TRAINING OF STUDENTS INVOLVED IN ARMWRESTLING

In the course of the study, a method of physical training of students involved in arm wrestling was developed and experimentally tested. The use of the developed methodology in the educational and training process of students engaged in armwrestling in the conditions of the university allows