

Methodological Support of the Subject «Physical Education» Based on the Use of the Online Platform Edu.Gounn.Ru

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Abstract: The article deals with the problem of implementation of the educational process in the subject “Physical Culture” on the basis of the use of information technologies and electronic educational environments. The actuality of the study is conditioned by the social reality that requires the educational system in the Russian Federation to increase the intellectual and cultural component at all levels of education and in this regard the use of modern approaches to teaching, including the use of electronic educational space. The goal of the study was to develop methodological support for the subject “Physical Education” based on the use of online platform Edu.gounn.ru. As a result of the study, the existing in the educational space of the country methodological support for the subject “Physical Culture” based on the use of information technologies and digital platforms was analyzed, the level of information competence of teachers in the subject “Physical Culture” was analyzed, methodological support of the educational process in the subject “Physical Culture” based on the use of the educational platform Edu.gounn.ru was developed.


1 INTRODUCTION


The relevance of the study is conditioned by the social reality that requires the educational system in the Russian Federation to increase the intellectual and cultural component at all levels of education (Bystritskaya, Burkhanova, Ivanova, Stafeyeva, Zhemchug, 2018; Danilova, 2022). The need to include information technologies in the educational process of general education institutions is undeniable and requires from a modern teacher special competencies necessary not only for communication with students, but also for digital support of the educational process, development of e-courses and use of artificial intelligence capabilities in teaching various subject areas of science (Grunt, Belyaeva, Lissitsa, 2020; Karpova, Kudinova, 2021; Kuznetsov, Nikitina, 2020). An important place in


modern education is given to distance technologies and learning formats, which allows students to form the ability to self-education and self-learning, which will further allow them to demonstrate their skills in the market of educational services. However, the use of distance forms of education requires from the teacher a qualitative transition from traditional to new ways of knowledge reproduction not only from the side of learning, but also from the side of information perception (Karpova, Kudinova, 2021; Plotnikov, 2021; Umarov, 2020). At present, the Russian education system widely uses distance learning and the use of e-learning environments (hereinafter referred to as ELE). On the educational portals of the Ministry of Education for use in the educational process of schools are widely presented electronic courses in the disciplines of humanities and natural sciences. Also, scientific libraries offer electronic editions on external memory carriers, audio

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educational-information materials, video educational-information materials, which allow to optimize the learning process and offer the student as much information as possible in a particular scientific field.

Our analysis of methodological literature, electronic educational environments of educational institutions, educational portals recommended by the Ministry of Education has allowed us to conclude that the subject “Physical Education” is least equipped with digital methodological support of the curriculum, which allows to fully implement the teaching of the discipline in a distance format (Danilova, 2022; Kosmina, Kichaikina, Chukin, 2021; Udalov, 2003; Zakharova, 2019). Despite the widespread use of digital platforms by educational institutions, physical education teachers have difficulties with the development of e-learning courses, automated assessment systems and other components necessary to ensure a quality modern educational process. All the above-mentioned served as a basis for setting the research goal, which is to develop methodological support for the subject “Physical Education” based on the use of the online platform Edu.gounn.ru.

To reach the goal, the following tasks were solved: to analyze the existing methodological support for the subject “Physical Culture” based on the use of information technologies and EOS; to study and analyze the level of information competence of teachers in the subject “Physical Culture”, necessary for training both in face-to-face and distance learning; to develop methodological support for the educational process in the subject “Physical Culture” based on the educational platform Edu.gounn.ru.

2 METHODOLOGY AND METHODS

Theoretical and methodological basis for the development of methodological support of the educational process in the subject “Physical Education” was formed by: scientific and methodological works on the problems of informatization of general education and computer technologies for teaching physics (G.A. Bordovsky, E.I. Butikov, E.V. Bursian, H. Gould, V.A. Izvozchikov, A.S. Kondratiev, A.A. Kuznetsov, V.V. Laptev, etc.), distance learning in education using information and communication technologies of education (A.A. Andreev, A.A. Akhayan, E.S. Polat, I.B. Gotskaya), achievements in the theory and

practice of distance education in physical education (V.D. Syachin, G.H. Murtazina, V.A. Chistyakov); synthesis and generalization, questionnaire, projecting.

3 RESEARCH RESULTS

The analysis of methodological literature of the problems of using digital technologies in the educational process of schools in the subject “Physical Education” allowed to conclude that information technologies in the educational process of general educational institutions are not fully used, which is explained by teachers as a lack of time and insufficient information competencies to actively use all the possibilities of the electronic environment in both face-to-face and distance learning formats. Despite this, many physical education teachers confirm the importance of using information technologies in the teaching process and their impact on increasing students' motivation for educational activities and improving the quality of educational services in the modern world (Frumin, Vasiliev, 2005; Mikhalti, 2022; Perevoshchikova, Stafeeva, Frolova, Chepurnova, Elizarova, 2023).

The purpose of the survey was to obtain relevant information about the information competence of students and physical education teachers in general education institutions of Nizhny Novgorod region. Within the framework of the survey the following tasks were solved:

- collecting information about EERs in an educational institution;
- identification of difficulties in the use of information technologies by physical education teachers;
- the need to develop methodological support in EERs in the subject “Physical Culture”.

The survey of physical education teachers was carried out using specially developed questionnaires during the first half of the 2022/2023 academic year. A total of 20 physical education teachers from Nizhny Novgorod and the Nizhny Novgorod region, with the first and highest category, aged 29-56 years and an average of 10-15 years of total work experience, took part in the survey. Based on the survey results, it can be concluded that 15% of teachers rarely use electronic teaching materials, 35% of teachers use these tools as needed, 28% of respondents resort to this action from time to time, only a few of the teachers, namely 10% often use electronic teaching materials in their work and only 12% use these resources in open lessons. The most popular online

resources among physical education teachers in the Nizhny Novgorod region are educational platforms: zoom, which is used by 25% of teachers, Edu.gounn.ru – 35% of teachers, Yaklass – 10% of teachers, Russian Electronic School – 15%, Skype – 8%, Yandex.Textbook – 5%, and Internet-lesson – 2%. 25% of physical education teachers do not use information technologies in the teaching process at all, and 10% of teachers prefer another educational platform. Edu.gounn.ru platform is used by 67% of physical education teachers as an interaction with parents, students, colleagues and administration, 20% of respondents conduct online lessons, 15% - check homework, 10% conduct attendance monitoring and 65% of all surveyed teachers work with the class journal. Thus, the results of the survey allow us to conclude that 85% of physical education teachers noted the importance of creating this system to improve the educational process and are ready to use it in the educational process.

The study analyzed the information environment and architecture of the Edu.gounn.ru platform, which is currently actively used in schools in Nizhny Novgorod Region. This electronic journal has many functional capabilities. The following sections are available on the main page of the Edu.gounn.ru platform: 1. Journal, 2. Teacher's ARM, 3. Tests, 4. Portfolio, 5. Timetable. Let us briefly characterize each of the sections. Section 1. "Diary" consists of several tabs. The "Notes" tab is the main page and allows you to mark current and final grades, write down homework and lesson topic, write remarks in the diary. The "Lessons" tab contains lesson topics and homework. On this page a teacher can attach a calendar-thematic plan and choose from the list of textbooks used for any particular subject. It is possible to attach a file (document, table, picture, presentation, video) to a lesson and homework. Section 2: Teacher's ARM. includes the "Online lessons" tab, which allows for distance learning: to conduct online lessons on this platform, make tests electronically, store class files, access to the library and media library of ready-made teaching materials. Section 3. Tests. allows the teacher to create test tasks to assess knowledge in their subject, offer it to the class or selectively to individual students, check the results of the test by the student. The teacher can check the test both manually and automatically. Based on the results of the check, the number of points scored, percentages, and the student's grade are displayed. Thus, the use of the digital information and educational environment Edu.gounn.ru in a comprehensive school provides the following advantages:

- the efficiency and quality of education increases;
- open access to the most modern educational resources is provided;
- the use of a digital educational environment using distance learning technologies is highly effective and necessary in modern realities.

Using this platform, it becomes possible to contribute to the achievement of the main goal - improving the quality and efficiency of education, increasing the accessibility of education, meeting the needs of the harmonious development of the individual and the information society as a whole. The next task of the study was the development of methodological support for the subject "Physical Education" on the information and educational platform Edu.gounn.ru. Here is an example of the logic of development and presentation of educational material on the platform Edu.gounn.ru. We developed 21 lessons in the second quarter using electronic information technologies on the basis of the Edu.gounn.ru platform. The subject matter of the lessons corresponded to the working program and calendar-thematic plan for physical education for 6th grade students.

The content of sections and topics (thematic planning) for the second quarter is based on the program of M.Y. Vilensky and V.I. Lyakh (2021). At the first stage on the site Edu.gounn.ru was carried out the development of the calendar and thematic plan for the subject "Physical Education" in the section "Journal" - "Lessons" for the second quarter in the section "Gymnastics with the basics of acrobatics" in the number of 21 lessons. The title of topics, numbering and homework are structured according to the thematic planning.

At the second stage we have developed twenty-one "Lesson worksheets" in which the plan of work on the theme of the lesson is prescribed. The worksheet allows us to organize productive independent work of students with educational material outside of school, is a great means of getting feedback. The worksheet includes tasks on the sections of thematic planning, such as: sports and recreational activities, physical training and homework. The section "Sports and recreational activities" included the section "Gymnastics with the basics of acrobatics" with training of organizing commands and techniques, acrobatic exercises and combinations. The tasks planned in this section were divided into 4 stages of training, which correspond to the educational objectives of the lesson (U-Teach, PU-Continue to teach, Z-Strengthen, K-Control).

An example of a lesson worksheet is shown in figure 1.

<p>Worksheet of lesson No. 29 for 6th grade students Theme: Conducting independent lessons of applied physical training.</p>	
<p>Dear pupils! Familiarize yourself with the proposed materials and assignments and complete them. I wish you successful mastering of the material!</p>	
<p>Lesson progress</p>	
<p>1. Viewing the video clip https://www.youtube.com/watch?v=wepMYM6mUXw&ab_channel=OmFTY</p>	
<p>2. Task: write out the main definitions and terms on the topic.</p>	
<p>3. The material you have written down (photo, screenshot, document), attach it in a personal letter to the physical education teacher.</p>	
<p>4. Homework: jumping rope 2 minutes, 3 approaches.</p>	
<p>Feedback</p>	
<p>1For additional advice from the teacher, ask questions via e-diary (list the main problems and difficulties you are experiencing during the lesson)</p>	

Figure 1: Example worksheet for lesson 29 for 6th graders.

In the “Teach” section, a link to a video on the relevant topic of the lesson, in which visual and verbal teaching methods were used, is attached. In this way, the student has the opportunity to familiarize himself with the technique of the exercise. After watching the video, the student is asked to write down the mastered material on the topic and send it to the teacher in the electronic logbook.

In the “Continue to teach” section, a presentation on the relevant topic of the lesson is attached. Slide presentations were used as an explanatory-illustrative teaching method. After reading the presentation, the learner is asked to write down the material and send it to the teacher for checking. In the item “To consolidate” the student is asked to perform a case task, in which it is necessary to solve educational problems and describe the technique of exercises by phases, to select the preparatory and underlying exercises, etc. (this task

allows the student to solve educational problems and describe the technique of exercises by phases, to select preparatory and underlying exercises, etc.).

In the “Control” section a link to testing in the electronic journal Edu.gounn.ru is attached. The students are offered to take a test on the corresponding topic of the lesson to assess theoretical knowledge. Sections “Physical training” and “Homework” include tasks with the performance of physical exercises with a certain load, which are prescribed in the thematic planning. In order to control the fulfillment of tasks, students are invited to send a video recording of these exercises to personal messages in the electronic journal. All worksheets, presentations and video files are attached on the Edu.gounn.ru platform according to the topics of the lessons. Homework assignments are prescribed in the e-journal section. (Figure 2).

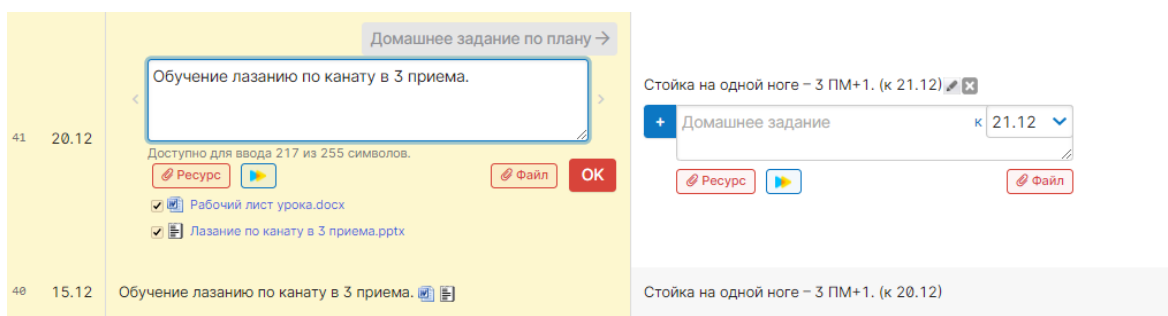


Figure 2: Attached files with homework on the Edu.gounn.ru platform.

Tests are also compiled electronically in the journal. After the student passes the test, the test is checked automatically and the test results show the number of points scored, percentages, and the student's grade.

3 DISCUSSION OF THE RESULTS

The developed methodological support of the subject "Physical Education" on the platform Edu.gounn.ru and its fragment proposed in the article can be used both in the mixed format of learning and distance learning. In the process of blended learning combines traditional forms of learning with elements of e-learning, which uses special information technologies such as computer graphics, audio and video, interactive elements, etc. In this form of learning, the student performs tasks only from the sections of sports and recreational activities and homework, because the passage of the section "Physical training" is carried out in the course of the lesson. Control over the assimilation of knowledge and skills is carried out on the basis of the average score of the received grades for the performance of exercises in practical training, tests and case-task. Blended learning format allows to provide a more complete assimilation of educational material by students, the teacher to effectively organize the control and accounting of knowledge, and also solves the problems of searching and storing information.

Traditional forms of training are not used in the process of distance learning. Students master the educational material by sections: sports and recreational activities, physical training, homework, which contribute to the solution of educational, educational, health-improving tasks of the lesson. The control of learning progress is carried out on the basis of the average score of the received marks for testing and case task.

The example methodological support for the subject "Physical Education" with the use of information technology on the platform Edu.gounn.ru is universal and can be used in various forms of teaching. The use of information technologies in the educational process provides a more complete assimilation of educational material on the subject, high cognitive activity of students, individualization of learning, development of creativity in the performance of educational tasks. Electronic educational resources can be considered as a new way of knowledge transfer, which corresponds to a qualitatively new content of learning and development of the learner.

4 CONCLUSIONS

As a result of the analysis of scientific and methodological literature it was revealed that currently there are difficulties related to organizational, material and technical, scientific and methodological aspects of the development and implementation of modern information technologies in general physical education. The need to use information technologies in physical education is caused by the need to improve its quality through the use of computers. The use of information technologies allows to organize the educational process at a new, higher level, to provide a more complete assimilation of educational material.

As a result of questioning, it was revealed that teachers' information competence is not at a sufficient level. 65% of teachers know how but do not use information and communication technologies in their work activities, 10% do not know how and do not use information technology tools in class and extracurricular activities. The results of the survey of physical education teachers necessitate the development of methodological support for the subject "Physical Education" in the electronic

educational environment. In the survey on the need to develop methodological support for the subject “Physical Education” in the EES 85% of teachers noted the importance of creating this environment to improve the educational process and the possibility of independent mastering of educational material.

As a result of the study a methodological support for the subject “Physical Education” for 6th grade students based on the use of the online platform Edu.gounn.ru was developed. The methodological support contains: calendar and thematic planning for physical education for 6th grades for the 2nd quarter section “Gymnastics with the basics of acrobatics” (M.Y. Vilensky, V.I. Lyakh), presented on the platform Edu.gounn.ru in the section “Journal” - “Lessons”. Twenty-one (according to the number of lessons in a quarter) “Lesson worksheets” were developed, in which the teaching material and tasks are presented in accordance with the educational program for the subject “Physical Education” and carried out according to the sections of thematic planning (sports and recreational activities, physical training, homework). In accordance with the topics of the lessons, media files are selected and attached to the course, allowing to master and consolidate the educational material on the subject.

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