



The use of digital materials in physical education lessons for students assigned to a special medical group

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Abstract

Objective of the study is aimed at studying the potential and methods of using IT in the process of organizing physical education lessons for students assigned to a special medical group.

Methods and structure of the study. Methodology and organization of the research. Initially, a review of scientific publications and pedagogical practices related to the formats and types of educational activities of SMG students, as well as information technology tools that can be effectively integrated into physical education classes, was carried out. Then a sociological survey was conducted among 235 students of the St. Petersburg branch of the RANEPa aged from 18 to 24 years.

Results and conclusions. Results and conclusion. It has been established that the introduction of information technologies into the educational process of SMG students makes it possible to combine and combine various types of activities, such as information and educational, recreational and the creation of digital material. During the classes, knowledge, skills and abilities from the field of IT and physical education and sports are integrated, where, in addition to mastering theoretical knowledge, students gain skills in creating digital content, developing training plans and performing sets of exercises aimed at developing physical fitness and maintaining a healthy lifestyle.

Keywords: *information technology, physical education classes, students of a special medical group, educational activities, sociological survey, knowledge integration, information and cognitive activities, recreational activities, digital content creation.*

Introduction. Today, the use of information technologies in the educational and training process is an important aspect of life in the modern world and it is necessary to learn how to understand the specifics of their application right now. Currently, the problem of using innovative information technologies to involve and increase motivation of students of a special medical group for physical education classes is becoming relevant in educational practice [1].

Objective of the study is to evaluate the possibilities and ways of using information technology in organizing physical education classes for students of a special medical group.

Methods and structure of the study. At the first stage of the work, the analysis of scientific content,

pedagogical experience devoted to the forms and types of educational activities of students of a special medical group, and information technology tools that could be successfully implemented in physical education classes was carried out. At the second stage, a sociological survey was conducted among 235 students of RANHiGS St. Petersburg aged 18 to 24 years.

Results and conclusions. The analysis of information sources allowed us to identify the types of educational activities that can be carried out by students of a special medical group and taken into account when drawing up a lesson program for them:

- Information and cognitive activities, in which students gain knowledge about the benefits of physical education, the specifics of organizing classes,



and ways to interact with equipment. The results of knowledge acquisition are presented in the form of reports, abstracts and scientific articles. Along with this, students themselves can become compilers of physical activity programs that are designed for both regular health groups and other students with disabilities [2].

- Health-improving physical education, which provides for an optimal motor regime and individualization of physical activity of students, taking into account gender, health status, etc. This type of activity provides for the creation of a common system of health-improving exercises, the use of dance techniques and techniques of psychological immersion.

- Development and use of digital content in the following areas: - creation of videos, presentations, mobile applications with a set of exercises and speech accompaniment. - designing online courses with information about a healthy lifestyle. - gamification of classes can be implemented in the form of a combination of computer and real forms of gaming activities aimed at increasing the interactivity of learning, as well as developing the physical qualities of students.

The survey results showed that 38% of the total number of respondents are students who attend a special medical group, 3% of students are completely exempt from physical education classes. According to the responses received, students of the special medi-

Table 1. Survey on students' interest in using virtual reality technologies in education

In which group do you practice physical education?	In the main one – 62%	In special medical – 35%	Completely exempt from physical education for health reasons - 3%
Which physical education classes are the most interesting for you?	Exercises and work-outs – 24%	Digital content Development – 40%	Writing essays, exercise programs – 36%
Do you know what (virtual reality) VR technologies are?	Yes – 72%	No – 28%	
Would physical education classes be more interesting for you if VR technologies were used in their process?	Yes – 43%	I find it difficult to answer – 24%	No – 33%

Table 2. Advantages and disadvantages of using information technologies in organizing physical education classes with students of a special medical group

Information technology-related activities	Goal	Dignities	Disadvantages
Video tutorials posted on on-line platforms for students to familiarize themselves with	The opportunity to introduce safety and exercise techniques	1. Greater visibility 2. The interactive form allows students to memorize information better	1. The theory of the information received 2. The inability to check the technique of performing exercises in the process if the video tutorial involves repeating exercises
The use of information technology for conducting tests and informing students	Increasing knowledge about the role of physical education and sports and proper techniques	The opportunity to objectively and easily assess students' knowledge	The opportunity to objectively and easily assess students' knowledge
Using VR and AR technologies to gamify the training process	Increasing students' motivation	1. Increase motivation 2. An interactive form that allows you to engage in basic exercises	1. The high cost of these technologies
Measurement of students' biometric indicators using information technology	Monitoring of students' results and physical condition	The opportunity to make classes as effective and safe as possible when it comes to students with disabilities	The high cost and unavailability of the technologies we are interested in
Using information technology to create information lessons and presentations	Increasing motivation by considering the effect of sports on the body	Increasing motivation to play sports	The theoretical nature of the tasks performed, which makes it impossible to show the correct technique of the exercises being studied



cal group prefer classes in which they develop digital content with sets of exercises or courses on physical culture and sports (40% of respondents).

At the same time, students are interested in VR and AR technologies and their capabilities, which they provide to increase physical activity (Table. 1).

Based on the results of the theoretical analysis and survey, the advantages and disadvantages of using information technologies in organizing physical education classes in a special medical group were identified (Table 2).

Conclusions. The use of information technology in classes with students of a special medical group provides an opportunity, along with gaining theoretical knowledge in the field of physical education and sports, to acquire skills in developing and applying digital content, designing and performing sets of exer-

cises aimed at developing physical qualities and maintaining a healthy lifestyle. An effective form of physical education classes for students who have certain health limitations is a hybrid format, when classes are held remotely or in the gym, under the supervision of a coach.

References

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