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INTERNET TECHNOLOGIES AS a MEANS OF IMPROVING THE QUALITY OF INDEPENDENT WORK

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ABSTRACT

In this work, the tasks of the state program for improving the quality of education and improving scientific research in the field of physics are indicated. The possibilities of Internet technology in teaching the physics corresponding to this program are indicated, the ways and means of improving the quality of self-education are given, and the website address and its possibilities for students of technical universities in the physics course created by the author in the Karakalpak language are given.

KEYWORDS

Internet technology, physical discipline, virtual laboratory work, computer technology, learning technology.

INTRODUCTION

The pace of development of technics, technology and the standard of living of today's society sets serious requirements for educational institutions whose activities are aimed at training and retraining

personnel, implying the quality of knowledge, competence, creativity, sociability, mobility and professionalism in their activities.

Taking into account these factors, the President of our state signed a decree on measures to improve the



quality of education and scientific research in the field of physics. According to this resolution, a program of comprehensive measures for 2021-2023 was approved, the main tasks of which are:

- * The improvement of the quality of teaching the physics in schools, the textbooks and teaching aids;
- * The development of a system of training, retraining and advanced training of personnel in the field of physics, in particular school teachers in rural areas;
- * The widespread introduction of ICT into the educational process;
- expanding the level of coverage of young people in teaching physics, training personnel in new specialties that are in demand on the education market;
- * ensuring the inseparable connection between the scientific research in the field of physics with production [1].

According to this program, it is planned to introduce information and communication technologies (ICT) into the education system, ensuring the improvement of the quality of education and the effectiveness of scientific research. As you know, today the educational space is changing due to the new stage of informatization, the modern information and communication technologies and information provided by the Internet are widely used in the educational institutions.

With the help of the Internet, it will be possible to conduct classes in a new form of teaching: virtual excursions, travel, laboratory work, seminars and additional classes. Regardless of distance and time, the Internet can meet the needs of people of any age, profession in obtaining new knowledge. Due to the

principle of Internet accessibility, its resources are constantly updated and replenished [2,3].

Physics is one of the basic natural sciences in the education system. It allows you to form a holistic picture of the world by studying the laws of nature and processes, from the simplest to the most generalized structural elements of the universe. For the socio-economic development of society, the sphere of education and, in particular, its structural element, such as physical discipline, should be constantly developed from an innovative point of view, which can be achieved by the capabilities of the Internet [4].

Materials and methods

Great opportunities are contained in the use of Internet technologies, electronic applications and other software packages in teaching a physics course, since it is not difficult to illustrate invisible processes, phenomena and patterns using multimedia applications. Namely, through the Internet we can exchange all the features of electronic applications.

The possibilities of Internet technologies in the study of physics include the following components: computer training programs (virtual, simulation laboratory work); training systems based on multimedia technologies; telecommunications (video lectures); electronic libraries, etc.

Distance learning using the Internet has the following advantages:

- The barriers of time and space that prevent access to education for so many people are being eliminated;
- The learners can greatly shape their education to meet their own needs;

- The distance learning can be carried out in free time, with full use of it, and the learners can reduce or lengthen the training time depending on the need;
- The travel and accommodation costs are excluded;
- The institutions offering distance learning are required to ensure a high organizational and methodological level due to the lack of "regionalization";
- The distance learning is a suitable form of education for people with difficult access to traditional education: those living in small towns and villages, as well as those with physical disabilities;
- The learning process takes place with the secrecy of the students, which leads to an individual and stress-free lesson.

The material presented using Internet technology must be strictly dosed, as excessive use of these tools can kill the effect of novelty and strangeness. In this situation, the main task of the teacher is to plan and organize his actions in such a way that students show interest in forms of work involving the use of Internet technologies for the longest possible period of time.

RESULT AND DISCUSSION

The use of the Internet in distance learning allows both synchronous and asynchronous methods to be applied simultaneously. One of the popular tools in the synchronous process is chat on the Internet. It can be used to contact with the teacher during the lectures or seminars. This way they can ask questions, comment. This Internet tool is also perfect for conducting the discussions between the students.

We have created an Internet site at the moment (<https://baymuratov.uz>) for the students of technical

universities in the Karakalpak language. When working on the creation of a personal website, we identified the following stages: defining the goals and objectives of the website, analyzing existing educational websites in various disciplines; identifying potential limitations and reactions to the use of various technologies; preparing the content of the website and its physical design; directly creating the structure of the website and its subsequent filling with information materials; testing the website for the loading speed, ease of use, correct operation of links, stylistic and spelling correctness; placing the website on the Internet and informing the target audience about its availability, timely support of the website; adjusting the structure and content as necessary.

At the moment, the site is being finalized, and in the future we plan to include all materials on the standard curriculum for the physics course, i.e. lectures, practical, laboratory work, videos, video classes, topics and literature on independent work, new information data and new information materials in the field of physics.

In technical universities, the physics is one of the basic academic disciplines due to its fundamental nature and applied significance. And the website created by us expands the possibilities of independent work of students of the technical direction and is a convenient application when performing independent work.

We believe that it is Internet technologies that can help a teacher to organize independent work of students, develop their skills of independent activity, which will contribute to a better assimilation of theoretical material and its application in practice and ultimately lead to an increase in the effectiveness of higher education, and also lays the foundation for scientific research works.

From our point of view, the main condition for the success of using a personal website of a physics teacher in the educational process is clearly derived content, which may include the following modules: personal-informational, educational-informational and communicative-informational.

It is these privileges that are currently used by the university students. Since the current situation with coronavirus in our country requires distance learning. Through Internet technology, classes are organized, seminars are held, practical work is carried out, and virtual laboratory work is performed. Not only the organization and conduct of classes are carried out remotely, but also international, republican conferences, meetings, master classes and webinars are organized using the Internet network.

CONCLUSION

Thus, the modern system of learning tools allows you to engage in the learning process individually, in creative groups, outside the classroom and in classrooms. It allows both the student and the teacher to search and collect new information, analyze them, sort them, and assimilate. With the help of Internet technology, the teacher easily develops and creates convenient, understandable modern teaching tools.

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