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THE USE OF INNOVATIVE TECHNOLOGIES IN PHYSICS LESSONS

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ABSTRACT

Today's modern world encourages us to look at every detail of education in a modern way. In addition to teaching each subject in a way that integrates modern innovative technologies, it is one of the most pressing issues today. This article describes in detail the importance of physics in the world community and the use of innovative technologies in teaching this subject to students.

Keywords: technology, innovation, physics, pedagogical technologies, teaching methodology, traditional education, etc.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

The science of physics helps us understand the world around us, not just the world, the way technology works as a whole. Also, Physics helps us regulate the universe. He deals with the basics and helps to see the connection between dissimilar phenomena. Physics gives us powerful directions that help us express creativity, see the world in a new way, and then change it. Physics provides the quantitative and analytical skills necessary to analyze information and solve problems in science, engineering and medicine, as well as in Economics, Finance, Management, Law and public policy. Physics is the basis of the most modern technologies and is the basis for instruments and instruments used in scientific, engineering and medical research and development. Physics-based technologies predominate in production.

Each lesson should be different from another lesson, perfect compared to the Class night that is being taught today. New pedagogical technologies of the lesson:

─ using information tools;

─ with the help of visual aids; ─ through the use of interactive techniques; and if we organize using judges, this lesson will well reach the reader's mind and take a place in his memory. The student's scientific worldview expands, and the level of knowledge increases. The purpose of organizing modern education, different from traditional education, is to achieve high results in a short time, without spending too much mental and physical effort. The delivery of certain theoretical knowledge to students in a short time, the formation of skills and abilities on certain activities in them, as well as the

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control of the activities, knowledge of students, the assessment of their knowledge, skills and abilities require a teacher of physical science to have great pedagogical skills and a new approach to the educational process. Currently, in many developed countries of the world, a lot of experience has been accumulated in the application of new pedagogical technologies that increase the scientific activity, creativity of students and, at the same time, guarantee the effectiveness of the educational and educational process. The methods that form the basis of this experiment are called interactive methods, and the ability to apply these techniques to the course process is a high task assigned to the physics teacher of today. The successful design of pedagogical technology and the guarantee of the final result (samara)depend on the degree to which the teacher understands the essence of didactic issues and is able to correctly assess them in the lesson. The definition of the specific goal of education in each lesson is considered one of the most important conditions in the design of teaching technology. In this case, the diagnostic purpose of teaching on subject topics is determined.

Since the time when physics as a science has been passed, the database of science has been increasing in size, and it is getting richer year by year at high speed. Therefore, in the process of passing physics, it is necessary to select only the necessary information and bring the volume of information to a quantitative size in accordance with the student's mastering abilities. In the educational system, multimedia electronic educational literature, lectures are virtual laboratory work, various animated programs are special programs that will be needed when creating slides. The educational system has ready-made models in the programs presented above, in which the user can widely use several series of works (animations in the analysis of laboratory, fire safety issues, presentation lectures) by entering the initial parameters. Examples of programs that allow modeling physical processes are: MatCad, MatLab, Maple, Crocodile, Physics, Electronics Workbench and other software packages. The use of computer models in educational processes using the capabilities of Information Technology pays off.

For computer modeling of physical processes, physical knowledge is widely used in Information Technology. Also, the Special important aspects of modeling are that it is not necessary to prepare various instruments, it will be possible to describe phenomena in a vivid and natural way, to repeat the experience at any time in a small opportunity, to be able to demonstrate even processes that are difficult to observe and that cannot be observed at all. The training performed by applying a computer program will give a better effect than simple training. Using computer programs in teaching physics, conducting animated classes provides a good effect on understanding the mechanisms and stages of the occurrence of physical processes, creating comfort for the teacher and listener. Demonstrating the mechanisms of physical processes, their presentation in lectures, practical and especially experimental classes, and carrying out these situations on the basis of computer technology, are factors that increase the efficiency of

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providing knowledge to the audience in the learning process and generating skills on the basis of science.

The use of modern innovative technologies in the process of teaching physical science leads to the perception of students, arouses interest in the study of the subject, improves the creative abilities of students. Computer materials are a necessary part of the only educational tools that a teacher can complement, update, lifestyle. The advantages of combining innovative technologies in comparison with traditional education are diverse. To them, in addition to effective testing of knowledge, can be attributed to the variety of methodological forms, from production and logical thinking, etc. Combining computer technology into the learning process, you can provide:

- constructive, algorithmic thinking due to the peculiarities of communication with a computer and the peculiarities of working with specialized programs;
- development of creative thinking by changing the content of reproductive activity performing tasks between intelligent training systems and modeling programs;
- creation of communicative abilities based on the implementation of joint projects in the process of computer business Games;
- Today Education is undergoing modernization processes. One of the main principles of public policy in the field of education is “the possibility of mass use, flexibility in the educational system of the educational system, the features of the education and training of students.”

In conclusion, it can be said that as a result of the application of the above programs in the lecture process, there is an opportunity to display the necessary information to listeners and readers in a short time. And this serves as an important factor in increasing the effectiveness of training.

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