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TRAINING BASED ON INNOVATIVE TECHNOLOGIES AND EDUCATIONAL PROGRAMS IN THE DEVELOPMENT OF STUDENTS' COMPETENCE

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Annotation:
The reforms carried out in our country in the field of education require the training of mature and highly thinking personnel, corresponding to the world model.

Keywords: educational, teacher, technology, method, competence.

This leads to an increase in the method and meaning of learning. In this regard, there is a need for scientific and methodological research, including the creation of a new type of programs and a new generation of textbooks related to the use of computer technology in the education system. In this sense, the issue of using information technologies even in higher educational institutions and including them in the modern educational process is very relevant today. In the implementation of this task, the role of teachers is important - teachers who are required to have strong knowledge, skills and abilities in the field of information technology. Only then will the teacher be able to prepare and achieve the formation of personalities capable of meeting modern requirements. Information technologies in the activities of teachers-educators have the following advantages:
Saving time;
Imaginative study of the material;
Providing the student with additional information within a short period of time
To awaken a deep and lasting interest in science, it is necessary to apply methods that activate students' thinking and attention, help explain the importance of knowledge in the context of scientific and technological progress. Fostering students' interest in science helps them solve many technical issues. The main source of awakening students' interest in astronomy in pedagogical higher educational institutions is the activity of the teacher in the classroom, his personal qualities and the ability to determine the cognitive activity of the student. It is difficult to determine the activity of a student in just one lesson, the reason is that very few hours are devoted to practical and laboratory classes in the course of astronomy.
During one lesson, the student cannot fully show his activity. To increase the student's engagement so that he can control himself, several astronomy programs can be used. To organize lectures on the credit-modular system, we used computer programs SourceLab, AutoPlay, AdobeFlash, C++ Builder. Since our science is astronomy, we used the planetarium programs, (Stellarium,Star walk, WinStar, Celestia, Gaia Sky,Moon, Star Map, Home Planet, Astrometrica, Astro Gemini, Selestia, MaxIm DL, Starry Night, Kstars). During the practical classes, recommendations on the use of computer packages and programming languages were developed. One of the important possibilities of using planetary programs in the course of the lesson is the availability of computer modeling capabilities for some astronomical processes and phenomena, such as the movement of planets, the law of universal gravitation in general, the structure of the galaxy, the appearance of spots on the sun during solar activity. Such models make it possible to deeply understand the astronomical essence of the phenomenon. As the students attended the lectures, they had a desire to attend the upcoming classes again. A lecture on astronomy at any mutual level,

although it is rich in facts, which lasts a long time, the ability of students to attract attention and listen weakens. Therefore, the organization of lectures on astronomy using modern teaching tools gives the effect of organization.

To date, when conducting lectures on astronomy, digital technologies can be used as a modern means of teaching, including expanding the information educational environment and placing didactic electronic educational resources in it. The information educational environment in astronomy allows students to present information in a figurative form, not to get bored in class, and also provide opportunities such as concentration and long-term memorization. Therefore, when preparing future astronomy specialists, conducting lectures based on the integration of web presentations, virtual learning technologies, open and closed online tests, crosswords and problem-based learning technologies will have a great and professional effect. To do this, we recommend the following structure for organizing lectures on astronomy in higher educational institutions, developed as part of the study

Using the proposed structure, lectures on astronomy in higher education institutions involves the organization using mixed learning. The main idea of this structure of the lecture on astronomy is to use information educational environments and didactic electronic educational resources placed in them, which are reflected in the addresses of the global network when organizing classes. Currently, many mathematical packages have been created and are widely used. The most common of them are the packages Maple, Matlab, Mathlab, Microsoft matematice, Derive, Eureka, Mathematica, Maple. These packages are considered multifunctional packages and consist of students performing a set of educational tasks aimed at acquiring practical skills. In mastering practical methods of work, they use modern information and communication technologies. Students perform practical work in writing, in the form of presentations and reports.

The presentation of a new topic is organized in three stages: at the first stage, theoretical information is given using video tutorials and videos; at the second stage, interactive learning tools

At the same time, the assessment is based on the activity and results of quizzes conducted with these students. Another possibility of using information technology is the development of students' independence. The student solves control tests, works independently, understanding the issue, and due to this, his interest in science increases, confidence grows that he masters science and receives evaluation points depending on the work done. He can independently see the mistakes made, depending on the results of his answers, analyze them and correct them. Another advantage of using a computer is that it frees students from hard work, such as repeating the same actions, provides fast execution of experiments, and also allows you to see how the results are related to each other. Therefore, in the course of our research, we studied the capabilities of the LearningApps software platform in monitoring students' knowledge

Effective use of information technologies accelerates and simplifies the process of working with various types of information presented in a digital model. One of the priority areas of training is the formation of computer literacy of students. The development of computer literacy can have a huge impact on science, technology, medicine, education and culture.

In the period of rapid development of the country on the path of innovative development, it is necessary to provide comprehensive support for creative ideas and creativity of young people who are the successors of our future, the formation of their knowledge, skills and abilities, the improvement of the evaluation system based on advanced foreign experience, international criteria and requirements, the study of international experience, a comprehensive comparative analysis of the existing system,

conducting relevant research and developments. close cooperation with international and foreign organizations, agencies, and research institutions is of great importance in this direction.

With this in mind, we also explored the possibilities of international assessment programs (PISA, PIRLS, TIMMS, ICILS). Recommendations have been developed on the use of criteria of international assessment programs on the LearningApps software platform in assessing students' knowledge. The fact that a student feels that his academic progress continues in the group is the strongest factor in increasing his interest. At the same time, the student should feel what result he will get, what benefit he will get by studying astronomy, what it is needed for, and his inner interest should increase. It also increases students' interest in science and the fact that as a result of applying the knowledge they receive satisfaction from checking their own life experience and achieve the correct organization of algorithms for solving problems.

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