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IMPROVEMENT OF THE SCIENTIFIC METHODOLOGY OF TEACHING BIOLOGY IN THE ELECTRONIC INFORMATION EDUCATION ENVIRONMENT

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Abstract
In this article, the reforms implemented to increase the effectiveness of education in general education schools, including the introduction of the electronic information educational environment to the processes of teaching biology, are highlighted. Also, comments on the creation and implementation of electronic resources that serve to improve students' information literacy are presented.

Keywords: educational process, educational efficiency, biology education, electronic information educational environment, electronic resources, integration, student talent, video lessons.

Introduction

Today, according to the conclusions given based on the results of the analysis of the comprehensive study of the educational processes of general education schools, the integrity of theory and practice in the teaching process of many subjects taught in the educational system is sufficient. it can be seen that it is not mounted. It was found that when teachers use traditional teaching methods in the course of the lesson, some students fully and deeply master the subject, while some students cannot master the subject at the required level. Because the teacher needs to review and study the literature for a long time in order to select the optimal information about the subject.

The qualification of a teacher of an educational institution should have two sides, illuminated by special and pedagogical disciplines, and he should always ask: "Why should we teach?", "How should we teach?" should find answers to the questions, as well as be based on knowledge that takes into account the characteristics of education. As we know, the scope of information in the educational system is expanding over time. Information presented in textbooks creates difficulties for some students to master. Also, we can say that the retention of new information in their memory for a long time is one of the urgent problems. After all, we can say that the given knowledge is ineffective if the students are not able to use the acquired knowledge in practice and life activities. One of the best solutions to such problems is the introduction of an electronic information educational environment into educational processes.

We know from psychology that when a person reads a source - 10%, when he hears information - 20%, when he sees a process - 30%, when he sees a process and hears information about them - 50% stores the data in memory. Students will have the opportunity to strengthen their theoretical knowledge in the e-learning environment, and they will also have a broad vision of the subject material.

Modern education requires the teacher to use any electronic educational resources effectively and appropriately. After all, modern students are children of high technologies, and lessons limited to textbooks may become uninteresting and incomprehensible to them. So what should a teacher do in such a situation? In such a situation, the teacher must learn to adapt to the changing reality, to use digital technologies and their products in the educational process.

Today, extensive work is being carried out to improve the effectiveness of teaching biology, to enrich educational processes with the most advanced technologies, and to increase the natural and scientific literacy of students in secondary schools. In particular, the adoption of the Honorable President's Resolution No. PQ-4805 of August 8, 2020 "On measures to increase the quality of continuous education and the effectiveness of science in chemistry and biology" it shows that the attention to training has been strengthened and priority tasks have been set in this regard.

According to the results of the observations, the ability of students to apply biological knowledge in their daily life, abandoning to a certain extent the approach focused on providing students with ready-made educational materials for teaching biology in secondary schools it is necessary to pay attention to the formation of skills. A number of scientific researches are being conducted in our country to improve the effectiveness of teaching biology and to improve students' skills in working with information.

For example, L.M. Korakhonova's dissertation entitled "Improving the method of using electronic educational resources in teaching biology" describes the method of using electronic educational resources in the classroom and extracurricular activities of the 7th grade students, and the effectiveness of teaching is average. It has been proven to increase by 12%. Also, biologist G.S. Ergasheva, in her research work, identified the elements of basic and professional competences of future biology teachers in the active information exchange in the electronic environment, directing them to design activities, independent education based on the asynchronous possibility of the Moodle-Web environment. Methodological system aimed at integration and improvement of students' abilities of biology education identified the possibilities of using interactive software tools.

Below, we will focus on electronic resources, including video lessons, which serve to improve students' information literacy in an electronic learning environment.

Video lessons create the following positive opportunities for students:

- when using computer technologies, students can quickly complete a large number of tasks and save time;

-gives the opportunity for teachers and students to do independent work in front of the computer;

-helps students to learn subjects independently;
- the video lesson draws students' attention to the content of the topics;
- the information that is not clear to the students during the course of the lesson will be learned more deeply by re-watching the video lessons, etc.

Human physiognomy listens to information on a new topic and then engages in its analysis. Some students ignore the information given by the teacher during the analyzed time with slower attention. As a result, the efficiency of complete mastering of a new topic by students is lower. By watching the video lesson again, they can better consolidate the new topic.

Another positive feature of the use of video lessons in educational processes is that it helps to increase the process of mastering topics by students. By watching video lessons, students are more actively involved in the learning process, and it is easier for them to complete interactive tasks given to them on topics.

When video lessons are used in teaching processes, the process of receiving new information increases among students who are interested in science, but also among students who are less interested in science. Watching a video lesson is more interesting than sitting down with a textbook and just reading the text. When using a video lesson, the teacher should adapt to the ready version of this video lesson or create a similar video lesson himself. Another unique feature of video lessons is that when the student is unable to participate in the lesson, an opportunity is created to review the topic independently.

The teacher and the student do not need to look for a convenient time to fill the gap on the missed topic, that is, the student can review the topic independently and study at any time through the video lesson. can master, in this process, when difficulties or questions arise, he will be able to discuss them with the teacher.

Today, video lessons on a number of topics are available in the educational system, and they are used effectively in the teaching process. Because in the conditions of modern education, increasing the independent work and learning of students, developing their creative abilities requires the use of advanced innovative pedagogical technologies and new generation electronic video lessons. Thus, although video lessons are used only for part of the lesson, students receive information through digital means, learn to understand it and apply it in practice.

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