

INNOVATIVE TECHNOLOGIES IN EDUCATION. THE USE OF "PROBLEMATIC" TECHNOLOGY IN ENTOMOLOGY LESSONS.

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Annotation

The article describes the importance of using problem situations in entomology lessons, methods and rules for creating problem situations and the use of innovative technologies in the study of insects. The importance of innovative technologies in education is described, which creates new opportunities for learning and the emergence of opportunities for personalizing learning, expanding communication opportunities and creating a more productive environment for learning entomology. It describes regular and systematic work on training, providing instant access to the necessary information and fostering important skills in working with sources, the ability to distinguish high-quality sources of information from unreliable, attracting young people to scientific activities, the formation of an innovative infrastructure of science in higher educational institutions.

Keywords: Educational objectives, spiritual and intellectual potential of society, world pedagogical experience, modern pedagogical technologies, path of independent development, positive and negative outlook on the world, advantages and disadvantages, process, methodology, innovation, creative thought, creative approach.

The future of each society is determined by how developed the education system is, which is an integral part of it and a vital necessity. As you know, the continuity and continuity of education, limiting excessive repetition in the system, expands, first of all, the spiritual and intellectual potential of society, and also ensures the sustainable development of production as a factor in improving the social and scientific and technological progress of the state.

In the process of developing pedagogical technologies and their introduction into the educational process, as well as the rapid exchange and improvement of information technologies, an opportunity is created for each person to strengthen their professional training and skills. Reforming and improving the system of continuing education in our country, which today is on the path of independent development, bringing it to a new qualitative level, introducing advanced pedagogical and information technologies into it, improving the effectiveness of education have raised the level of state policy.[1,2]

The general pedagogical and didactic requirement for all levels of training is to increase the effectiveness of the student's independent work based on program knowledge, imagination and skills, increase interest in scientific thinking, academic discipline, deepen professional knowledge, increase their activity during theoretical and practical training. The world pedagogical experience confirms that the possibilities of modern pedagogical technologies to interest students in subjects, to increase their activity in independent work are limitless.[3,4]

Today's task of education is to teach students to function independently in an increasing information and educational environment, to use information flows rationally. To do this, it is necessary to provide them with the opportunity and conditions for uninterrupted independent work.

Insect infestation began in ancient times. These included balsa, which was originally considered a food product, and then, when cattle breeding and agriculture were burned on the road, they began to be beaten as pests. At the same time it became known that among them there are useful insects. As a result, sericulture and beekeeping emerged, which became branches of entomological science. But the scientific processing of insects began in the XVII century.[5,6,7]

Today, entomological science and its branches face such important tasks as the theoretical and practical solution of such important issues as the protection of nature from pests, the conservation and wider use of useful insect species.[8]

Innovative technologies in the study of entomology, the use of "problematic" technology in entomology lessons is as follows. First of all, let's give a description of this technology. This technology is complex, multidisciplinary, aimed at studying as many problematic topics as possible. The essence of the technology is that it provides information on various branches of the subject at a time. Meanwhile, each of them is discussed from different points of view. For example, the pros and cons, Advantages and disadvantages, benefits and harms are determined. [1,9,10]

The purpose of the technology is to teach students to correctly find solutions to various problematic issues or situations arising from the topic of the subject, to form their skills to determine the essence of the problem, to introduce some methods of solving the problem and to teach them to choose the right methods

of solving the problem, to teach them to correctly identify the causes of the problem and behavior when solving the problem.[11,12,13]

The technology can be used in lectures, seminars, practical and laboratory classes conducted individually or in small groups, as well as when doing homework.

The order of the training:

- After the teacher has divided the students into groups and placed them in the appropriate places

, then he explains the procedures and training requirements, which means that it is step-by-step, and each stage requires maximum attention from the students, he says that during the training they will work alone, in a group and in a team. Such a mood helps students to prepare for the tasks set and helps them to carry out arouses interest.

- training after explaining the procedures and training requirements, the beginning: a video prepared by students for the lesson, with careful viewing and trying to identify the problem that is covered in it, save it in memory or markup in notebooks, if there is no way to show the video, then the teacher with a poster, picture, poster or problem on the topic of the subject in the text, you can use educational material from the book;

- from this tablet (picture, text, life event)members of each group write jointly identified problems with a marker on a paper or A-3 paper.;

- after a certain time, the prepared work is read out by a representative of the group;

- the teacher is selected by groups and exchanges papers on which problems are written, distributed into groups;

- from the tasks written by the groups in the handouts, each member of the group chooses from the problem of interest to him;

- in the following picture, distributed by the teacher, each member of the group has chosen to independently analyze, writing down their problem.

For example:

Type of problem	Reducing the level of the problem
Reasons for creating the problem	Insect pests
Ways to solve the problem	Pest control measures
Your actions	Preventive measures for pest control



- after completing the individual activity, each student reads the completed analytical work to everyone;
- exchange of collective opinion on problems and their solutions;
- after the defense, the teacher finishes the lesson. Thanks small groups for interesting work.

As a result of classes with such technology, students learn that before solving any problem, it is necessary to determine its cause, and then choose the methods and methods they need, as well as clearly define their actions.

The tools used in entomology lessons when studying the external structure of insects are a video clip, a handout made on A-3 paper, colored markers, depending on the number of groups.[14,15,16,17]

New pedagogical technologies can be used in the organization of trainings, open discussions, individual, pair, small group and team work in the process of teaching students the technology "problem". Alternatively, in the educational process, samples of the methodology of conducting educational classes using pedagogical technologies, methods of introduction and analysis of the lesson, as well as various training sessions conducted in educational institutions can be used. The methodology of the educational process conducted using the "problem" technology can be changed by each teacher depending on the content, purpose, as well as the conditions of the taught subject and subject, the capabilities and needs of students, or on the basis of the technologies presented in the learning process to create and use their own proprietary technologies.

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