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INNOVATIVE METHODS OF STUDENTS' TRAINING

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Summary. This article presents some innovative teaching methods and their application in the educational program at the University. Shown methodical instructions on implementation of practical works and lectures.
Keywords: method, interactive laboratory works; investigative case based learning; experiment.

The purpose of the State program of education for 2011–2020 is to achieve a high-quality higher level of education corresponding to the best international experience and meeting the objectives of industrial and innovative development of the individual, the state that meets the needs of the labor market [1].

In the modern scientific literature devoted to the problems of management of innovative processes in the field of educational activities, the complexity and diversity of this process is noted. Particular attention is focused on the fact that an innovative approach to teaching students should be systematic and cover all aspects of educational work in the preparation of future biologists, while theoretical and practical approaches to the content of education, professional and pedagogical training of teachers, the development of new technologies and teaching methods should be revised. The indicated problems are actively studied by domestic and foreign researchers, such as V. Bespalko, I. Lerner, M. Skatkin, V. Slastenin and others. The Ideas of activation of training were expressed by scientists throughout the period of formation and development of pedagogy long before its registration in an independent scientific discipline. The progenitor of the ideas of activation include J. A. Comenius, J. J. Rousseau, I. G. Pestalozzi, Hegel, A. Diesterweg, D. Dewey, K. D. Ushinsky and others.

Let us dwell on the features of the use of active teaching methods.

The method of "Demonstration interactive laboratory classes". The teacher pre-checks the readiness of students in relation to the theoretical foundations

of laboratory work, the order of work. Controls familiarization with the main objects of study. The teacher controls the order of work on the theoretical information and information discussed at the lecture. For example, such studies as the determination of symptoms of the disease at the object of study, the separation of the mycelium of the fungus from the substrate, microscopic analyses are highly effective in the form of demonstrations. The teacher not only monitors the progress of work, but also directs students to discuss these studies with each other.

The method of "Interactive laboratory classes". Students are given tasks according to the stages of interactive classes. The model of group, pair work is under construction. In the process of performing tasks, the teacher monitors the implementation of the methods of organizing joint work in small groups, the entry of students into effective group relationships. Compliance with the rules of group work is also monitored. The goal of successful learning through group work is performed.

Method "Campus Living Laboratory". Created by Suzanne Savanick Hansen (Mcalester College, Minnesota, USA) [2]. It is proposed to use the local environment as a living laboratory. The location of the educational institution or campus is used as a living laboratory for research. For a living laboratory, the campus of the institution is in close connection with education, educational and methodical complex. Campus materials are taken as an example during lectures or laboratory sessions. Using the campus as a living laboratory improves pedagogical and practical guidelines [3].

Method "Teaching with Visualizations". Compiled by Bob McKay, Clark College. Visualization can be used to describe a large amount of information about relevant models and processes. When using the visualization method, various schemes and drawings appear as simple sketches and animation, as well as 3D photos. Here, the use of juicy colors, photos and drawings, animation can cause great interest. Use of this method is currently available. Availability for use of web versions of the methods used in research, the necessary materials of the research results, the open use of video materials of laboratory methods on the Internet shows the effectiveness of this method.

Method "Investigative Case Based Learning". Through exploratory work, it is possible to solve, create the problem of the object of study and obtain the expected result (Peterson and Jungck, 1988, Jungck et al., 2000) [4–5]. Instructors and students-colleagues show the trilateral nature of this process: it is possible to find advantages and weaknesses in additional references, in problem solving and research. Students have the opportunity to use the solution of problems or specification in the conduct of scientific work, in solving problems. Exploratory work is the formation of new knowledge, based on the definition of the necessary research questions, research work, based on the research with which they are familiar [6].

"Demonstration experiment". Demonstration experiment is used together with other methods of training. In the demonstration experiment, students them-

selves are active. Sometimes you can spend it with one student. The value of a demonstration experiment is that it requires the teacher's control of the following conditions: the demonstration experiment should have a clear goal; the experience should be successful; the experience should be clearly visible; the demonstration experiment should be carried out in heuristic form, in this case, the students themselves will make a "discovery", or come to any conclusion.

The purpose of the modern education system is to prepare a competitive specialist. To achieve this goal, teachers are required to be innovative and to use teaching methods correctly. Teachers ' use of innovative methods in the learning process helps to overcome stereotypes in teaching various disciplines, to develop new approaches to professional situations, to develop creative abilities of students.

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