

METHODOLOGY FOR TRAINING SUBJECTS BASED ON AN INTEGRATIVE APPROACH

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Annotation

The article discusses the problems of enhancing the cognitive activity of students at the stage of pre-university preparation and a number of tasks aimed at developing and improving the learning process when preparing students for entering a university.

Keywords: education and profession, subject knowledge, methodological training, cognitive activity, continuing pedagogical education.

The pre-university stage of preparation is an important step on the path to higher education and profession. It gives students the opportunity to systematize the acquired subject knowledge in the context of secondary school education, successfully pass entrance examinations to a university, adapt to continuing education in higher school, and become confident in the correct choice of their future profession.

Currently, the system of higher pedagogical education is faced with a number of tasks aimed at developing and improving the learning process in preparing students for entering a university. In this situation, the importance of using modern approaches to the construction of methodological training in the subject at the stage of pre-university education increases significantly, which make it possible to shift the emphasis from information and illustrative presentation of material to the search and development activities of students.

In this context, the problems of enhancing the cognitive activity of students at the stage of pre-university preparation are updated. The leading type of activity in this approach to learning is the independent work of students with additional educational, popular science and scientific literature, which contributes to deepening knowledge on the subject, expanding cognitive interests and developing needs for self-education.



Currently, in the system of continuous pedagogical education, the pre-university stage of preparation is an independent type of education aimed at the formation of an educated individual, focused on obtaining higher professional education and ready to study in higher school.

Studying the practice of teaching biology at the stage of pre-university preparation at a university made it possible to discover shortcomings, the main reasons for which are:

- the lack of development of special methodological and educational literature; weak material and technical base;
- insufficient use of various organizational forms of training; training at the factual level of knowledge acquisition, the use of traditional approaches to the selection of methods and organization of student activities without taking into account the specifics of learning conditions in preparatory departments and courses;
- lack of special formulation of tasks for the development of personality and motives for teacher education, development of interests in the teaching profession and work. All this causes a weak, superficial, unsatisfactory character in preparing students for entrance tests in biology at a pedagogical university.

Analysis of psychological and pedagogical literature, the practice of teaching biology at the stage of pre-university preparation allowed us to substantiate the integrative-modular methodological system of biological preparation of students for entrance examinations to a pedagogical university.

It can be justified by pedagogical principles: scientificity, humanization, continuity, consistency, and specific principles of integrative-modular training of students are defined: continuity, feedback, unity of integration and differentiation, independence, combination of complex, integrating and particular goals, modularity, complementarity, functionality of knowledge, profile, professional orientation. Based on these principles, requirements were identified for determining the goals of training, selecting content and its structure, choosing forms, methods and means of teaching and organizing the educational activities of students at different stages of biological training in the preparatory department and preparatory courses at a pedagogical university.

Based on systemic, integrative and modular approaches, an integrative-modular method of biological preparation of students for university entrance examinations has been developed. The developed methodology is an open, dynamic,



methodological system, which includes a set of goals, objectives, content of biological training of students, forms of training and organization of educational activities, methods and means of teaching. During the experimental study, methodological conditions were established to ensure the effectiveness of the implementation of the developed integrative-modular methodology for biological training of students of preparatory departments and courses, namely: motivated selection of modules structuring biological content; the use of modular programs that determine the volume and content of educational modules and modular units of program material in biology; motivated and emotional presentation of educational material with a focus on the teaching profession.

It is appropriate to start the integration process by emphasizing the aspects of learning the material that allow students to form basic competencies. Such aspects include the historical aspect, patriotic education, the formation of an ecological worldview, as well as the updating of professionally oriented information, since the study of general education is carried out in a vocational educational institution.

Of course, the subject of every science has a historical side. But it is important to keep students interested in the subject being studied without overloading them with unnecessary information. Historical information should be woven logically into the material being examined; the historical aspect should encourage students to study specific issues of science [2].

It is possible to distinguish topics in the work program from physics, the content of which allows updating information about the scientific and technical achievements of great scientists and designers. It is also necessary to draw students' attention to the close relationship between local and foreign achievements, to create parallels, to compare the achievements of our science and the discoveries of foreign scientists [3].

Many topics in the work program directly or indirectly address environmental issues. In education, students' attention should be drawn to environmental protection measures and the positive effects of active factors; it is appropriate to consider the consequences of man-made disasters, as well as issues related to the use (prohibition of use) of nuclear weapons [4].

Professionally oriented information is included in the teacher's work program according to the taught subject. In this case, updating is a natural continuation of learning this material. Vocationally oriented information is distributed according to



the subjects of the work program depending on the profession studied by the students [5].

In the process of experimental research, the necessity and prospects of using the integrative-modular methodology of biological training of students in the practice of teaching biology in preparatory departments and courses at a pedagogical university was proven. The results of experimental training indicate a high level of formed™ biological knowledge of students, an increase in interest among students of preparatory departments and courses in the teaching profession and the work of a teacher.

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