

THE MODEL FOR THE DEVELOPMENT OF PEDAGOGICAL EDUCATION, THE METHODOLOGY OF ITS CONTENT AND STRUCTURE

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Annotation

The model for training teachers of biology should be based on the development of general approaches to the selection of professional knowledge in the context of a violation of the correspondence between its development and the growth of general scientific, natural sciences and pedagogical knowledge.

Keywords: expert, pedagogical, model, methodology, creativity, biology.

Currently, the problem of developing a model for the development of pedagogical education, determining the methodology of its content and structure has been identified. This model should ensure overcoming ideology, which is contrary to the general direction of Social Development. The model for training teachers of biology should be based on the development of general approaches to the selection of professional knowledge in the context of a violation of the correspondence between its development and the growth of general scientific, natural sciences and pedagogical knowledge. This model should include the dynamism and mobility of the professional-qualification structure and scientific-educational complexes that provide a choice of professional development tools.

The specialist model is usually understood as an ideal condition that should be achieved in the implementation of higher education training. The model should take into account the following parameters: requirements for a specialist, a list of necessary knowledge and skills, socio-psychological qualities of a person that ensure the effectiveness of professional activities.

A specialist model is professional, socio-psychological, creative qualities that determine the ability to work in the conditions of market relations and achieve results corresponding to the requirements of socio-scientific and technical progress. Professional activity should cover several areas: organizational and pedagogical; scientific and methodological; socio-pedagogical; cultural and educational.

Teachers of modern biology in the field of psychological-pedagogical and methodological training are:

- having as the subject of the educational process a system of knowledge about a person, his age, personal qualities, about system of knowledge, factors of Social Development, laws of psychological development at different ages;
- knowing the knowledge of content of the school biology course and the methodology of its teaching;

- determine of educational and development ties, structure and functions of educational activities, principles of educational organization;
- acquire knowledge and skills in the laws of the pedagogical process, modern psychological and pedagogical theories and technologies of Education, modernization, effective organization of the pedagogical process, assessment and correction of the educational process;
- Having a system of knowledge on the structure and content of educational processes, promising areas in the development of educational systems;
- Students with deviations in development should have the same knowledge of their specific qualities and knowledge of their educational characteristics.

First of all, the role of the model of the methodological training system in the multi-stage education system was determined.

As mentioned above, a multi-stage pedagogical education system involves the selection of several successive levels in the training of a specialist. At the same time, the first two degrees are in the direction of education, and the third is in the direction of professionalism.

We believe that students' methodological training should be considered in a two-way direction; on the one hand, it is the directions that are designed to acquire knowledge, and on the other hand, to master the initial methodological experience.

Although we believe that elements of methodological training should be present at all levels of education, the main goal in the system of methodological training is to create conditions for the development of a methodological culture and the formation of the style of its professional activities.

In the concept of "methodological culture", we are putting a broad worldview and a high level of professional education. The knowledge of one's profession is represented by a set of knowledge about the process of teaching biology. This knowledge involves students mastering the properties of biological knowledge and the methods of its organization to study the features and methods of studying biological content, to study the methods of presenting biological knowledge to the younger generation. This knowledge is of professional and educational importance in the training of future biology teachers.

If we talk about the professional worldview of teachers of biology, then it represents the professional part of the general cultural knowledge of teachers of biology. We believe that the methodological thinking of teachers of modern biology must be formed the understanding of the historical development of Science and the understanding of the accumulated methodological experience.

In addition, the developed methodological training system should create conditions for the development of individual interests and abilities, which give direction for the development of an individual style of professional activity of teachers of biology.

Taking into account the established goals, the results of students' studies are also laid out in a person-oriented methodological system. The results obtained determine the readiness of

students for practical training in various educational environments. Preparation for professional activities is determined by several levels. They are : the level of professional competence of a specialist, mastering professional activity, manifestation of professional self-esteem, the level of self-assessment.

In gaining methodological experience: in mastering the content of biology, a special place is occupied by studying the effectiveness of students ' cognitive activity.

One of the leading tasks of methodological training is to prepare students for professional activities in schools of various directions. To do this, theoretical courses and forms of Practical Education, Competition and specialist courses should be provided in the implementation of methodological training of teachers of biology.

Studies at a higher education institution include such forms of knowledge control as control departments, control work, coursework, abstracts and exams.

It is very important for students to know in advance the curriculum, the deadline for passing exams, the transition from pedagogical practice, which in turn allows you to create an individual direction of action throughout the level of education.

A special place in the organization of student training in the system of methodological training is occupied by practical training in the design and creation of the process of teaching biology. Another type of practical activity in the preparation of the future teacher of biology from the point of view of methodology is activities related to real pedagogical practice. We consider this type of activity as a tool for the formation of methodological skills. Pedagogical practice is a source of practical experience. But currently, in the fourth year, pedagogical practice is carried out before the theoretical course of the methodology of teaching biology. Therefore, it is considered a good and most acceptable case that the theory precedes practice. Therefore, in the innovative process, there is a need to revise the essence of the activities of teachers of biology and make adjustment to the content of their training in higher educational institutions. The methodology course of teaching biology mainly directs students to advanced pedagogical experience, as a result of which they understand not the technique, but its ideas. Special attention to the training of educators should be paid to the strategy of long-term changes in the training of educators on the basis of their creative activity, which allows you to expand the professional interests of the educator, make innovation assumptions, participate in an innovative process.

First of all, it is necessary to revise the concept of creativity. In the eighties of the last century, the work of educators was understood as the timely introduction of their advanced experience into school practice. The experience of some innovators had a low utilization factor because it depended on the personality of the educator, which could not be replicated. Nowadays, the creativity of educators is constantly brought to creative search with the help of various information sources, including information technology.

Special attention in the preparation of biology educators should be paid not only to the course of the methodology of teaching biology, but also to pedagogical practice.

Currently, the first model is being implemented in the practice of higher education institutions. This model involves two stages in the methodological preparation of teachers of biology. At the first stage, a pedagogical practice of the field of biology is carried out in a state where there is not yet an idea of the teaching methodology. As a result of this approach, students face a number of challenges. The main of them are psychological-pedagogical, methodological and organizational problems. Therefore, pedagogical practice in the third year has only the importance of introduction, which does not give the necessary results in the methodological preparation of students, that is, the inefficient use of study time occurs. It is this aspect that is considered a weak point in this model. At the second stage, the combination of the teaching methodology of biology and the study of pedagogical practices occurs, but students will not have the practical skills and skills that should be formed at the first stage, and at the second stage they will have to develop and improve. Students perform graduation qualification work with little time in parallel, and therefore, in most cases, the results obtained will not be enough. We propose to use the second model, which consists of two stages:

At the first stage, in the third year, it is necessary to study the methodology of teaching biology, and then a pedagogical practice is carried out, which includes elements of research on the future graduation qualification work. But since at the moment the course “methodology for teaching biology” is not studied in the curriculum, the situation can be corrected by taking special courses. In our study, several special courses were applied, such as “modern problems of biological education”, “extracurricular activities in biology”, “the base of educational materials for teaching a school biology course”.

The use of special courses makes it possible to eliminate a number of problems in conducting pedagogical practice and carry out the stage of the initial experimental and test work of pedagogical research. In addition to certain criteria of documents on pedagogical practice, students present a report on the research work carried out.

In the second stage, special courses are offered on various sections of the methodology of teaching biology, which allow you to expand the field of methodological knowledge, skills and qualifications. At this stage, a second pedagogical practice is carried out, which has its own goals, objectives and content. In the second pedagogical practice, the main time is allocated to carry out research on the selected methodological problem. Therefore, we believe that the changes made to the structure of the methodological system will make it possible to significantly increase the level of methodological training of future teachers of biology.

But in order to fully implement the second model, it is necessary to change the training plans and increase the number of hours allocated for studying the methodology of teaching biology, which is considered in the methodological preparation of educators. Nevertheless, many issues of training teachers of biology have not yet been resolved.

Among them, the following can be distinguished:

- change the temporary structure of the study of the methodology of teaching biology in educational plans
- compliance with the principle of sequence in the educational process;
- changing the outdated curriculum on the methodology of teaching biology in connection with the reform of the general secondary education school;
- the methodological support necessary in the methodological preparation of biological educators is the insufficient development of textbooks, methodological manuals, methodological recommendations, etc.

For the implementation of pedagogical practice, schools were selected taking into account the following:

the use of various types of regional educational institutions-schools, lyceums, non-governmental schools, experimental schools, where subjects are taught in depth;

the topic of research work of students-schools working on various scientific problems: schools for the development of education, self-determination of professional orientation, computer technology, etc.;

an individual and differentiated approach to teaching biology;

Organization of education in special classes; study the best experience of teachers of biology, elements of creativity.

Due to the above problems, we consider the improvement of the methodological training system of teachers of biology as an important direction.

New forms of control that are recommended for use in a methodical preparation system are: testing, rating, expert assessment of practical activities, etc. For example, the test can be applied to the current control of the level of knowledge, and the final is a control system throughout the learning process. The expert assessment can be applied to assess the dynamics of professional growth of students in pedagogical practices at school.

As specialists, educators, Methodists, school educators can be manifested. The work of students should be evaluated by students, as well as by self-analysis. In this case, the assessment becomes more objective. Self-assessment is very useful because it helps to develop assessment criteria and build professional awareness.

The model of methodological training of teachers of biology combines all the components that create conditions for each student to develop under a single goal. The implementation of methodological training of teachers of Biology in a higher educational institution should have organizational integrity, which is determined by the separation of a number of methodological disciplines in the curriculum. Another feature of the proposed model is its flexibility. The flexibility of the system is determined by several methods of organizing the program development process. We believe that this feature of flexibility allows us to choose the direction of education of students.

Finally, it should be noted another feature of the methodological educational system, manifested in coordination with educational systems, which is the general secondary biological educational system as a sphere of future professional activity of an educator.

As we noted above, the multi-level system of higher education includes a certain stage of methodological training. Thus, at the third stage, a highly qualified specialist is trained through a master's degree. At this level, specialization is carried out and many courses are offered according to the competition. As a result, highly qualified specialists are trained.

Recently, a trend has been observed by schools to adopt a specific profile, which in turn is aimed at training special school educators.

Methodological preparation is carried out in stages. From it we can distinguish three stages, they are: initial, basic, stages of professional specialization. The initial stage involves the orientation of students towards problems related to the disconnection of biological knowledge. At the main stage, biology education is carried out in the main school. The main task of this stage is to study the methodology of teaching biology in the main school. After this stage, the student acquires the qualification of a teacher of biology of the main school. The stage of professional specialization allows you to develop the peculiarities of biology education in a school of a certain profile.

The developed model of methodological training allows you to change the position of educators and students. The educator carries out the transfer of information, organizes the educational process and evaluates the results of mastering. Most often, the educator appears as a consultant or participant in discussions.

In the implementation of methodological training, the student becomes a subject of educational activities. This means that each person can choose their own direction according to the level of education, but at the same time, he will be responsible for the results of education.

We will consider in detail the methodology for the implementation of work by introducing into practice the goals, objectives, principles and content of the course of methodology for teaching biology, which occupies a leading place in the system for the implementation of methodological training of teachers of biology.

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