

METHODOLOGY FOR TEACHING BIOLOGY AT MEDICAL UNIVERSITY

Shakirova A.P.,

Teacher, Branch of Kazan Federal University, Jizzakh, Uzbekistan

Abstract. The effectiveness of the manifestation in the educational process of the most important pedagogical pattern - the unity of teaching, upbringing and development of students is determined by the teacher's ability to use the objective possibilities of the content of biological education and teaching methods. In the process of mastering biology, students acquire educational knowledge, skills, and abilities, which helps to increase the level of their cognitive independence. This article discusses about students' assimilation of a system of biological knowledge and mastery of educational skills which is a necessary condition for the formation of their worldview, atheistic views, hygienic, sexual, environmental, labor and moral education.

Keywords: attitude, nature, society, work, health, relationships, educational tasks, developing skills, abilities, professional guidance.

The personality of the biology teacher is of great importance in the education of students. This must be a biologically educated person who is constantly improving his knowledge. A biology teacher is, first of all, a promoter of biological knowledge and an educator, under whose leadership a person's personality is formed in all the diversity of its qualities: love for the Motherland, nature, work, understanding the value of life in all its manifestations, the desire for constant self-education and self-education [1].

Success in the work of a teacher, in solving the educational and educational tasks facing him depends primarily on his understanding of the content of pedagogical activity, its main functions, the implementation of which ensures the effect of education and upbringing of the younger generation.

Along with and simultaneously with equipping students with knowledge and developing their thinking abilities, i.e. With the solution of educational problems, the education of students is also carried out. It is associated with the development of scientifically correct attitudes towards nature, society, work, and health. When relationships are developed and motives are formed. This is the essence of education. The educational tasks of a biology teacher include: arousing interest in the study of biology, developing skills and abilities to provide professional guidance to students, taking into account their inclinations and capabilities, developing the right attitude towards nature, carrying out aesthetic and moral education of students, transferring knowledge into beliefs and have an impact not only on the mind, but also on the feelings [2].

Educational, developmental and educational tasks in teaching biology are aimed at achieving the main goal - the comprehensive development of students' personality.

To achieve this goal, the following educational tasks are solved when teaching biology:

1. formation of a scientific-materialistic worldview,
2. moral education,
3. aesthetic education,
4. labor education,
5. environmental education,
6. hygiene and sex education,
7. fostering a correct attitude towards your health and the health of others.

All educational tasks are interconnected and addressed to the student's personality. Their grouping is necessary for the teacher's awareness and comprehensive formulation of educational tasks when preparing and conducting biology lessons. Educational tasks are determined by the specifics of the educational material, the presence of ideological and practical aspects in it and must be specific and solvable within the framework of the lesson. Therefore, it is important to specify the educational tasks associated with individual areas of education.

Of particular importance in biological education is the labor education of students, their preparation for independent life and work [3].

Biology occupies one of the leading places in the labor education of students. At the same time, a number of educational tasks are carried out:

1. polytechnic education based on mastering the elementary scientific foundations of biological industry, biotechnology, agriculture, healthcare;
2. mastering basic knowledge about physiology and occupational hygiene;
3. mastering the skills and abilities of growing plants and caring for animals, practical actions for nature conservation;
4. fostering a love for agricultural work and the need for active work.

The methodological basis of labor education of students in the process of teaching biology is the doctrine of the role of labor in the emergence and development of human society, the role of labor activity in the moral education of a person as a mandatory social condition for the comprehensive development of the individual.

Education of morality is one of the most important tasks of the school.

Moral education passes through all types of education of students in the learning process [4].

Aristotle says: "Nature has given man a weapon - intellectual and moral strength, but he can use this weapon in the opposite direction; therefore, a person without moral principles turns out to be the most wicked and savage creature, base in his sexual and taste instincts."

Time will pass and another philosopher - Hegel will formulate this thought as follows: "When a person commits this or that moral act, then he is not yet virtuous; he is virtuous only if this

method of behavior is a constant feature of his character.” Today, high morality is perhaps the most important trait for a person and society as a whole.

A person must be worthy of this title. He cannot live without a high goal, without an ideal, without morality and ethics. These qualities are not innate and are not passed on from generation to generation. There are many examples where students of very intelligent and decent parents became the scum of society. And vice versa, in dysfunctional families bright personalities grew up with pure thoughts, high civic courage, a tireless passion for good deeds, modest and strict with themselves. But this is rather an exception to the rule. After all, it is the family, with its attitude to life and its morality, that lays the foundations for the moral education of students.

Finally, the methodology course (as an interdisciplinary course) in the context of the implementation of new educational standards, existing and actively designed and implemented programs of basic and additional education is forced to take on functions that were previously unusual for it [5]:

- correction and integration of students' knowledge and skills acquired while studying various blocks of the professional educational program;
- assistance in drawing up an individual educational trajectory of a student in the system of continuing education.

These new tasks undoubtedly require attention and separate research in biology teaching methods.

However, when talking about a “new” methodology for teaching biology, we cannot limit ourselves to setting updated goals. It is necessary to determine the leading approach and group the goals into a certain hierarchy. This approach, in our opinion, is a psychological-methodological approach as the most appropriate to modern tasks posed to educational systems for the comprehensive development of the individual.

The selected methodological guidelines allow us to consider the theory and methodology of teaching biology as a special educational space and environment for individual professional and personal self-determination of students, a training course for the development of methodological creativity, and the student’s personality itself as an absolute value, focused on freedom of choice and decision-making, self-realization. With this approach, the content loses its alienated character and is brought to the personal level [6]. The disclosure of subjective experience by means of the educational discipline “Methods of teaching biology” must certainly be carried out by students in situations of educational dialogue, game and project activities, real immersion in the educational environment of various educational institutions, as well as in solving specific problems that create a value-semantic field of intersubjective communication, productive dialogue that develops the professional and personal experience of future biology teachers.

The biology teacher training methodology is aimed at students mastering pedagogical technologies focused on the positions of kindness, empathy and trust, the right of students to



make mistakes, and the formation of the teacher's internal personal conviction in the capabilities and abilities of students.

The practical implementation of complex psychological-methodological and personal-active approaches involves multi-level design and analysis of the educational process in subject teaching. In relation to the biology teaching methods course, multi-level design is [7]:

- the content core of learning (includes the principles of selection and construction of content and its invariant theoretical foundations: conceptual systems of biology, its basic theories and theoretical systems of concepts);
- the level of modeling and reflection of objects of knowledge, the isolation of which is due to the specifics of the objects of study of biology, its belonging to the macro- and microworlds and the huge role of abstract clarity in teaching; this level involves students studying the methodological principles of using biological experiments in teaching, corresponding graphics and symbols;
- the level of intra- and interdisciplinary integration of knowledge, the connection between theory and practice and personal life experience of students;
- level of readiness for the development of students' personalities in subject teaching, which involves students mastering targeted methodological programs, organizing developmental training for subjects of the educational process, creating an emotionally comfortable learning environment, developing internal motivation for learning and adequate self-esteem in students

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