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FROM THE HISTORY OF THE METHODOLOGY OF TEACHING BIOLOGY (ON THE EXAMPLE OF THE HISTORY OF EUROPEAN SCIENCE)

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Abstract
In the article there are brief opinions about the occurrence of biology as a science, its teaching, the teaching and development of this science in European schools. The scientific research work of European scientists was effectively used in the field of coverage of the topic of the article. It is desirable to use the natives from the article for the purpose of teaching and training future biology teachers in higher educational institutions.

Key words; biology, European, Zuev, Karl Linney, Darvin, plants, animals, teaching, natural sciences, ecology.

Introduction

The science of biology is a science with an ancient history, but its teaching as a separate science goes back to the ancient history of science. Natural science was introduced into schools as a teaching science at the end of the 18th century. In this regard, the initial handbook V.F.Zuev wrote. His textbook consists of such sections as" inorganic nature"," the world of plants"," the world of animals". The first section is about soil, stones, salts, side substances, organisms that have become stones. And in the Department of the plant world, knowledge on the cellular structure of plants, the classification of various plants is given. In the Department of Zoology, The external appearance of some animals, the way of life is told. V.F.In the Zuev textbook there are data on ecology, except for plants, animal morphology, system. The textbook also gives an idea of the use of natural, fine-sighted weapons. The textbook of Botany of A. S. Teryayev, published in the XIX century, was not understandable to readers, since it was completely copied from the work of Karl Linney, the founder of systematic science, “Botanical philosophy”. In Russia in 1828-1852 years in the field of public

education reformed and removed from the school plan of natural science educational science. But then, starting from 1853, subjects such as "general understanding about nature", "zoology", "botany", "Mineralogy", "human anatomy and physiology" began to be taught again in schools. The volume of textbooks written in these educational disciplines was huge, and the educational materials contained in it were very complex, so that there was no excitement in the students. Only because the Botanical textbook written by Dal has a rich knowledge of Ecology and nature protection, it has become understandable and aroused interest in readers in this science.

Teaching of Natural Science in schools and its methodology. By the second half of the XIX century, After the publication of Darwin's teaching on organic olam Evolution, scientists found that A.N.Beketov, K.A.Timiryazev acknowledged that the main task of the school of Natural Science is the development and upbringing of logical thinking of students 12. A.N.Beketov notes that natural science is important in the development of logical thinking of students independently. He points out that in the teaching of natural science it is extremely important to use a wide range of weapons of sight, conduct experiments. A.N.Beketov's views on the field of education in many respects remind the views of the German naturalist pedagogue August Lyuben (1804-1873). In his textbook devoted to natural science, it is emphasized the educational importance of this science, in particular, the need to form the skills of conducting research work on them in independent studies, on extracurricular ones, conducted by students. A.By the Lyuben method, students should first get acquainted with individual representatives of the organic world on the example of local objects. Bunda as natural as possible plants, and in other cases with animals it is necessary to train with their good ishlangan images. This is how students learn independent instructional materials based on the plan proposed by the teacher, from simple to complex, from known to non-formal, that is, inductive method should take the main place. But the lack of visual aids in schools is aHe prevented the introduction of lyuben's advanced methodological guidelines. Thank you.The fact that attention in the textbook of Lyuben was focused only on the morphology and systematics of plants naturally did not satisfy the pedagogical community. And this, in turn, showed the need to solve new pedagogical problems that correspond to the content of Natural Science. Naturalist pedagogue A.Y.Gerd's (1841-1888) activities focused on solving these problems. A.Y.The biggest drawback of Natural Science Lyuben, according to Gerd, is that its content does not correspond to the modern requirements. A.Y.Gerd is considered a major methodologist of Natural Science of the XIX century. He noted that the main purpose of the school's natural science is to provide students with a developing knowledge as well as an indicator of the development of their

independence in the acquisition of knowledgeIn Gerd activity, it is important to demonstrate experience in lessons, to conduct excortions, to conduct practical classes. According to the Note 13 of the scientist, the task of teaching natural science should be to acquaint with the diversity of organisms, to explain their attachment to light, charisma, moisture, air and other organisms, to recognize the interconnectedness of the result with the cause in nature. A.Y.It was under the influence of an evolutionary theory based on Gerd Darwin and introduced the principle of evolution into his textbooks. school Natural Science course:

1. The inorganic world;

2.World of plants;

3. He argues that the" world of life "should be structured from such educational disciplines as" Man"," history of the Earth". Thanks to the activities of Gerd, the methodology of teaching natural science began to be recognized as a separate scientific branch of pedagogical science.

Case of the methodology of teaching biology in the XX century. To the methodology of teaching biology in the XX century Polovstov added a large plot. He published in 1907 the book “the general methodological basis of Natural Science”, in which he covered the system of knowledge on methodology. Polovstov emphasizes that the content of the educational material included in the textbook should first be based on the unity of the function with the form, and secondly on the study of the life of plants and animals in connection with their living environment, on the study of organisms that give the uchinchi rich biological information. In the process, the scientist shows that practical exercises, exorcisms have an important role in the process of persuasion. V.V.Polovstov first reveals the similarity and discrepancy between marotaba science and educational science, and emphasizes the need for research work in this area. In the history of the methodology of Natural Science V.V.Polovstov is highly valued as a scientist who promotes environmental knowledge. From 1917 year the science of Natural Science began to be called biological science. During this period, the Methodists of Moscow and Petersburg tried to increase the level of teaching biology, revealing its educational and educational significance. Over the years 1920-1930, biology has been the main problem of teaching is the introduction of unity of theory and practice. To do this, knowledge and skills were distributed, that is, the educational material was distributed to the educational disciplines, but also to the actual subjects, taking into account the seasons, such as "nature", "the connection of the city with the village", "the physico-chemical basis of life and life processes on Earth", "planting and plant care". That programs were not able to naturally provide systematic knowledge to the students, accordingly, the study of the teaching material

on the basis of laboratory method began to be promoted. As a result, instead of classroom lessons, students began to engage in nature observation, experimentation. The main purpose of the laboratory method training program was to study labor, nature and society. Theseeksex curricula were aimed at bridging the barrier between educational science taught in schools. But it quickly became known that sucheksex curricula could not provide systematic knowledge to students. Therefore, starting from 1931 year, by the decision of the government, the primary and secondary school was reformed, and the main organizational form of teaching was justified as a lesson. Since that time, Botany, Zoology, human anatomy, physiology, Darwinism in schools have been included in the school plan of Educational Sciences, educational programs and textbooks on these subjects have been created and introduced into school life. However, until 1964 year, knowledge in school textbooks shed light on the state of development of Biological Science in 1930-40 years. However, according to the principle of didactics in science, the school should have expressed in its content the further achievements of science. The main reason for the fact that biology textbooks issued in Russia and Uzbekistan were taken from the achievements of biology is that in 1935-65 years the hard ideological struggle in the science of biology continued. Academic T.D.Lisenko chief a group of scientists did not recognize the achievements of science obtained in foreign countries, and did not allow them to take the place of the latest achievements of biology from the textbook saxifrage on the grounds that the discoveries of burjua scientists, they are contrary to our worldviews from an ideological point of view. Only in October 1964 academic Lisenko after the break-up of the cult of personality all biological programs and botany, zoology, human anatomy, physiology, general biology textbooks in the school included the latest achievements of genetics, ecology, dentistry, Biochemistry, Molecular Biology 15 and the like. Along with the new textbook, manuals on their teaching methodology were also published. These include prof. P.I.M. “methods of teaching biology”, which came out under the borovistky edition1962, prof.B.V.Vsesvyatsky's methods of general education in biology " M.1960, N.M.Verzilin and V.M.M. Korsunskaya " general methodology of teaching biology” 1983, prof. I.N.Published under the pseudonym Ponamaryova” general methodology of teaching biology " M.It is possible to add such as 2003.

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