



DIDACTIC REQUIREMENTS FOR ORGANIZING LABORATORY WORKSHOPS IN PHYSIOLOGY IN HIGHER EDUCATIONAL INSTITUTIONS

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Abstract

This article presents the didactic requirements for organizing laboratory classes in physiology in higher education institutions, their current state and some parts of the ways to eliminate them.

Keywords: Didactics, laboratory, teaching, learning, training, method, tool, result, special didactics, general didactics.

Introduction

The goal of the reforms in the field of education being implemented in our republic is to create conditions for a high level of physical, moral, aesthetic and active development of the individual. Achieving this goal will contribute to raising the intellectual potential of our independent state to a high level. At the same time, it is worth noting that the third millennium recognizes education as a necessary and large-scale area of human activity. Today, more than a billion students and about fifty million teachers participate in the educational process. The 21st century is associated with the growth of the social role of education and the determination of new prospects for the future generation. The national personnel training program is the only education system that comprehensively covers the process of providing continuous education and upbringing to the younger generation.



Main Part

The didactic support of laboratory exercises in higher education institutions has not yet been filled with some shortcomings. In order to partially fill these shortcomings, the laboratory can provide practical assistance in the productive use of students' time and their assessment through test tasks in workbooks, illustrated questionnaires, tables, and various illustrated tasks to improve the didactic support of laboratory exercises in physiology.

Laboratory exercises teach students to continue the work they have begun until a specific goal is achieved, to be disciplined. The educational and educational significance of laboratory exercises is increasing, especially in the current era, when there is a need to sharply strengthen the independent learning activities of students due to the introduction of new pedagogical technologies into the educational process. Therefore, the didactic support of laboratory exercises is an important issue. The main goal of laboratory exercises is to develop the skills and competence of students to work independently by determining the systematic location of living objects, observing their life, and conducting experiments on them.

Didactics - the word comes from the Greek words "didasko" - teaching, "didaskole" - teacher, meaning "I teach, I teach", is a separate branch of pedagogical education, a theory of pedagogical education that scientifically substantiates the educational process, content, laws and principles, forms, methods and means. This term was introduced into science by the German pedagogue W. Ratke (1571-1635). Under the name of didactics, he understood the scientific discipline that studies the theoretical and methodological foundations. The fundamental scientific foundations of didactics were first developed by J. A. Komensky (1592 - 1670). In 1657, he wrote the work "Great Didactics" in Czech. Under the name of didactics, Komensky understood "the art of teaching everyone everything." In developing the essence of didactics, G. Pestalossi, I. Gerbart, K.D. Such famous scientists as Ushinsky, V. Ostrogorsky, P. Kapterev made a great contribution. Didactics Yu.K. Babansky, N. Gruzdev,



M. Danilov, B. Yesipov, L. Zankov, M. Skatkin, etc. also did a lot of work in this direction.

An important feature of the views of Al-Khwarizmi, Kindi, Abu Nasr Al-Farabi, Al-Biruni, Ibn Sina, Omar Khayyam, Nasriddin Tusi and their followers was that these scientists always paid attention to the process of abstracting the image of the subject in the human mind, the emergence and formation of understanding of the essence and uniqueness of this subject. Abu Nasr Al-Farabi developed a classification of teaching methods. He divided them into practical and theoretical methods, thus putting forward the ideas of the practical direction of teaching and its connection with the life and daily activities of people. The scientist paid special attention to experimental, inductive and deductive, practical methods of teaching.

The main categories of didactics include:

Teaching - the organized activity of a teacher to achieve the goal of education.

Learning - the process of acquiring new forms of behavior and activity based on understanding, practice and acquired experience, while previously acquired ones change.

Teaching - the organized interaction of a teacher with students aimed at achieving a set goal.

Method - a way to achieve (implement) the goals and objectives of teaching

Means - the subject support of the educational process. Means include the teacher's live speech, his skills in a broad sense, textbooks, equipment, etc.

Results (products) - the final result of the educational process, the degree of achievement of the set goals.

Didactics and methodology are in close contact and interdependence. Didactics studies the general laws of teaching. The specific features of teaching a specific subject are developed in special methodologies.

Special didactics - methodological (teaching) disciplines that teach the laws, methods, means, forms and ways of teaching specific academic subjects - is also one of the main areas of the pedagogical sciences. It develops on the basis of the achievements of general didactics and improves only on the basis of its theoretical



generalizations. Didactic laws applied to a specific subject legitimize the general aspects of that subject and reflect the universal aspects of teaching.

Results and Discussions

The goals, objectives and main concepts of didactics. The main task of didactics is to equip the younger generation with a system of scientific knowledge, skills and qualifications. All this should be reflected in the implementation of the teacher's educational, educational and developmental tasks.

For example, in higher pedagogical educational institutions, there is not enough laboratory equipment for laboratory classes on physiology, this does not mean that laboratory classes should be held in a poor quality, therefore, in order to reduce this problem, it is necessary to further improve the methodological and didactic support of laboratory classes. In particular, we can include the following in the didactic support: a student workbook for students. In it, students will have a theoretical part on the topic, pictures on the topic, tables, test tasks, various interesting, problematic questions, problems, video tutorials, and a place for drawing.

Conclusion

In conclusion, it should be said that the effective organization of laboratory exercises in pedagogical education is an important problem for current higher education institutions, and we believe that the above didactic development can help to partially eliminate these problems and effectively organize the exercises. In this case, students will be able to organize the lesson correctly and self-assess. Because in laboratory exercises, students will have to work independently, master the topic, be able to self-control, and of course, everyone needs to be evaluated, and the above method will help in this.



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