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THE APPLICATION OF INNOVATIVE METHODS IN TEACHING NORMAL PHYSIOLOGY

Abstract. In the curricula of the university majors "Physiology"the largest number of hours is devoted to the discipline " Human Physiology". Students take it for the course is completed after two years of studying biology, so the discipline program includes some aspects of evolutionary and comparative physiology. Biologists deepen their physiological knowledge in the 2th year, studying "Normal physiology" which is important for their future teaching works. In medical universities, normal human physiology is focused on medicine and is the basis for understanding pathological physiology and mastering clinical disciplines. And yet, the main part of the program of all sections of physiology among biologists and physicians is no different.

Key words: Physiology, teaching, optimamal program,education.

The modern level of physiological science is such that for its successful assimilation, even within the framework of an academic discipline, considerable efforts are required from students, and from the teacher – careful attitude to lecture time, strict selection the presented material and the development of additional didactic teaching tools. It should also be noted that none of the available textbooks can be considered optimal: some are outdated, others are oversaturated with new information, often of interest only to narrow specialists, therefore , the most important and obligatory for assimilation is lost in small details. It is impossible to discount the fact that the purchase of new textbooks has now become a financial problem. This implies the need to develop a system of techniques for managing the study of each topic, increasing the teacher's responsibility for the quality of learning

The trend in modern higher education aims to reduce the proportion of traditional classroom instruction while maintaining the overall academic workload and increasing the amount of independent extracurricular study time for students. [1]According to official documents from the Ministry of Education in Uzbekistan, independent study is intended to allow students to actively and purposefully acquire new knowledge and skills without direct teacher involvement. This is the primary form of student learning activity at the university, which is recommended to be used both during class time, where students study educational materials under teacher supervision, and during extracurricular hours when students can study at times convenient for them. In this case, learning outcomes are determined first by self-assessment and then by teacher evaluation. The author's long-term experience has shown that this approach is beneficial for the majority of students.

Of students who start their studies at university, many are not focused on independent "acquisition" of knowledge. They lack the skills to search for and analyze information, self-study ability is not developed, and difficulties arise in self-organization.[5]

In the literature, researchers of the impact of new information technologies on education explain the introduction of internet technologies into the learning process: "surfing the internet" frees students from the need to take an active role in "acquiring" knowledge and from independent thinking.

According to the author, the problem lies elsewhere – at school, where students are not taught how to work with textbooks (analyze text, compare with figures, tables, and diagrams that explain the text).

Many freshmen lack the skills of extracting and organizing received textual information. [4]The primary objective of a teacher is to transform the mindset and motivation behind learning: to encourage students to study for their own benefit rather than for external rewards, and to teach them how to study independently. In order to achieve this, the author suggests individualizing the learning experience, creating equal starting conditions, ensuring the widest possible range of independent choice in terms of both the level and amount of study material for each student, stimulating active knowledge sharing, collaboration, and mutual assistance in acquiring missing skills and knowledge, while also fostering a competitive, collaborative atmosphere in which students become leaders, striving for greater knowledge and able to explain complex material clearly to their peers, if necessary.[4]

In the realm of pedagogical discourse, we employ a programme-target approach, with the ultimate objective being the cultivation of a knowledgeable and skilled professional. The curriculum objectives serve as the guiding principle and criterion for selecting the content, methodologies, formats, and tools employed in the educational process. Certain educational reformers tend to downplay the significance of the university lecture, viewing it as an archaic practice, often originating from individuals lacking subject expertise or lecturing abilities.[3] However, it is precisely the lecture that serves as the foundation point of the well-structured learning system. A lecture can commence with a graphical representation of the logical framework of the section (or topics), serving as a comprehensive overview review of the educational material. [2] This graphical representation allows for concise summarization, it acting as a valuable guide for students when working with a textbooks. Graphical representations not only contribute to the retention of material, but, more importantly, foster critical thinking skills. Students are tasked with isolating the fundamental learning elements through logical reasoning, creatively determining their significance and classification. This exercise is also beneficial for instructors: it helps to eliminate bothersome omissions during lectures, making it easier to assess students' knowledge during classes and colloquia. Due to the shortage of lecture hours, at the end of the lecture, our students receive a handout (printouts on 2-5 pages), where some educational elements are revealed or individual issues barely touched upon in the lecture are detailed. The student can also receive them at the department, and computer owners have the opportunity to write them to their own flash memory module. The degree of achievement of the learning goal at all stages of learning can be checked using "measurable" learning quality characteristics, or so the so-called "pedagogical tasks". Pedagogy considers them as an effective means of learning, which actualizes the purpose of the cognitive process, promotes the formation of motivation and activates memory processes [1]. The primary objective of the majority of the assessments employed is to determine one or more accurate responses answers from among the provided options, akin to a guessing game. This approach allows for the identification of the initial level of learning, indicating the presence of fundamental concepts and specific knowledge regarding the subject matter. It is noteworthy that even individuals who struggle to articulate detailed responses frequently demonstrate proficiency in these tests. While this level of taciturnity may be acceptable for a medical practitioner in their professional practice , it is not suitable for educators.[6]

To ensure a deeper understanding of the subject, it becomes essential to design assessment tasks that require the identification of logical connections between processes and phenomena, comprehending the sequence of events within the physiological mechanisms, and fostering the ability to generalize.

Therefore, in addition to conventional methods such as lectures, laboratory sessions, and seminars, incorporating logical structure graphs into lecture materials is recommended to effectively manage the

learning process. Handouts provide structured information that is not covered in the lecture or absent from the textbook. Test tasks are used as well.

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