

The Place of The Constructed Devices Designed for the Development of the Student's Creative Activity in Experimental Problems

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Abstract: An important factor in ensuring high efficiency in teaching physics is the effective use of demonstrative experimental problems, educational films, ., Every theory, law, physical phenomena and concepts that are explained theoretically during the training will reach a logical conclusion only after being proven by experimental problems, and will have a strong place in the student's mind

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An important factor in ensuring high efficiency in teaching physics is the effective use of demonstrative experimental problems, educational films, educational posters, and slides. Every theory, law, physical phenomena and concepts that are explained theoretically during the training will reach a logical conclusion only after being proven by experimental problems, and will have a strong place in the student's mind.

While preparing for the training, the professor-teacher chooses a visual tool that is most suitable for the narrative style of teaching, develops methods of effective interpretation of experimental issues. When choosing the available tools, the teacher should take into account their didactic capabilities, the time spent on correcting and demonstrating, and the ability of students to understand the scientific and educational information embodied in the experimental problem.

Usually, experimental and other demonstrative issues related to a specific topic are organized in several options. The experiments shown during the lesson also constitute two to five independent experiments for one lesson. In order for laboratory workers to quickly test these experimental problems and clearly realize important events during training, there should be a description-instruction that clearly and concisely shows the technology of experimental problems and the result to be achieved[1,2].

Such instructions allow the teacher, first of all, to get acquainted with the devices and materials available in the laboratory of demonstration tools in a short period of time, and to choose the most suitable ones for his style. It should be noted that such a list of short technological descriptions should be kept in the form of a catalog, which includes examples of experimental problems by sections of the physics course, types of tools (objective experiments, educational films, educational posters, slides, etc.) and in alphabetical order [3].

The team of the "Physics" department of the Tashkent "Temurbek School" military-academic lyceum of the National Guard of the Republic of Uzbekistan is working on the development of effective methods of using physics during training. The objective experimental problems included in this article were created in the laboratory and workshop of the department. The article also takes into account the needs of physics departments of military-academic lyceums and vocational schools that are newly emerging in our Republic. Technological descriptions of experimental problems can help equip the demonstration laboratory, improve existing equipment, and help students and laboratory professionals realize and rationalize experimental problems during training.

In order to carry out more effective work in this field, our country should have enough specialists consisting of scientific workers and engineers. Education in higher schools is important in training such specialists[3].

Therefore, every physics teacher of military-academic lyceums should not only teach students the basics of science, but also solve experimental problems in creative ways and expand the level of application in science and technology, apply the acquired knowledge to life and open a wide path for their future practical activities. must also be engaged.

All sections of the physics course are of particular importance in this area. When passing each topic of the physics course, for example, "Electric current", the teacher should use such a method that the students visualize the studied phenomenon and create experimental problems.

Only then can students have sufficient knowledge of the basic laws of physics. This requires the teacher to present the training materials orally, as well as conduct demonstration experiments on this topic. In order for the experimental tasks to be carried out during the training process to be successful, the experiment should be methodically properly organized [4].

In order to carry out experimental physics problems, the physics room must be fully equipped with the necessary equipment. Currently, various devices are being released by the respective companies. Higher military education schools are provided with them. But these devices are not without some shortcomings, some of them are produced as a single device or some parts. It is convenient to use these physical devices only for experimental problems that do not require pre-assembly work. In the course of physics, there are such topics, on which it is necessary to use not individual devices, but several devices and devices made of physical equipment. For example, almost all experiments conducted on the topic of electric current are among them[5].

In conclusion, it can be said that we can once again emphasize that the place of the devices designed for the development of the student's creative activity in experimental issues is very large and appropriate.

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