

## ORGANIZATIONAL PEDAGOGICAL CRITERIA FOR DETERMINING THE EFFECTIVENESS OF TEACHING PHYSICS

Shoira Isajonovna Abdullayeva  
Assistant of the Department of Physics,  
Faculty of Television Technologies, TUIT.

### Annotation

This article discusses how the content of physics education in various higher education institutions should be considered today. Therefore, it is necessary to create the necessary opportunities for students who are interested in physics and study it in depth, to better understand this course. This does not require any changes to the specific goals and objectives of teaching, ie for classes and groups in the field of in-depth study of physics, the goals or objectives based on a different principle of teaching are not selected. , but at the same level as the usual study of physics.

**Keywords:** physical phenomena, laws and formulas, expansion or multiplication, teaching materials, independent literature, textbooks, period requirements, pedagogical technologies, physics.

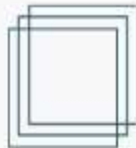
### Introduction

Not only at the expense of expanding or multiplying the studied physical phenomena, laws and formulas, but also for in-depth understanding and study of the study material and in-depth study of the study material using independent literature. This can be achieved through the use of pedagogical technologies that meet the requirements of the time, based on the provision of materials for the winter.

In particular, it is important to take into account the following views of Professor Botir Mirzakhmedov, Doctor of Pedagogical Sciences, on the teaching of physics in these educational institutions: "How to teach physics in academic lyceums and professional colleges." If students know how to derive ten formulas from physics or how to apply them in practice, but do not know the true meaning of physics, then it is irrelevant to write a single mathematical expression. The task of physics education in these educational institutions is not to provide special experience, but to inculcate in students logical thinking. It is necessary to explain to students in a very interesting way the scientific basis of modern technology, the basis of knowledge that everyone needs today.

### Material and Methods

The main purpose of teaching physics at the stage of general secondary education of these educational institutions is to increase the interest of students in life based on the processes that occur in nature. In order to stimulate interest, it is necessary to explain



the material to the learners based on more experience. Therefore, as much as possible, it is necessary to focus on increasing the number of physical experiments and improving their quality in the textbooks of physics education of these educational institutions. Since the organization of physical experiments, and finally the hard and arduous work, the task of renewed physics education in general secondary schools, academic lyceums and vocational colleges is not to prepare students for demonstration experiments, but When placing their physical experiments, the main attention should be paid to the following, that is, the idea, purpose, task, procedure and results of the physical experiment, as well as its important rationale.

Unprecedented advances in science and technology, huge changes in production and daily life lead to the disappearance of traditional professions and specialties. This requires the need to increase the level of scientific potential of the study of physics in these educational institutions. But there is no need for mathematics or formality in the scientific explanation of the basics of physics. Much attention is paid to the application of mathematics in revealing the essence of physical phenomena, but in explaining the essence of physical phenomena it is necessary not to give in to excessive mathematicalization. Formulas never allow the learner to understand the nature of natural phenomena.

In teaching the basics of physics in general secondary schools, academic lyceums and vocational colleges, it is necessary to strive to present the teaching material on a strictly scientific basis. In explaining the learning material, it is necessary to use a number of similar methods that are simple and convenient for learners, provided that the other conditions are the same.

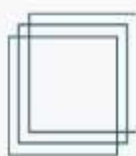
The updated content of physics education in compulsory educational institutions should not be an abbreviated part of physics, or an abbreviated version of the general physics course of higher education. Perhaps the tasks of physics should be distinguished by a broader coverage.

### **Result and Discussion**

In general secondary schools, academic lyceums and professional colleges, a small amount of specially selected educational material from the general physics course is studied. The breadth of the educational material is that in the process of learning many pedagogical tasks must be performed. Therefore, when choosing a teaching material for physics education in these educational institutions, it is advisable to pay special attention to the following points:

- Pedagogical expediency;
- Practical significance;
- Explain the selected material in a way that is understandable to students.

These arguments are the primary considerations, and there are other important considerations. For pedagogical purposes:



- The general educational value of the educational material, ie the development of students' scientific outlook and ability to think logically;
- To explain to students the methods of physics and the basic concepts of physics, quantities and laws;
- They include the formation and development of national universal values and the potential for self-awareness.

Practical significance, the importance of the selected educational material and its necessity in choosing professions and specialties that meet modern requirements, polytechnic significance, the need for conscious use of modern computer technology and household appliances and means of communication.

The scientific content of the selected educational material means the strength (validity) of the selected educational material and the logically correct structure of the content of physical education in compulsory educational institutions. It is understood that the presentation of the selected teaching material in a way that is understandable to learners depends on the level of training of most teachers and the level of achievement of teaching methods, as well as the material base of teaching.

These educational institutions have included in-depth and solid teaching materials in the updated content of physics education, which must be studied by all students, as well as additional material, if necessary, for a better understanding of the material described. can be included.

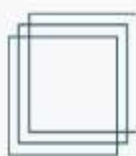
The rapid development of modern technology, the rapid introduction of computer technology in social production, the introduction of significant changes in the content of physical education in these educational institutions, the practical application of physics are of great importance. Therefore, it is important for these educational institutions to show a general polytechnic direction, rather than increasing the application of physics to ensure continuity and integrity in the teaching of physics.

In the context of physical education in compulsory education institutions, the main attention should be paid to the opportunities that provide educational results as a subject of physics.

The importance of mathematics in physics is well known. However, it is necessary to turn to mathematics only if it reveals the full and deep essence of the phenomenon studied in the teaching of the content of physics education in these educational institutions.

### **Conclusion**

There is no need to over-mathematically describe the physical phenomena studied in the context of physics education in general secondary schools, academic lyceums and vocational colleges. It is expedient to follow the following opinions of Doctor of Pedagogical Sciences, Professor Davron Shodiyev:



“The use of physical formulas never gives learners the opportunity to learn about natural phenomena.

The derivation and memorization of formulas must be understood in the context and meaning of the physical phenomenon, which is secondary, mainly in general secondary schools, academic lyceums and vocational colleges. The main purpose of this example is that today's secondary schools, academic lyceums and vocational colleges are over-mathized in physics textbooks. In the teaching of the content of physics education in general secondary schools, academic lyceums and vocational colleges, often even a simple mathematical structure and calculation prevent the understanding of the physical nature of the specific phenomenon being studied, because mathematics physics is a tool, not a content. This weapon should be used only when necessary.

### **REFERENCES**

1. Moscow: "School Press", 2004.
2. Yuldashev J., Usmanov S. Basics of pedagogical technology. - T., «Teacher», 2004.
3. Saidakhmedov N. New pedagogical technologies. - T.: «Finance», 2003.
4. Baubekova G.D., Khalikova G.T. Education: experience, problems, perspectives. - T., 2002.
5. Ziyomammedov B., Abdullayeva SH. Advanced pedagogical technology: theory and practice. Methodical manual based on the lesson "Fundamentals of Spirituality". - T., 2001.
6. Ziyomammedov B., M. Tojiyev. Pedagogical technology is a modern Uzbek national model. Tashkent "Lider press" 2009.
7. Tajiyev M, Alimov AY, Kuchkarov DU Pedagogical technology - application to the educational process. Tashkent "Tafakkur" 2010.
8. Tojiev M., Salahutdinov R., Barakayev M., Abdalova S. Modern information technologies in education. - T., 2001.
9. Modern educational technologies: content, design and implementation. Express guide. - T., 2001. TESIS project.
10. Yuzyavicheniye P.A. Theory and practice of modular training. - M.: Kaunas, 2000.
11. Monaxov V.M. Axiomatic approach to the design of the ped. technology. 2000.
12. Clarin V.M. Pedagogical technology in the learning process. - M.: Znaniye, 2000.
13. Pedagogicheskiye tekhnologii: Chto eto takoye i kak ix ispozovat v shkole. Pod red. T.I. Shamovoy, P.I. Tretyakova. - M., 2000.
14. Farberman B. L. Peredoviye pedagogicheskiye tehnologii. - T.: Fan, 2000.
15. Sachencho I.P. Diagnosis of the development of pedagogical creativity of the teacher. - Pyatigorsk, 2002.