



IMPROVING THE PROFESSIONAL COMPETENCE OF TEACHERS OF SCHOOLS OF GENERAL EDUCATION THROUGH ISSUES FROM PHYSICS

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ABSTRACT: - Currently, great attention is paid to the technology of training in the formation of professional competence. The teaching technologies developed and used by the teaching staff of higher educational institutions are a component of the educational system of decision-making and upbringing of the future specialist's professional competence, contribute to the initial creation of a professionally significant base for mastering the profession, the gradual formation of theoretical, practical and motivational training and competence for the implementation of professional. Therefore, improving the professional competence of teachers of secondary schools through issues from physics is an important and urgent issue.

KEYWORDS: Quality of education, elementary particles of physics, professional competence, improving the quality of teaching physics, issues.

INTRODUCTION

The decree of the president of the Republic of Uzbekistan dated 19.03.2021 "on measures to improve the quality of education in the field of Physics and the development of scientific research" PP-5032 approved a program of comprehensive measures to improve the

quality of education in Physical Sciences in 2021-2023 and ensure the effectiveness of scientific research in the field of physics. The following were defined as its main tasks: improving the quality of teaching physics in schools, improving textbooks and teaching

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aids; developing a system for training, retraining and professional development of personnel in Physical Science, in particular, teachers of schools in rural areas; wide introduction of information and communication technologies in the educational process; increasing the level of coverage of young people with.

Physics studies objects and various phenomena — from elementary particles to galaxies. Physics belongs to the field of Natural Sciences and allows you to acquire qualitative and quantitative knowledge about nature

The study of physics develops the cognitive and logical thinking skills of people. In today's society, it is a requirement of the period for every person to have quality knowledge of physics in order to live a successful life. Physics is the basis of scientific and technological progress and natural–scientific knowledge.

All areas of our country, such as the success of the 21st century, the effective use of Natural Resources, the solution of environmental problems, the development of space, the potential for defense, the development of technology and energy, the creation of materials for science sources and modern technologies, depend on the level of physical science and physical education.

Socio-economic activity of our motherland without having knowledge in accordance with the requirements of the period from physics.

One of the most important indicators of education at the moment, its quality, which, according to international experts, depends on the organization of the educational process. In recent years, a number of developed countries are gradually focusing more on the field of Exact and natural–scientific Sciences in contrast to their views on the education system. But in recent years, there has been a

decrease in the quality of accurate and natural–scientific education in our country.

The trend of such a decline in knowledge is gaining roots around the world and is gaining recognition from scientists that it will eventually lead to an educational crisis. Today, one of the factors that negatively affects the education of physical science in the system of continuing education, including in general secondary schools, is considered to be the small amount of hours allocated for its study. I believe that it is necessary to establish a study on the principle of integrity and continuity by multiplying the amount of this hour in the section of classes.

Muhim muammolardan yana biri–fanlararo ichki bog‘lanishning yetishmasligidir. Ya’ni, fizikani o‘rganishni amaldagi 6–sinfdan emas, 7–sinfdan boshlash maqsadga muvofiq shunda fanlararo o‘zaro ichki bog‘lanish yuzaga kelib, uzluksiz va uzviylik prinsipi asosida tayyorlangan fizika ta’limi o‘quv dasturi va darsliklari yaratiladi. Natijada, umumiy o‘rta ta’lim maktablarida fizikaning mexanika, molekular fizika va termodinamika asoslari, elektrodinamika, kvant fizikasi elementlari kabi bo‘limlari o‘quvchilarning bilish imkoniyatlariga moslashtirilgan ma’lumotlar o‘rganiladi.

Bunda fizikaning har bir bo‘limi “o‘z” tushuntirish apparatiga ega bo‘lib, ko‘pchilik fizik hodisalarni sifatli qarab chiqishda ularning ko‘pincha takrorlanish imkoniyatlarini chegaralaydi. Natijada moddiy olam jarayonlari va ob’ektlari o‘rtasidagi tabiatda mavjud ichki bog‘lanish o‘quvchilar uchun aniq bo‘lmagan bo‘lib, ular diqqatidan chetga qolishga sabab bo‘ladi.

From the practice of working primarily with students in grades 9-11, it turns out that

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mathematical difficulties arise in solving problems from physics.

These difficulties arise from a series of reasons such as: for example, from physics, the study that is necessary when solving a problem is the degree to which it is necessary, even if the material has not been studied or studied from the mathematics course due to the lack of processing, students cannot apply this material from physics in solving a Firstly, this problem lies in the fact that the interdisciplinary connection between “physics and mathematics” was not taken into account, and secondly, the correlation between the content of educational programs in these disciplines in the study of topics was left out of focus. In mathematics, the following topics can be distinguished:

- when solving problems with a right angle;
- when performing actions on vectors (addition, subtraction, number projectiles of vectors on the coordinate axis, in understanding the vector module); – when solving one and two unknown equations;
- the skill of constructing graphs in the form of the following bindings (linear, re – proportional, square root) and their;
- in trigonometric substitutions, in the use of trigonometric coefficients;
- in work on calculating the length of a circle, its surface and the size of From the analysis of Test control, it turned out that most graduates of physical eventsn have difficulties in processing information in the form of a table or graph in the explanation, in performing tasks in the explanation of physical phenomena in determining the description of the change of physical magnitudes in the occurrence of various processes. An important condition for achieving a high level of

competence in teaching physics is the absence of stable textbooks.

The essence of the problem lies in the fact that the current textbooks of the period tal does not meet the requirements of the period, is not interesting to readers, does not reflect new ideas about the universe and technology, does not help students to realize their personal capabilities.

There is also a personnel problem, and graduates of Higher Education do not have pedagogical knowledge and skills in the necessary pedagogical institutes in the pedagogical direction. Physics and pedagogical specialists are unable to meet the requirements of the educator and teacher of Physical Science in general secondary educational institutions that are not capable of intellectual growth.

As a result, there are not enough physics teachers in general secondary schools. Goals and objectives of the concept. For students, the study of physics is required to be an understandable and internally aspirational process.

To do this, it is necessary to master the universal research techniques of the surrounding world, develop mechanisms that help the reader and teacher who perfectly master the language of physics, who understand the essence of the principles and basic laws of this science.

General secondary education schools physics education is not only necessary for a professional who has acquired physics as a professional profession in the future, but also for any cultured person who can confidently accurately and effectively tell and think about his future in advance. Teaching and learning physics provides students with training to apply their knowledge from physics to practice

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and in other areas. It also affects the content and teaching of other subjects, the intellectual training of students.

The purpose of this article is to help bring the level of physical education of our country's general secondary schools to the level of educational development through matters from the Commonwealth and developed countries General secondary schools physics.

Their sentence includes: improving the content of the educational program of physical education in accordance with the requirements of society and educators; – ensuring the acquisition of basic knowledge for each student, providing an automated system of diagnosis for teachers; - providing demonstration and laboratory equipment and equipment in the physics room and laboratory of general secondary schools, optimizing the activities of teachers and;

with the help of the mechanism for improving the quality of professional competence of physics teachers, their material and social support, achievements of pedagogical science of physics education of the world and Commonwealth countries and modern educational technologies, the creation and implementation by them of their own personal pedagogical approaches and author's programs;

–constantly conducting internships, seminars, master classes for physics teachers during the academic year on the grounds organized on selected questions;

- demonstration of physical experiments on blocks; - conducting laboratory work on classes;

Conducting practical work in Physics for grades 9-10-11;

– application of modern educational technologies and resources (by their types)

- method of solving quality tables on all subject blocks;

- method of solving combination problems;

- methodology for outlining some complex topics in the physics course;

–conducting master classes on identifying teachers on popularizers of the school physics course and explaining complex topics on mastering methods.

The main areas of implementation of the concept. To increase their interest in the study of physics, it is necessary to organize a person-oriented education of teaching: - selection of favorable ones among alternative teaching traditions; science;

- intelligibility, intelligibility of educational standards;

- differentiation of personality-oriented educational disciplines;

-interdisciplinary integration. In physics teaching, it is necessary that design and research methods are the main methods, the tasks of which consist in the development of students ' competence. Design in conjunction with physics education

- approximately close to practice in everyday life, training forces the student to work creatively independently in solving problems.

The project is a sufficiently developed important action organized by the pedagogue in laboratory conditions.

As a result of working with the project, the following: communicative, social and scientific competencies are formed. Students ' work independently: when filling out generalized tables, when performing physical practicum

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work and frontal laboratory work, in the process of solving issues, it is necessary to focus on strengthening and independently reproducing the main theoretical material.

In the course of the lesson, great attention should be paid to the independent work of students with the textbook. In the process of working with the textbook, it is necessary to understand the phenomena and processes studied, to understand and see the logical connection from the inside of the material, to form the skill of separating the main material from the text.

The main educational material should be mastered by students in the course of the lesson. This situation, on the other hand, requires the teacher to always organize by thinking about the methodology for taking classes.

In the upper classes, it will be appropriate to describe the educational material in the form of a conversation or in the form of a lecture by promoting educational problems. Extensive use of educational experiment (demonstration experiments, frontal laboratory work, including short-term) independent work of students.

The main time of the lesson is devoted to strengthening and explaining a new topic, and it is necessary to improve the methods of control and repetition of students' knowledge.

All this will help to solve the base task — to increase the efficiency of the physics lesson. If the problems of this concept are presented in detail in a positive way, the president will have the opportunity to fulfill the tasks set before the physicists.

And the concept of "competence" is a constantly growing classification of an

individual, the ability to solve problems that arise in real life situations, opportunities to mobilize his knowledge, learning and life experiences, values and interests for him.

Drawing conclusions from these points, it was determined that in the formation of the professional competence of their teachers, they should have a number of the following skills:

1. In the process of its activity, it was determined that it is important for teachers to develop and influence the activity, feeling, behavior of young people by showing an example and example;
2. A system of accounting for the selection of issues from physics for each activity, its complication and ensuring its connection with the previous and subsequent ones, the training game, labor assignments and the young opportunities of young people, the prospects for their upbringing and development has been determined;
3. The pedagogical process was planned using a set of educational and educational tools, covering work with the teaching team and youth;
4. It was determined to organize their place of work, prepare the necessary manuals and documents, keep them on the basis of the requirements given.

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