TEACHING PHYSICS IS AN IMPORTANT FACTOR FOR FORMING A SCIENTIFIC WORLDWIDE

Bahodir Khasanovich Mamatkulov
JizPI, senior teacher, mamatkulovb2020@gmail.com
Zayniddinova Nargiza Abulqosim qizi - *JizPI, student.*
ZayniddinovaN@ gmail.com

ABSTRACT

This article is dedicated to the role of physics in educating the younger generation. The article states that the teaching of physics in educational institutions plays an important role in shaping the scientific worldview, and that the development of fundamental sciences is a modern requirement.

Keywords: Worldview, independent thinking, observation, physics, fundamental sciences, problem solving, pedagogical skills, reproduction, transformation.

INTRODUCTION

Today it is important to consider the teaching of physics as an important factor in the formation of a scientific worldview. Because the teaching of physics is the study of the structure of the universe with its components.

Get to know, understand the essence of physical processes in nature means to explain. [1] In addition, today the achievements of physics have found application in almost all spheres of human life, and technology and technology are developing so rapidly that sometimes not only technicians, but also ordinary people have enough knowledge and opportunities to understand their essence and apply them in life. requires that they be. That is why at the same time society is such a modern need to improve the teaching of fundamental sciences in higher education.

In particular, when teaching physics, it is advisable to take into account the following important factors related to the development of society:

1. In the future, computers will penetrate into all aspects of life.
2. Millions of jobs are related to lasers and robots.
3. The field of human activity, including health, hygiene, beverages, construction, military engineering, the creation of scientific equipment, repairs and the introduction of new, developing modern technologies.
4. Nanotechnical devices are popular in all spheres of life.
5. In the near future, quantum computers will enter and exchange information the speed is billions of times faster than it is now.
6. Composite with desired properties instead of natural minerals the use of materials will increase dramatically [2].

LITERATURE ANALYSIS

The modern period of human development is the period of modern technogenic development, which has a number of unique features. This is especially true of science, because science is an important factor in understanding the universe and determining achievements and successes in all areas of human activity.

Therefore, it is an important aspect of human development in today's era of anthropogenic development.

Today, science is seen as an interconnected and interconnected part of all aspects of culture. In addition, the unity of natural science and humanitarian culture is recognized, because all humanitarian phenomena reflect the “print” of natural science culture through a worldview, feeling and understanding of the world that is unique for its time. the field of natural sciences is a "prelude" to a certain historical period.[3]

Back in 1932, E. Schrödinger, a great representative of science and culture of the 20th century, wrote the book "Does Science Depend on Society?" All natural sciences belong to the universal culture.

Therefore, the teaching of physics is an important factor in the formation of a scientific worldview. Today, new methods of teaching this subject and improving the pedagogical skills of teachers are being developed and implemented.

In particular, Tursunova I.G., Eshniezova Yu.A. and S.Kh. on the use of innovative methods in education. In the research work of A.

Durdyeva presents scenarios for determining the scientific and educational content of demonstration experiments on the topic "Electric current in various media" and experiments on solving problems, explains effective technologies and methods for teaching students physics.

DISCUSSION

Worldview is a system of dialectical views and beliefs that determine the development of nature, society, thinking and the content of individual activity. Within the framework of this system, the main components are beliefs based on socio-ideological, philosophical, economic, natural-science, spiritual-moral, aesthetic, legal and environmental knowledge.

The presence of a certain worldview is the environment of a person, social

relations, labor activity and the production process, the establishment of a certain relationship to the subjects, as well as a complete understanding of the social duties of the individual and a sense of responsibility for their implementation. The outlook of the individual is formed as a result of consistent, systematic, continuous and purposeful education, his active participation in the process of social relations of various directions and content, as well as self-education.

In shaping the worldview of the younger generation, it is important that they thoroughly master the basics of natural, social and human sciences, which are taught in educational institutions [4].

As mentioned above, physics is a basic science in the formation of the scientific worldview of students, and physics is its tool. At the same time, the worldview and understanding of nature students are realized in the process of studying the laws of physics, and secondly, in the process of forming a psychological and pedagogical base in teaching and educating them. The formation of a worldview requires great pedagogical skill on the part of the teacher.

It involves the use of a variety of methods and new innovative pedagogical technologies in the educational process. The results achieved in the education system and its networks can have different indicators of quality. Various criteria have been developed for their identification, analysis and measurement. In connection with the development of cognitive abilities of students, V.P. Bespalko singled out four levels of educational results and highlighted their importance as follows:

Level I - Acquaintance: Students among other similar objects depending on their ability to understand and distinguish that this object is different.

Acquaintance at the familiar level is often limited to general opinions about the object of study, while in the case of reasoning, conversations are limited to “yes-no”, “or”.

Level II - Reproduction: At this level, students are connected with the object of study, learn the basic concepts at the level of the ability to verbally describe actions, analyze various actions and various activities.

Level III - Fully Assimilated Knowledge and Skills: students process learned information to solve some classroom work to be able to put into practice and receive objective new information.

Level IV - Transformation: knowledge, skills and abilities that students acquire - knowledge that is able to solve a variety of complex problems, being able to apply their skills [5].

Physics helps students to observe, think, with an interest in environmental problems and how to solve them, understand the possibility, explore the relationship of events and understand them. This is the only way to educate young people who are able to independently approach any problem and express their opinion independently.

It should be noted that those who now consider physics to be a special science necessary for chemistry, biology, technology, materials science and other engineering specialties, first of all, it should be a source of knowledge, as well as perform a developing and educational function, and this is equally necessary for everyone. should not be forgotten. In the field of physics, interaction consists in an objective study of the connections between them, it is important to remember that the study leads to the discovery of their essence.

Lab and problem-solving sessions are also important for deep learning and developing solid skills.

Because problem solving is an integral part of the process of teaching physics, in which theoretical knowledge is strengthened in all respects, physical representations are formed, physical representations are developed, skills and abilities to apply the acquired knowledge in practice are formed, developed and improved. . Giving new information by solving problems in physics, creating problem situations and tasks for students, developing formed practical skills and abilities, testing the strength and breadth of students' knowledge, consolidating, generalizing and repeating theoretical material, introducing students to technical achievements can develop creative abilities.

Problem solving also teaches students to think and act independently. In the laboratory, the essence of the process and patterns are fully understood, realistic ideas are formed in the minds of students.

CONCLUSIONS

• The presence of a certain worldview is the human environment, social

attitude, work activity and the production process, the establishment of a certain relationship to the subjects, as well as a complete understanding of the social duties of the individual and a sense of responsibility for their implementation.

• A person's worldview is formed as a result of consistent, systematic, continuous and purposeful education, his active participation in the process of social relations of various directions and content, as well as self-education.

In shaping the worldview of the younger generation, it is important for them to thoroughly master the foundations of the natural, social and human sciences, which are taught in general educational institutions.

• Physics is the basic science in shaping the scientific worldview of students, and physics is a tool for its formation.

• The formation of a worldview requires great pedagogical skill on the part of the teacher.

• Today, there are many methods and tools to help teachers improve their teaching skills, including interactive methods and multimedia tools.

• Today, science is seen as an interconnected and interconnected part of all aspects of culture. In addition, the unity of natural science and humanitarian culture is recognized, because all humanitarian phenomena reflect the “print” of natural science culture through a worldview, feeling and understanding of the world that is unique for its time. the field of natural sciences is a "prelude" to a certain historical period.

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