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# THE IMPORTANCE OF COMPETENCE IN WORKING WITH INFORMATION IN PHYSICAL SCIENCE

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## **Abstract**

The article will talk about the competence and its importance in working with information in teaching physics. The relevance of the topic is now in the importance and relevance of physical science.

**Keywords:** physics, innovations, education, teaching, competence.

### Introduction

The study of innovations in the conditions of independent Uzbekistan, its introduction into the educational process is based on the provision of ready-made information in connection with the issues of reforming the educational system from the traditional type of teaching, which teaches students to search, to find information on their own it is justified by actions on the way to the transition to the educational system. Accordingly, the need for understanding the essence of such concepts as the pursuit of new knowledge, innovation, innovation processes increases. President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Supreme Assembly of December 29, 2020 In his address, he said: - ... if we look at history, physics science in the creation of almost all discoveries and technologies in the world we see that there is a fundamental basis.

It is known that the implementation of advanced pedagogical and new information technologies in education not only increases the effectiveness of training, but also plays an important role in the education of an independent and logical thinking, comprehensively harmonious highly spiritual person through the application of achievements of Science in practice.

Currently, interest in the application of interactive methods and information technologies in the educational process is increasing day by day. One of the reasons for this is that until then, in traditional education, students were taught to acquire only ready-made knowledge, while the use of modern technologies teaches them to search for the knowledge they are acquiring on their own, study mustail and think, analyze, and even bring the final conclusions themselves. In this process, the teacher creates conditions for the development, formation, acquisition and upbringing of the individual, and also performs a managerial, directing function. Today in education, methods, technologies such as "brainstorming", "attack of thoughts", "networks", "Sinkvein", "BBB", "fifth plus", "6x6x6", "discussion", "role-playing game", FSMU are used. Therefore, the role and role of modern teaching methods – innovative

technologies in the training of qualified professionals in secondary schools, teaching them to think independently, teaching creativity are of great importance. knowledge, experience and interactive techniques on pedagogical technology and pedagogical skills ensure that students are educated, mature. It should be noted that it is necessary that the pedagogue, who gives knowledge to the student-youth at the level of the requirements of the time, first of all, himself is armed with such knowledge and is able to apply them in practice. In the education of the native language, attention is paid to the issue of teaching the student to think, to understand the opinion of others and to be able to competently articulate this idea both orally and in writing, and the main place is occupied by a well-developed literate person with independent thinking, developed speech culture.

Where to start work? The pedagogical teacher who conducts classes should carefully study the DTS and curriculum based on the competence approach in this discipline. In this case, it is necessary to divide the competencies of the base and science, which must be formed in each educational discipline, into classes, taking into account the age, psycho-physiological characteristics of students. Currently, this work is brought in training programs. But these competencies are given in the form of a semi-annual and year-end result. Accordingly, it will be necessary for the pedagogue to show them the calendar theme is ground up in the plan. At the same time, students will have to choose an effective method, method and technology used in the formation of competencies.

When forming these competencies in students, it is necessary to take into account their interest, need. And for this, conducting a pedagogical diagnosis by the teacher gives a good result.

At present, pedagogical diagnosis is carried out in the following areas:

- didactic diagnosis in which the knowledge, skills and abilities of students
- degree of possession;
- and in the spiritual and pedagogical diagnosis, the need, personality and self-control of a student who is a subject of the educational process are studied;
- in socio-pedagogical diagnosis, the environment in the Family, School, outside the school is studied, which affects the upbringing of the student;
- in the management diagnosis, the organization of the educational process at school and in the classroom, the qualifications of the pedagogical team, the availability of methodological services and technical means (including the equipment of the science room) are studied.

In order for the diagnoses to be convincing and full-fledged, they must meet the following requirements:

- all participants in education (parents, subject teachers, classmates) should be involved in the diagnostic work;
- diagnosis should be carried out by as many different methods as possible-Survey, interview, observation, test, self-diagnosis;
- there must be feedback and the evaluation process must be constantly discussed;
- personal characters must be taken into account. In this case, the result of the conducted diagnosis should be compared with the previous one and positive(negative) changes should be recognized;
- systematicity, diagnosis should cover the entire academic year;

- all students, their parents, professionals and others must be exposed to what students know, what skills and abilities they have.
- it is advisable to carry out the initial diagnosis in the first half of the school year in classes where the subject of study begins anew, and then at the end of each quarter. The rest of the classes are held quarterly;
- methods for studying the educational need of students. One method is observation. Observation work should also be carried out in the lesson and in extracurricular times. This also takes into account which subject books he will read the most, what circle he will attend, how he will behave when he goes on a trip, goes to a museum, is at exhibitions;
- it is necessary to identify in the process of observing the needs of the student in knowledge, skills that are part of the base competencies, together with his interest and approving activities. For example, working with information needs competence the reader asks where additional information on physics can be obtained. Interested in watching experiments-shows. Chooses to experiment as homework.

Diagnosis sheet.

In order to increase the reliability of the diagnosis results, students are advised to fill out a self-diagnosis sheet. With the help of their parents, the reader fills their places regarding Knowledge, Skills, Qualifications and practice practices related to the base competencies written on these sheets.

After determining the interests of the student, the needs established in the base competence, the types of activities that the student prefers, the teacher is faced with the task of how to fulfill these requirements. The introduction of a competency approach to the physic and the improvement of state educational standards for all educational stages in accordance with the level of international requirements and the establishment of a certification system eliminate existing shortcomings in our educational system, increase the effectiveness of physic education our independent Uzbekistan, provide quality personnel, scientific and pedagogical personnel help to ensure the fulfillment of such responsible tasks as capacity building.

For the first time we find the word physics in the works of the Greek philosopher Aristotle (known in the East as Aristotle, who lived between 384 and 322 BC). Aristotle-in his book entitled Physics-had determined the field of study of physical science. Physics-in Greek - means nature. He studies the General Laws of natural phenomena.

From the time when Physics was being studied as a science, its teaching methodology also began to take shape. Physics and the methodology of its teaching should be studied together with the stages of development of society. Because with the development of society, it puts in front of Science the solution of new problems. In primitive, slave-owning and feudalism societies, when there was a need for mainly mechanical devices and equipment to increase production efficiency, with the advent of capitalist production relations, mechanical devices become incapable of increasing production efficiency.

As a result, the need arises to create thermal machines, powerful techniques and technological processes. To date, the control of production processes through computer equipment in an automatic way remains a vital necessity.

This means that the science of physics and the methodology of its teaching will also expand and improve in keeping with the development of society. The science of physics is considered the theoretical basis of all natural sciences and is a decisive factor in the development of modern technical and technological processes. Just as well as the science of physics

it is also entering the field of socio-humanitarian Sciences. As a result, the content of physical science, its teaching methodology and tasks are also expanding. The methodology of teaching physics (Foo) has three main subjects::

- 1. For what purpose is physical science passed in Higher, Secondary special and general educational schools?
- 2. What is taught in physics?
- 3. How is the science of physics taught?

The subjects of FO'U science are economic, social and Political of society with the change in their needs, its content and purpose also change.

The following main goals are pursued from teaching physics:

Graduating from a higher educational institution is awarded a bachelor's and master's diploma young professionals should be able to think independently, having comprehensive knowledge and culture. The performance of this task is partly the responsibility of FO'U science. FO'U performs the following main tasks in the process of education and training:

- 1. To acquaint future, physics teachers with modern pedogogic methodology, to teach them to use visual aids, OVD.
- 2. Determination of the content of Physical Science in higher, secondary special, secondary schools and in what sequence it is carried out.
- 3.Ensuring the unity and connection of practice with theory in the process of teaching physics.
- 4. Achieving the continuity of education and upbringing in the process of teaching physics.
- 5. Showing the interaction of physical science with actual problems of technology, production and industry.
- 6.Establishing the interaction of physics with other sciences (mathematics, chemistry, biology, economics).
- 7. To show what methods, visual aids and the use of Fire are effective in the educational process.
- 8. It consists in determining in what order historical documents should be used in teaching physics.

The above-mentioned tasks of Foo are conditional, and with the progress of society, it becomes richer and better.

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