

## THE SIGNIFICANCE OF CHEMICAL EXPERIMENTS IN TEACHING CHEMISTRY

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**Annotation.** This article is about the study of the features of the educational system in developed foreign countries and its implementation, the results expected from it, the teacher's ability to learn modern education and deliver it to students. stated.

**Key words:** innovative technologies, that is, interactive methods, pedagogical and information technologies, experiment, chemicals, equipment, chemical reactions

As the President noted, "Introduction of new information and pedagogical technologies into the educational process... raising the quality of the educational system to a completely new level is an urgent task of today.

The results of the study of the features of the educational system in developed foreign countries and the analysis of the achievements in this field allowed us to determine the following: the determination of the content of education on the basis of a social order serves as a foundation for the comprehensive development of society. This creates conditions for a person's embodied development and manifestation of their potential.

One of the important tasks facing the educational system is the training of specialists who have the ability to create technologies that can withstand competition in the context of the expansion of production possibilities and the growing need for high-quality, beautiful, cheap products.

The knowledge of every student is not satisfied with what he heard, but he remembers it more when he does it in practice. Therefore, the use of chemical experiments in the teaching of chemistry in secondary schools is of great importance.

A chemical experiment is a source of knowledge about substances and reactions, and it is important to increase students' knowledge and interest in the

lesson, as well as to form the imagination of being able to apply their chemical knowledge in practice.

At the time when the science of chemistry is making great progress, the desire of young people in our Republic for knowledge and innovation is very high. Therefore, it is necessary to increase the theoretical level of teaching chemistry at school and strengthen its practical content. The role of chemical experiments is one of the main factors of ensuring the success of chemistry education.

In the course of education, various experiments, laboratory works, trainings with technical tools and equipment are held. It is important to strengthen the students' knowledge about the objects and phenomena of the surrounding objective existence, their shape, size, composition, structure, change and development laws, and to create relevant skills and competencies.

Today, the interest and attention to the use of innovative technologies in the educational process, i.e., interactive methods, pedagogical and information technologies in the educational process, is increasing day by day, one of the reasons for this is that until now while in traditional education, students are taught to acquire only ready-made knowledge, modern technologies allow them to search for the acquired knowledge by themselves, study and analyze it independently, and even draw their own conclusions. teaches them to release. In this process, the teacher creates conditions for the development, formation, learning and upbringing of the individual, and at the same time performs the functions of management and direction. In the process of education, the student becomes the main figure.

The correct use of the experiment as a means of learning the basics of chemistry in high school allows the chemistry teacher to successfully solve some of the most important educational and educational tasks, namely:

- a) introducing students to each substance itself, i.e. the name, properties, where it is produced, physical properties (color, reaction to temperature, smell) and the changes that occur in them - clear and understandable knowledge for students to give
- b) to reveal the connection between substances and phenomena in the whole world, the importance, useful properties, and fields of use of substances - to create skills and competences in students;
- c) to explain the chemical bases of modern chemical production, including the fact that there is an element of chemistry in any manufactured product - to expand the level of polytechnic students;

g) formation of training and skills that students will have in life, in chemical laboratories and in chemical production, which allows to prepare students to some extent for choosing their future professions.

- Laboratory work,
- practical training and
- experiment in the school chemistry course to students in three main directions
- the doctrine of chemical composition,
- chemical structure and
- allows to understand and see chemical processes.

Experimental work in chemistry is the main link in the formation of the element of scientific worldview in secondary schools.

The peculiarity of the chemical experiment is that the students, on the one hand, are concrete, and on the other hand, the collision of abstract research objects. In laboratory work, the student learns not only the external causes of physical changes, but also their unique structure and properties of chemical properties.

Laboratory and practical works allow students to form basic experimental skills such as chemical substances, equipment, conducting chemical reactions. The overall structure of the experimental program should be focused not only on memorization, but also on explaining the principal issues of the object of study. Only then will students express the relationship between the structure and properties of matter.

Chemical experiment is an important tool and method of chemical education. The experiment not only equips the students with new knowledge, understanding, skills and abilities, but also allows them to check the validity of their knowledge and to understand the educational material more deeply. It allows making connections with life and preparing students for practical activities in the future. The issues of using chemical experiments in chemistry lessons have been well studied by methodologists. Today, interest in the issue is increasing. First of all, this is related to the sudden change in the content of the educational subject. School chemistry experiment is divided into demonstrative and students' work.

- Students according to the purpose and method of organizing the experiment
- laboratory work,
  - practical training and
  - is divided into home experiments.

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