METHODOLOGY OF TEACHING CHEMISTRY.

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Abstract: Since the independence of the Republic of Uzbekistan, we have witnessed a sharp increase in the need for qualified and mature specialists. Educating independent-thinking young men and women starting from school is one of the urgent tasks of this day. The young generation not only knows a certain amount of knowledge, but also possesses the spirituality and enlightenment typical of the builder of an independent state, and its attitude to work and behavior should be admired by all.

Key words: Chemistry, teaching methodology, modern pedagogical technologies, education.

In our country, great privileges are given to the teacher and the education of the young generation. For this reason, it is necessary for higher education to accept young people who are educated, spiritual and have a unique mindset of the Uzbek nation, to arm them with knowledge and to raise them to the level of a great person in the highest sense. The service of science teachers is great in doing this. The teacher should be a well-rounded expert in chemistry. In addition to chemistry, chemical knowledge and practical methods, it is necessary to know the psychology of children depending on their age. He must perfectly master the methods of implementation of all stages of advance education. He should learn the didactic foundations of the subject he teaches, take into account the general methods of imparting knowledge to children and convey knowledge based on his life experience. The teacher must constantly improve his knowledge, that is, his pedagogical technologies acquire, the educational process should try to perfect. Because if the teacher stops in his research, the next day he will have a stereotyped thinking and will be removed from the group of people with a high level of desire, and the respect for him will decrease among the students, and the children will begin to imitate and desire him a teacher should fill it with his own experience without copying the experiences of others, and then the learning process will be perfect, because everyone has his own style and personal characteristics. First, the main tasks of the study process are considered.

Then the methods of organizing the learning process, teaching tools, the form and methods of scientific organization of the teacher's work are considered. He

should know methods of solving chemical problems, teaching methods, etc. Therefore, they should do coursework and work independently in pedagogical practice. When teaching styles, it is necessary to make excursions to schools, academic lyceums, vocational colleges. The organization of special courses and internships from special courses is also of great importance. The development of science and technology increases the interest of students in the flow of knowledge and the wave of events. If we look at it from today's point of view, it is necessary for students to have high cognitive activity, good intellectual activity and be able to think independently. School teachers develop such qualities in students. It is the duty of every pedagogue to work responsibly in such an honorable work for the development of our independent country and for our future generation. Solving such a responsible task depends on the method of arming students with deep and solid knowledge, interest in science, independent work and thinking. The more any specialist pays attention to the methodology of his work, the greater results he will achieve. The main teaching method of the teacher's work is the method of teaching and educating students. The basis of the chemistry teacher's work is the methodology of teaching chemistry.

The methodology of chemistry, like the methodology of teaching other subjects, in its essence, addresses three main issues:

goals and tasks of educational work;

the content of this work;

determines the nature of the process of educating and educating students.

In his work, the teacher is obliged to perform the duties of director, actor, editor, organizer, if one of them is not present, it will have a negative effect on the learning process. In the chemistry teaching methodology classes, university intellectuals do not impart new knowledge, but teach methods of conveying student knowledge to students. Methods of chemistry can be distinguished from general pedagogical directions, therefore, the methodology of teaching chemistry tries to fulfill the following three tasks:

Choosing the right amount of evidence for the school chemistry textbook;

Choice of chemistry teaching methods;

Teaching students to use books, films, radio, television and other tools to improve their knowledge through teacher activity. The conclusions of chemistry require close connection with life and philosophical interpretation. Teaching chemistry should gradually create a chemical outlook in students. The role of the chemistry teacher:

- for the future of our great independent Uzbekistan, students will be able to consciously and thoroughly master the basics of modern chemistry;
- to acquaint students with the scientific foundations of chemistry necessary for explaining the surrounding nature and using it;
- paying special attention to the development of students' characteristics of a correct, materialistic view of nature;
- educating students to be able to use the chemical experiment, which is one of the means of scientific knowledge;
- it is necessary to train students for work - to prepare them for future practical activities;
- to increase students' interest in chemistry;
- to teach students to be independent and seek knowledge;
- formation of educational and skills that students will have in everyday life, in life;
- involvement of students in socially useful work;
- explain the importance of chemistry in our life;
- bringing to the level of physically strong, mentally mature people;
- concrete acquaintance with the periodic law of elements and the periodic system is the main content of the chemistry course;

Teaching chemistry is a powerful means of educating students, teaching chemistry makes students hardworking and love their country, deeply interested in science, having the ability to think independently about scientific subjects, and creative activity. Shows, should educate in a way that looks at the basic concepts and laws in chemistry from the correct point of view. Among the methods of teaching chemistry, it is possible to use methods specific to teaching chemistry, as well as general pedagogical methods. For example, an experiment and explanation problem might be:

a) experience first, then explanation;
b) first explanation, then experience;
c) explanation and experience together;
g) Homework is assigned, showing the experience and then explaining.

In the development of new methods of teaching chemistry, it is necessary to use general pedagogical research: pedagogical observation, interview of the researcher with the teacher and the student, questionnaire, pedagogical organization of the observed lesson, experiment and offer it to many people. A chemistry teacher should be an ideologically formed person, have a deep knowledge of science, be able to correctly apply the basic theoretical knowledge of education and training in

practical activities, and be aware of pedagogical experiences. has a special place. Because this subject is a pedagogical tool that teaches and directs the content of the subject of chemistry teaching at school and the laws of its understanding by students. The essence of the methods of teaching chemistry as a science is the laws of the process of teaching chemistry, which includes: the purpose of teaching, content, methods, forms, tools, and activities between the teacher and the student. The function of the chemistry methodology is to find the optimal ways of expressing the main facts, laws and theories of high school students in sentences typical of chemistry. Based on the main conclusions, laws and principles of didactics, the methodology solves the main tasks of teaching chemistry that develops education and maturity. A great deal of attention is paid to the problems of the polytechnic teaching of students' career choice. Methodology, like didactics, examines the issues of development, cultivation of students' learning activities and formation of dialectical materialistic worldview. In this case, it is necessary to pay attention to the fact that the effect of the chemical method is different for different young people with different interests and other specific characteristics. In order to solve the chemistry methodology on a scientific basis, it is absolutely necessary to consider the concrete materials of the school chemistry course from the point of view of dialectical-materialistic philosophy, to take into account the current information of pedagogy, physiology and psychology in all respects.

Based on the methodology of teaching chemistry, there are the following methodological directions:

1. The general dialectic method, in which the development of concepts during thinking, the interdependence of various parts of teaching, the interdependence of internal contradictions, a problem approach to solving them.
2. Systematic-structural approach, in which to separate the main sections for teaching, to find their interdependence, and to show the stability and closeness of the interaction of elements and to see the unity of the school chemistry teaching methodology 'show.
3. View the above methodical categories based on three teaching functions: education, education and development.
4. Looking at the basis of chemistry teaching methodology through a didactic approach.

In the methodology of teaching chemistry, didactic training is taught by the laws of education, and the development of knowledge is taught by the sciences of psychology. During training, these three components interact, and the chemistry

lesson is based on the dental methodology. Therefore, the methodology of teaching chemistry is a pedagogical science that teaches students to educate, educate and develop their knowledge during the teaching of chemistry classes. The methodology of teaching chemistry is located in the heart of pedagogy, chemistry, social studies and other sciences and is inextricably linked with them. prepares to adapt to the conditions. Teaching chemistry introduces students to concrete facts, chemical concepts and laws, using them to draw broad dialectical-materialistic conclusions. The teacher reveals to students the important aspects of a truly scientific dialectical-materialistic worldview, that is, nature is not a random collection of separate and unrelated things and phenomena, but a connected whole convinces the readers that they should look at it.Students will learn that in many examples of the chemistry course (atoms and molecules, oxidation-reduction reactions, amphotericity, and other examples), internal contradictions are manifested in the substances themselves and in the particles that make up these substances. They will learn that it leads to changes in terms of: students in chemical processes, reagents that are opposite in terms of their properties, metals and metalloids, cations and anions, in the development of chemistry teaching methodology M. Lomonosov, N. Zinin, A. Voskresensky, D. Mendeleev, A. Lavoisier, A. Butlerov, N. Beketov, L. Chugaev, D. Konovalov, Kekule, I. Kablukov, A. Reformatsky, I. Pisarevsky, B. Menshutkin and other famous chemical scientists contributed because they also taught chemistry to their students. Russian scientists M. Lomonosov, D. Mendeleev, A. Butlerov did a lot of services in creating the scientific basis of chemistry teaching methodology. In the process of uncompromising struggle against idealism and empiricism, these scientists, in addition to creating new directions in chemistry, also laid the foundation for the methodology of teaching chemistry on a scientific and materialistic basis. M. Lomonosov (1711-1765).Russian soil is its own. He founded a gymnasium and a university in the deep belief that he could produce his Platos and his sharp-witted Newtons. He wrote and delivered lectures at Moscow University. D. Mendeleev's books "Fundamentals of Chemistry" (Osnovy khimii), "Dream Thoughts" (Zavetnye mysli), "Project of the Land of Teachers' Knowledge" (Proekt uchilishch tastvnikov) are known to the world. brought chemistry closer to practice. About the basics of chemistry, he said: "Wu is my beloved child - my initial thoughts, my pedagogical experience, my heartfelt thoughts are in this work." He advocated that chemistry should be related to life. In addition to drawing conclusions, it is necessary to teach students to use conclusions, to learn the art of asking nature and hearing its answers

in laboratories and books. Teaching chemistry should gradually form a chemical outlook in students.

Mendeleev to acquaint students with the scientific foundations of chemistry necessary for explaining and using the surrounding nature: paying special attention to forming in students the characteristics of viewing nature from a correct, materialistic point of view: students' scientific knowledge considered that it is necessary to educate students to be able to use the chemical experiment, which is one of the tools, to teach them to work, to prepare them for future practical activities. According to him, teaching chemistry should be based on the substances themselves and the changes that occur with these substances. Chemists believed that it is necessary to explain the properties of substances and the changes that occur with these substances on the basis of existing theories in science: the theory of the structure of substances, the periodic law, the periodic system of chemical elements and other theories. S. Sazonov (1866-1931) In his opinion, the emphasis should be on experiments in teaching chemistry.

He did not deny the educational value of performing chemical experiments, at the same time, he attached great importance to the organization of special practical training for students in high school.

Conclusion:

Pedagogical academy in the old Soviet system played a big role in the development of chemistry teaching methodology. Because it includes the methodology of teaching chemistry, equipping school chemistry classrooms, creating chemical concepts in students, collecting problems and exercises from chemistry, experimenting with organic substances taught in the high school chemistry course and similar methodological problems. Areas of problem solving were widely researched.

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