

THE EFFECT OF USING INNOVATIVE PEDAGOGICAL TECHNOLOGIES IN CHEMISTRY LESSONS

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Annotation. In this article, general information is given in detail about the main interactive methods of teaching in order to improve the quality of education, develop students' creative abilities, and develop the ability to make decisions independently in new situations.

Key words: Innovation, interactive teaching methods, interactive education, educational activity, chemical technology.

Introduction: Today, the teaching of "Chemistry", like every subject, is devoted to the search for pedagogical technologies in school chemistry education aimed at creating conditions that ensure the development of students' internal motivational sphere, educational activity, cognitive activity and independence. needs to be worked on. According to the concept of education development in 2021-2025, one of the most important and urgent tasks of modern education is to prepare a competitive person. As for school chemistry education, the implementation of this concept faces a number of problems. Among the most important problems of teaching chemistry, it is necessary to highlight the possibility of constantly reducing the hours allocated to the study of science and equalizing it by prior study of chemistry (propaedeutic courses) or teaching. In addition, the trend of decreasing interest in learning chemistry and lack of motivation does not help to master the state standard of the basic stage of chemistry education. It should be noted that chemistry is one of the most difficult general education subjects. It is not easy to successfully master even an elementary school course in chemistry. Therefore, the task of the teacher is to involve each student in active activities that ensure the formation and development of cognitive

needs. Solving the above problems can be seen in the search and development of new pedagogical technologies that not only help to form stable positive motivation, but also ensure the implementation of the state standard of chemical education. It should be noted that the way out of the current situation is difficult and impossible without information and communication technologies, and their introduction into the educational process activates it and creates individual conditions during the lesson. The use of computer technologies in teaching chemistry is effective in learning new material lessons (lecture presentations), developing skills and abilities (learning tests), as well as in a chemical seminar. In the framework of this activity, an attempt was made to compare students' acquisition of new material by traditional methods and by using interactive technologies. Signs of interactive methods:

1. Communication - mental activity;
2. Intellectual intellectuality;
3. Enhanced communication;
4. Freedom of choice;
5. Creating a successful situation;
6. Positivity and optimistic assessment;

7. Reflection The topic of the study was the methodology of teaching the subject:

Theme. "Solutions. Calculation of the mass fraction of substances in the solution "Solving situational problems. Task 1. In medicine, boric acid (H_3BO_3) (sassolin) has long been used in the form of 2-3% solutions, ointments and powders for gargling the throat, because it has antiseptic properties has. However, at present, due to the identified side effects, restrictions are placed on its use. How many grams of boric acid and water should be taken to prepare 250 g of a solution

with a mass fraction of boric acid of 3%? Task 2. The first blood substitute used by surgeons in the 1960s was a 0.85% aqueous sodium chloride solution. Calculate the volume of water and the mass of sodium chloride to obtain 550.6 g of a 0.85% salt solution. Topics "Mirrors", "Acids. Chemical properties of acids. Working with video clips from the feature films "The Hound of the Baskervilles", "Dante's Peak". The question is asked in advance: "What mistake did the authors make from a chemical point of view? Think deeply and comment on your answer. The topic is "Redox reactions". In addition to real experiments, I use video clips. In this case, showing video clips saves time in class, is done to increase visibility. Students were asked questions for each demonstration, which they could answer by watching the video. At the end, they had to write the equations of redox reactions correctly and arrange the coefficients in them. Thus, the use of interactive technologies and materials has a positive effect on the development of students' cognitive activity, increases visibility, facilitates the perception of the material, and also has a beneficial effect on the motivation of students and the overall effectiveness of the educational process.

Conclusion: Summarizing the above, the following conclusions can be drawn: Interactive forms and methods are innovative and help to activate students' cognitive activity and independent perception of educational material. They develop communication skills, help establish emotional connections between students, provide an educational task, because they teach to work in a team, listen to the opinions of their peers. They are a condition for self-awareness of students' personality in educational activities.

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