



Introduction Of Interactive Methods and Techniques in the Process of Teaching Chemistry

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ABSTRACT

Currently, many methodological innovations are associated with the use of interactive teaching methods that stimulate and develop the cognitive activity of students, their ability for independent creative, professional thinking. In this regard, of particular relevance and interest is the study of the possibility of using interactive teaching methods and techniques in the educational process at school. The active introduction of interactive methods and techniques in the process of teaching chemistry helps to increase the efficiency of the educational process, since almost all children are actively involved in the learning process.

Keywords:

polylogue, dialogue, task, study, method, interactive, teacher

Reception, lesson, classes, teacher

Among the leading features and tools of interactive interaction are polylogue, dialogue, mental activity, meaning creation, intersubjective relations, freedom of choice, a situation of success, positivity and optimism of evaluation, reflection [4, p.7].

I see my task as a teacher in creating comfortable learning conditions, when all students are involved in the learning process. To this end, I use interactive teaching methods and techniques in goal-setting, learning new material, consolidating and testing the quality of students' knowledge and skills.

There are many methods of interactive learning. Each teacher can independently come up with new forms of work with the class. What specific techniques and methods can be used to make the lesson dynamic and richer, but not overloaded, unusual and interesting? Conducting a lesson or class in an interactive mode begins with the implementation of any interactive method to create a favorable atmosphere, organize communication. The purpose of the methods of this group is the

formation of positive motivation in the upcoming activity, interaction, development of a range of positive emotions and feelings. Such methods can be "Name Alliteration", "Complete the Phrase", "Fears and Expectations", etc.

Name Alliteration Method.

1. The participants in the interaction sit in a circle.

2. The teacher explains the name of the method. "Name alliteration" is an additional characteristic to the name of the interaction participant with the same letter that the name begins with (Mikhail the Wise, Tatiana demanding, etc.).

3. Each participant is invited to come up with an alliteration for their name within 1 minute.

4. After alliterations of names are invented, the teacher says: "I want to introduce myself to you" - and calls the adjective (Elena natural), then passes the word to the next participant. You can complicate the implementation of the method: come up with, for example, an alliteration of a name associated with a chemical element (Elena - europium), etc. [4, p.53].

Complete the phrase method. Implementation conditions: it is necessary to complete the started phrase without any preparation (for example: "If I were oxygen ...") [4, p.55].

Reception "Waiting". I use this technique at the beginning of the lesson, when the didactic goals of the lesson are determined together with the students. The sign "Expectations" is displayed on the board. I suggest that children, after I have reported the topic, express their expectations from the stated topic. Collaboration in the "teacher-student" mode at this stage is controlled so that the objectives of the lesson are formulated.

Students express their suggestions about what they want to know, how and why. I write down the expectations of the children from the lesson on the board and then tell them the specific didactic goals of the lesson, saying that the student's opinion, their desire is also taken into account when designating the goals. By analyzing expectations, I can:

- find out what questions children are interested in on the topic of the lesson; - to reveal the initial representation of the child on the topic;

- obtain information about the abilities of children, in order to know what difficulties in learning can be expected;

- help children understand their motivation;

- to feel like a person whose desire is taken into account; - compare the achieved results with "Expectations";

- share responsibility for the result with children.

When using this element in the lesson, students have the opportunity to reflect on what they know and think. This method can be used in almost all lessons.

Updating knowledge and goal setting

I think that every teacher will agree that the first rule of successful interaction in the classroom is to interest the child. There are plenty of ways to do this. I will give examples.

Reception "Microphone". Pupils express their opinion, answer the question, holding an imaginary microphone in their hands.

Brainstorming. It is a method of finding

new ideas for work. Students spontaneously offer their ideas and thoughts. This is an innovative solution on the topic without external control. Brainstorming can be considered a very effective method that combines both new ideas and ideas derived from them, which leads to a narrowing of the number of possible options. It is a tool for active participation of students, it supports the development of healthy self-esteem, teaches students to express their opinion, significantly affects the ability to remember. The method refers to interactive presentation skills. Conduct:

1. The teacher or students write statements on the board. Anything they come up with.

The teacher at this stage does not evaluate the students' statements.

2. Only after the end of the first stage, the teacher will remove what is not suitable. There may be a general discussion. From the remaining recorded statements, the answer is then formulated.

Learning new material, repetition, generalization and systematization of knowledge In the process of studying new material, generalization and systematization of knowledge

The most effective are the methods of activity exchange, which involve a combination of group and individual work of students, their joint activity. For example, "Mosaic", "Cross groups", "Logical chains", etc. [4, p.24].

The "Mosaic" method allows students to obtain a large amount of information in a short period of time, it serves as a way to solve a complex problem that requires certain knowledge. I'll tell you how I use this method in the classroom.

I determine what tasks the problem to be solved in the class is decomposed into. For example: to study certain educational material or to develop the skill of applying educational knowledge.

I prepare the necessary information for each expert group: sections of the paragraph under study, a set of tasks, etc. It is desirable that students can easily use them (indicate specific pages, select tasks from a textbook or other sources, make copies, etc.)

I make plates of different colors with names (or numbers) to distribute students into groups. Each student will be included in two groups - the main group and the expert group. The main groups can be designated by numbers, for example from 1 to 5.

Each group consists of 5 people who will be experts on a particular topic. The experts of each topic (section of the topic, types of problems, equations, etc.) are denoted by colors: red, blue, yellow, green, white. Thus, in each main group there are experts of different colors (on different topics). After the members of the main group got acquainted with the task, discussed and distributed it among themselves, the experts disperse into expert groups, each of which gathers experts on one topic (with one color) and discuss this topic, solve their problems, etc.

The expert group determines what each of the experts will teach their core group. Then the experts return to their main groups and report to the groups on the work done, teaching their comrades. Thus, there is an exchange of information between children, and the teacher acts as a consultant, assistant to expert groups, an observer of the process of mutual learning. The lesson is summed up by the main group, which can evaluate the contribution of different experts to the overall solution. At the end, the teacher checks the level of mastering the material by students and summarizes the results of the lesson [4, p.74].

"Joint mini-project". Groups work on different tasks of the same topic. After completing the work, each group presents their research, as a result of which all students get acquainted with the topic as a whole [3, p.153].

ONE - PAIR - GROUP. This method is used for the effective passage of the topic, educational material, contentious issues.

Conduct:

1. The student receives a topic that he prepares himself.

2. Then he discusses the prepared topic with someone in a pair. The challenge is to reach agreement and create a basis for discussion with other students.

3. Then one pair of students joins another pair. They again have to discuss everything and agree on the final content of the answer, which

will be presented to the others.

4. Groups can be additionally combined in the number that the teacher considers necessary (4, 6, 8 people each).

Any interactive lesson or lesson ends with a reflection of the interaction that took place. Among the reflexive methods, one can single out "Reflexive circle", "Chamomile", "Complete the phrases", etc. Reflective methods can be used in any lesson, regardless of the content and form of the lesson. In my teaching activities, I most often use the following methods of reflection [4, p.70].

Charging method. For students standing in a circle, the teacher offers, through the performance of certain movements, to evaluate the individual components of interaction in the lesson, and also to express their attitude towards these components.

Movements can be as follows: squat down - a very low score, a negative attitude;

sit down, slightly bending your knees - a low score, an indifferent attitude;

the usual posture, standing, hands at the seams - a satisfactory assessment, a calm attitude;

bend your elbows - a good assessment, a positive attitude;

raise your hands up, clapping your hands, rise on tiptoe - a very high assessment, an enthusiastic attitude [4, p.131].

Reflexive circle method 1. All students sit in a circle.

2. The teacher sets the reflection algorithm: tell us about your emotional state during and during the lesson; what new did you learn, what did you learn?; what are the reasons for this?; How would you rate your participation in the class?

3. Then all students speak in turn in accordance with the given algorithm.

4. The teacher completes the reflective circle [4, p.128].

An analysis of the lessons conducted in the interactive mode shows that the use of interactive methods and techniques in the process of teaching chemistry made it possible to achieve the assimilation of the program material by all students. With such an organization of lessons, the age, individual, personal characteristics of students are taken

into account as much as possible. Work in the classroom becomes a live action that arouses genuine interest in the student, an effective means of involving students in the learning process.

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