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## USE OF INTERACTIVE METHODS IN TEACHING THE SCIENCE OF GEOMETRIC DRAWING.

### Annotation.

This article provides information on the need to use interactive methods in teaching drawing.

**Key words:** method, technology, pedagogy, brainstorming, creative thinking, figurative profile, learning process, creative activity, learning process.

It is known that the recent political, social and economic changes and reforms implemented in our country caused the need to not only involve the introduction of new subjects and educational courses, but also change the standards of education, change the methods of teaching, and follow more practical ways that make students interested in classes or ensure their active participation.

There is a wise saying in our people that "Education and upbringing starts from the cradle". Only enlightenment leads a person to maturity and society to progress. Therefore, the state policy in the field of education in our country is based on the principle of a continuous education system: comprehensive and continuous support for a child from birth to 30 years of age, helping him find a worthy place in life.

In developed countries, great importance is attached to investing in the full cycle of education, that is, investing in a child's upbringing from 3 to 22 years old. Because this investment brings 15-17 times profit to the society. In our case, this indicator is only 4 times. Therefore, it is necessary to pay more attention to human capital and to mobilize all opportunities for this. The words of the great Greek scientist Aristotle, who is honored as "The First Teacher" in the East, "The fate of the country is decided by the education of the youth", were said before 350 AD. Therefore, the issue of education and upbringing has always been gaining urgent importance since the time when humanity began to live a conscious life<sup>1</sup>.

Observations show that in world pedagogy, the main attention was paid to the formation of these qualities in students. Experiments have shown that the use of interactive methods in teaching gives positive results in the formation of these qualities and skills in students. These methods are aimed at conducting the lesson in a dialogic way, especially at ensuring that students actively participate in the lesson. The interactive method is a component of the educational process, a set of teaching methods aimed at activating both the teacher and the student at the same time. At the heart of this is a modern lesson. A modern lesson is a lesson in which the pedagogue skillfully uses the real and intellectual capabilities of the student and ensures his development.

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<sup>1</sup> Shavkat Mirziyoyev. Yangi O'zbekiston taraqqiyot strategiyasi. –T., 2022 yil, "O'zbekiston" nashriyoti. 211- bet.

The need to use different methods, especially interactive methods, in teaching any subject is expressed in the following: the use of such methods ensures, firstly, that the lesson is interesting and that students actively participate in it, and secondly, that they focus on mastering the lesson being taught.

The methods used in teaching can be conditionally divided into: traditional teaching methods and interactive methods that increase student activity.

In a traditional lesson, the main purpose of the lesson is more focused on explanation, and the teacher plays the role of a knowledge giver, and the student plays the role of a learner. To what extent they have mastered the topic under study is determined by the opinions expressed during the control process. Educators, pedagogues-scientists consider it interactive if a high level of cooperation is established between students and the teacher during the lesson. Usually, such cooperation is established when thinking about ways to solve this or that problem, discussing the extent to which the decision can be applied. Special attention should be paid to the fact that the discussion process is more important than its answers. The goal of interactive educational methods is not to impart knowledge, but to form the skills of independent reading, searching, finding answers to questions, and making decisions in pupils or students.

Interactive methods of teaching that increase student activity are also described as non-traditional teaching methods in some literature. These methods have been used before, but less attention has been paid. Currently, the use of active interactive methods is recognized as an effective method of teaching and is widely used all over the world.

The interactive method includes many methods and types of interaction. But regardless of the methodological method, students' experiences are the main source of education. The main feature of collaborative methods is that the student discovers something for himself.

Interactive methods allow students to use their enormous intellectual potential, ensure their active participation in the educational process. It allows to apply elements of not only cooperation, but also competition in the educational process.

Interactive methods not only give students a wide opportunity to express their opinion, but also listen to the opinions, reasons, and arguments of their peers, and they can return from their opinion or completely change their opinion. Interactive methods also teach to respect other people's opinion and listen to it patiently. Creates a real opportunity to create a collaborative atmosphere in the audience.

A teacher should have an educational technology based on interactive methods, not a ready-made recipe for good teaching. It teaches to work in creative cooperation and to be ready to make responsible decisions. Interactive methods of education in pedagogues:

- *ensures interest in the topic studied in the lesson;*
- *allows to thoroughly master the educational material;*
- *develops the student's analytical thinking;*
- *creates conditions for involving all students in the educational process and increasing their activity;*
- *creates a positive psychological climate and atmosphere in the group.*

There are a number of other methods of teaching, which can be used by the teacher depending on the content of the subject and the readiness of the group. Below we will consider the "Brainstorming" method as an example.

Brainstorming - any student's answer to a question is an acceptable method. A brainstorming formula is used to solve more creative problems.

In 1953, the American Alex Osborne publishes the book "Imagination Control". After that, the method of "Brainstorming" will be used in America and later in other countries.

The method of creative thinking is the main goal of brainstorming and it has the following didactic ways:

- *active form of teaching, the opposite of the reproductive teaching method;*
- *students develop their short and concise thinking ability;*
- *the teacher encourages students to listen to each other and helps those who seek to develop the ideas of their peers;*
- *ensures his active participation in the discussion by applying the thinking of the difficult-to-learn student;*
- *new methods can be created in mastering the studied subject;*
- *brainstorming arouses great interest in students and allows them to play didactic games from drawing.*

The answers to the questions asked here are first written on the audience board or paper. Each answer is then compared and the correct one is chosen. But there should be no criticism of wrong or funny answers. After finding the correct answer, each student realizes that he is not satisfied with his answer.

So, with the help of this method, each student is taught how to answer the given question.

This method is used to determine the students' awareness or attitude to this part of the subject, which is difficult to understand. It is recommended to conduct it in the following order:

1. Students are asked a question for discussion on the topic.
2. Each student tries to express his attitude to this question through the answer.
3. The students' opinions are recorded in the same way. In some cases, the student may be asked a clarifying question to clarify the answer.
4. After all the thoughts and opinions have been expressed, the question (task) will be returned and the answers received from the students will be repeated.
5. Students are asked to discuss which answer is really close, correct and accurate.
6. The teacher concludes and emphasizes what the essence is and announces the result.
7. It is important that brainstorming does not take a lot of time. It should not be more than 4-5 minutes, and the main and secondary ones should be determined from all the answers.

8. Brainstorming is an effective method when needed:
  - *discuss controversial issues;*
  - *to encourage students who do not dare to participate in the discussion by inviting them to a debate;*
  - *collect the most ideas in the shortest time;*
  - *is to determine whether the group is ready for the debate.*

Brainstorming technology in a group of 7-8 students gives a good result.

1. Instructions are given before the attack. The main rule here is that no critical comment is given to any answer, even the correct answer, the funny answer, the illogical answer.

In each group, a leader is appointed or elected by the teacher. The leader observes that the rule of brainstorming is not violated, observes the way to search for an idea (idea), emphasis on this or that interesting (correct) idea, and the desire to develop it. One person in the group writes down all the thoughts and ideas by whom.

2. The condition of the issue on the topic is determined and the first discussion is held.
3. The teacher determines the time (duration) for the first stage and writes it on the group board.

**Stage 1. Organization of an idea bank.** The main goal here is to develop all possible solutions. Then, from a reflexive point of view, what mistakes and rule violations are determined.

**Stage 2. Analysis of ideas.** All ideas (opinions) expressed in the group are not discussed from a critical point of view. Here we try to identify the useful aspects of each idea. Maybe it will be considered how to use such an idea. Or it is thought that it can be considered appropriate to use it in another subject, situation.

**Stage 3. Development of results.** Each group selects two to five interesting solutions and presents them to the leader or other designated participant group and the teacher. Among the selected solutions, the best interesting, correct, and very "strange" answers will be discussed. During the discussion, all answers should not be criticized at all. Otherwise, the research process of students can be disrupted. It should be focused on developing students' thinking ability by using them only, that is, by searching for "gut" aspects.

As can be seen from the above points, personal experience is required from the pedagogue to use interactive methods in the lesson. You can read a lot of educational and methodological literature about interactive methods and their use. But he can acquire the skills to use them only by directly participating in this process.

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