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INTERACTIVE METHODS OF LEARNING IN INFORMATICS LESSONS

Abstract: *This article discusses interactive teaching methods in computer science lessons.*

Keywords: *method, informatics, interactive method, interactive learning, Internet*

ИНТЕРАКТИВНЫЕ МЕТОДЫ ОБУЧЕНИЯ НА УРОКАХ ИНФОРМАТИКИ

Аннотация: *В этой статье обсуждаются интерактивные методы обучения на уроках информатики.*

Ключевые слова: *метод, информатика, интрактив метод, интерактивного обучения, интернет*

Interactive learning is a special form of organizing the educational process, the essence of which is the joint activity of students on the development of educational material, in the exchange of knowledge, ideas, methods of activity. Interactive activity in the classroom involves the organization and development of dialogue communication, which leads to mutual understanding, interaction, to the joint solution of common, but significant for each participant.

The main goals of interactive learning:

- stimulation of educational and cognitive motivation;

• development of independence and activity;

• education of analytical and critical thinking;

• formation of communication skills

• self-development of students.

In interactive learning, the needs of the student are taken into account, his personal experience is involved, targeted adjustment of knowledge is carried out, the optimal result is achieved through cooperation, co-creation, independence and freedom of choice, the student analyzes his own activities. The scheme of the relationship between the participants in the educational

process is fundamentally changing; in contact with the teacher and the peer, the student feels more comfortable.

The leading role in interactive learning is assigned to developmental, partial search, search and research methods. For this, individual, pair and group work is organized in the lessons, research projects, role-playing games are used, work is underway with documents and various sources of information, and creative work is used. The lesson is organized in such a way that almost all students are involved in the learning process, they have the opportunity to think, understand and reflect.

This teaching methodology is based on dialogue communication between teacher and student or between students, depending on the nature of the method used. Various interactive teaching methods can be used regardless of the type of lesson and at different stages of the lesson (organizational, informational, semantic, demonstration and discussion, final). The use of interactive teaching methods is also possible regardless of the level of preparedness of the students.

There are various interactive methods, in different modifications and variants, with different names, for working individually, in pairs, in groups, collectively.

"Microphone" Students are encouraged to express their point of view on the question or problem. An object imitating a microphone is allowed in the classroom. Everyone who has received such a "microphone" is obliged to clearly and concisely state his thought and draw a conclusion.

"Brainstorming" To solve a problematic issue, students are encouraged to find as many ways, ideas, suggestions as possible, each of which is fixed on a board or sheet of paper. After the creation of such a "Bank of ideas", analysis and discussion are carried out.

"Teaching – learning" Lesson material is divided into separate blocks according to the number of students in the class. Students work out and

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exchange information, creating temporary pairs, after which there is a collective discussion and consolidation of the educational material.

Carousel Students are placed in two circles facing each other. For some time each couple exchanges information, their thoughts; after that, the students of the outer circle move in a circle to the next partner. You can preliminarily invite students to prepare questions on the topic and conduct a survey in a circle.

"Two, four – together" Students are offered a problem or information that they first work out on their own, then discuss in pairs, then combine into fours. After a joint decision is made in fours, a general discussion of the issue takes place.

"Choose a position" A problematic question is proposed, two opposing points of view and three positions: "Yes" (for the first sentence), "No" (for the second sentence), "I don't know, I did not define my own position". Students in the class choose a certain position, form three groups, discuss the correctness of their position. One or more members of each group argue their position, after which there is a collective discussion of the problem and making the right decision.

"Joint project" The groups are working on different tasks of the same theme. After completing the work, each group presents their research, as a result of which all students become familiar with the topic as a whole.

There are a lot of interactive forms and teaching methods ("Mosaic", "Between parties", "Aquarium", "Synthesis of ideas", "PRESS method", "Live Line", "Cluster", "Big Circle", etc.), but they all stimulate students to creative cognitive activity, create an atmosphere of heightened interest.

So, when studying the topic "Modeling", you can use the "Joint project" method. Students are divided into three groups. Each group is invited to write a description of "Planet Earth":

- the first group from the point of view of mathematics (diameter, thickness of the atmosphere and earth's crust, length of the equator and meridian, etc.);

- the second group from the point of view of the Russian language (essay-description);

- the third group from the point of view of fine arts (drawing);

After discussing the results obtained, the teacher introduces other representations of "Planet Earth": a globe, a geographic map.

Students form the concept of "model", independently identify some types of material and informational models.

When preparing for lessons on the topic "Computer device", you should prepare tasks of a creative nature, for example:

1. You have been instructed to connect a new computer. You have connected all devices. There is no picture when the computer is turned on. Determine what might be causing the problem.

2. Can there be a computer without ... (monitor, hard disk, optical drive, keyboard, mouse, processor, RAM).

3. Does it make sense to have two copies of ... in the computer (monitor, hard disk, optical drive, keyboard, mouse, processor, RAM).

4. Having in stock some parts of the computer and the circuit of the motherboard, try to assemble everything into a single whole (there is a processor, motherboard, RAM, bus, hard disk).

Using these simple exercises, students begin to more accurately understand the purpose of computer devices.

The guys first work individually, then jointly discuss the options received. Thus, students form the concept of information, they themselves draw conclusions about information processes and types of information.

Thus, in the interactive mode, training takes place at the so-called non-standard lessons: games, seminars, workshops, competitions, debates, project

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defense lessons, theatricalization, conferences, courts, discussions, press conferences, etc.

It is important that reflection is present at each lesson, so that at first all students, without exception, are included in it (later you can stop listening to the remarks of several people).

In interactive teaching methods, reflection is one of the important stages of a modern lesson. Learning cannot be effective when something is simply done. It is necessary to think over what has been done, take stock, understand how the acquired knowledge can be applied in the future.

The main distinguishing feature of interactive teaching methods is the initiative of students in the educational process, which is stimulated by the teacher from the position of a partner-assistant. The course and result of learning acquires personal significance for all participants in the process and allows students to develop the ability to independently solve a problem.

References:

1. Тургунов, С. Т., & Хакимова, Д. М. (2017). Координация деятельности субъектов в процессе формирования и развития у учащихся рефлексивных навыков. *Педагогическое образование и наука*, (2), 97-100.
2. Abdullaeva Nasiba Burronovna. (2020). Integration Of Scientific And Rational And Artistic And Aesthetic Aspects In Design And Art. International Journal of Advanced Science and Technology, 29(8s), 1334 - 1336.
3. Urakova O. J. THE SEARCH FOR NATIONAL AND UNIVERSAL IN ART IN THE CONTEXT OF ROMANTICISM //Theoretical & Applied Science. – 2020. – №. 7. – C. 29-32.
4. Urakova O. J. Chulpon s creative work in the legacyof the aesthetical thoughtof mankind //Theoretical & Applied science" halkaro-ilmij zhurnali. – 2016.
5. Urokova O. Urakova Oysuluv Jamoliddinovna THE PRAISE OF NATURE AND THE UNIVERSE IN NOVALIS ROMANCE //Архив исследований. – 2020.
6. Urokova O. Urakova O. Zh. PhD PHILOSOPHICAL AND ARTISTIC AND AESTHETIC ESSENCE OF CHULPAN'S EDUCATIONAL IDEAS //Архив исследований. – 2020.