

**USING THE VENN METHOD IN TEACHING THE SUBJECT OF ELECTROMAGNETIC
OSCILLATIONS AND WAVES**

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Abstract; *In this article, the author introduces the knowledge, skills and understanding of using the interactive method in the topic "Using the Venn method in teaching the topic of electromagnetic vibrations and waves" to the science of physics and thus to understanding and mastering the topic. to help, bring out creativity.*

Key words: *interactive method, passive method, active method, proportional, Venn diagram, interactive, opinion, information.*

**ИСПОЛЬЗОВАНИЕ МЕТОДА ВЕННА ПРИ ОБУЧЕНИИ ПРЕДМЕТА
ЭЛЕКТРОМАГНИТНЫЕ КОЛЕБАНИЯ И ВОЛНЫ**

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Абстрактный. *В этой статье автор знакомит с наукой физикой знания, навыки и понимание использования интерактивного метода по теме «Использование метода Венна в преподавании темы электромагнитных колебаний и волн» и, таким образом, с пониманием и освоением темы. помочь, раскрыть творческий потенциал.*

Ключевые слова: *интерактивный метод, пассивный метод, активный метод, пропорциональный, диаграмма Венна, интерактив, мнение, информация.*

ENTER

The educational process focused on the personality of the student, in turn, requires interactive methods of teaching and innovative technologies. Interactive methods mean problem-based research, logical, independent work, stimulation and justification of student activity in teaching, and control and self-control methods.

Interactive is derived from the English word interact, which means to act in inter-cooperation.

Interactivity is understood as the interaction of the student with the teacher or the

interaction with the computer to achieve the didactic goals of the lesson.

Interactive teaching is, first of all, dialogic teaching, solving problems in cooperation by all participants in the process of communication. The main essence of interactive teaching is that all students become active participants in the educational process. They understand the issues being discussed, the development of events and incidents, understand problematic situations, look for ways to solve them, and recommend the most optimal option.

Students' cooperation in the learning process based on studying the educational material, recommending different options for solving the problem allows each student to add his share for the success of the group, share ideas, information between them. and prepares the ground for the exchange of experience. Since this cooperation takes place in a friendly, comfortable social-psychological, mutual support environment, students not only acquire new knowledge, but also develop their cognitive activities, raise it to a higher level, and allow to enter into cooperation. In the process of using interactive methods in the educational process, it is necessary to organize and manage the interaction of students, in which students are searching for common, and at the same time, important for each student. by starting to solve the problem, understanding of each other, cooperation and harmony are formed between them. In classes using interactive methods, it is not allowed that one student dominates, he is not allowed to express his opinion.

When interactive methods are used, students acquire the skills of critical thinking, analysis of information sources and situations, solving complex problem situations, analyzing the opinions of their peers and drawing reasonable conclusions, participating in discussions, and communicating with other people. . The method of interactive education is the basis of a complex process of cooperation between the teacher and the learner on the implementation of the educational goal. Methods: ensure the achievement of the expected results that the learner should know, master and value when leaving this training period. Experiments show that the main efficiency criteria of the method are as follows:

appropriateness and economy of its application to solve the specified tasks;

simplicity and ease of use;

not only to provide the best results, but also to ensure high reliability of their achievement.

Therefore, the method of active education is a method that stimulates cognitive activities of students. It is built on the basis of a conversation that involves a free exchange of ideas about solving this or that problem. Below we will consider the methods of using the "Venn diagram method", which is one of the interactive methods in the topic "Electromagnetic Oscillations and Waves".

VENN DIAGRAM METHOD

This method is a form of organizing teaching through a graphic image, which is represented by the image of two intersecting circles. This method makes it possible to

consider the analysis and synthesis of different concepts, foundations, ideas through two aspects, to determine their common and differentiating aspects, and to compare them.

Method implementation procedure

participants are put into pairs of two and they are invited to write down in circles the specific, different aspects (or opposites) of the concept or basis under consideration;

at the next stage, the participants are divided into small groups of four people, and each pair introduces its analysis to the group members;

after listening to the analysis of the pairs, they join together, find the common aspects (or differences) of the considered problem or concepts, summarize and write in the intersecting part of the circles (Fig. 1).

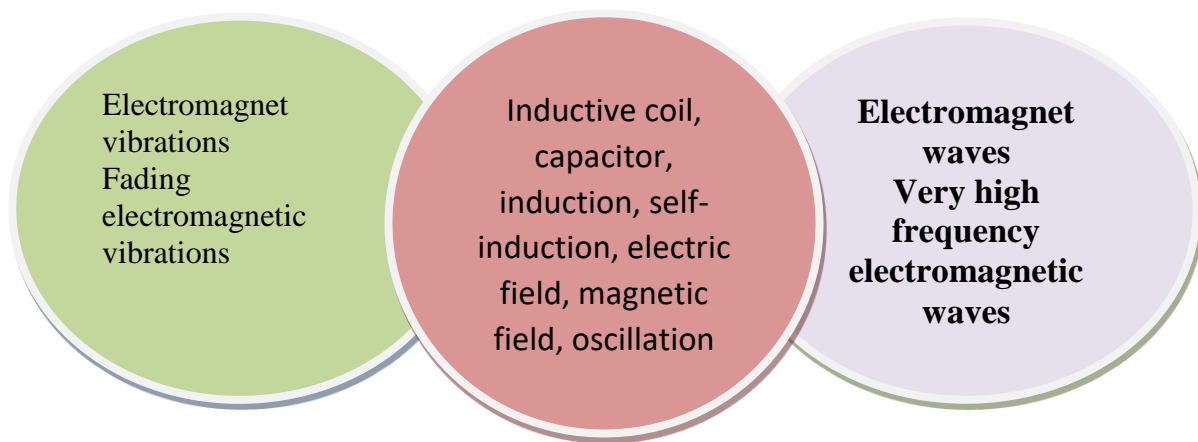


Fig. 1. Venn diagram method

Summary

To sum up, the use of modern pedagogical technologies by teachers in the educational process in the organization of physics lessons and the appropriate, purposeful, effective use of interactive methods in the lessons contribute to the development of students' intellectual abilities, openness to communication, teamwork. It serves to create a wide opportunity to develop the skills of reasoning, logical thinking, synthesis of existing ideas, analysis, and finding logical connections between different views.

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