

**THE INTEGRATION OF COMMUNICATION TECHNOLOGIES AND INTERACTIVE
METHODS IN TEACHING THE SUBJECT OF " METHODS OF TEACHING
INFORMATICS"**

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ANNOTATION

This article describes the use of the "Cognitive Map" method and the software "Mindmaster" in teaching "Analysis of the lesson in pedagogical activity" in the subject "Methods of teaching informatics".

Keywords: interactive methods, "Informatics teaching methodology", "Cognitive map" method, modern information and communication technologies, integration, quality of education, thought process, ideas.

Currently, our state pays great attention to the field of education and higher education, which is its link. In this place, in the Strategy of Actions for further development of the Republic of Uzbekistan developed under the direct leadership of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev, the main ideas became a scientific methodical basis for revealing the essence of this work.

Education is the main factor in reforming society and turning it into a society more open to the outside world and oriented to new technologies and knowledge. It is not only the development perspective of the society, but also determines the individual activities of each person in advance.

In order to improve the quality of education, interactive methods have been used effectively in all educational systems in recent years. Especially the integration of interactive methods with modern technologies gives more effective results. Among them is the "Perception map (visual Mind map)" method - is a graphic method of reflecting information in the process of thinking in a form convenient for human perception - in logical and associative schemes. A cognitive map reflects the thought process. As the process begins, one thought leads to others. Any idea can be developed infinitely in almost all directions. A main idea contains several large ideas, each

of which, in turn, is defined in the form of smaller ideas. Each small idea is inextricably linked with a certain global idea. All of them can be described. In other words, the perceptual mapping method has the ability to provide a guaranteed end result:

- presentation of new knowledge during lectures (group);
- checking and strengthening knowledge in practical training (in small groups);
- creative work in independent education, development of logical thinking skills (individual).

Steps for conducting the cognitive mapping method:

1. Brainstorming. It aims to find the topic of the discussion, that is, the main topic. Usually, in the center of the map - the displayed subject, informatics.

2. Filling. When the main idea is determined, it is necessary to distinguish the main topics related to it. They should have short names and create a map hierarchy. If the categories are too abstract, you should attach pictures to them: this creates associations and allows ideas to spread quickly. The second level of the map is where topics and ideas begin to be created. Subjects listed in the second level should be one or two words. If the map is simple (no more than the third level), the second level may contain a suggestion or reminder.

3. Clarification. The third and subsequent levels are the process of clarifying ideas. Here you can use descriptive phrases, notes and links, as well as connect map elements to each other. For example, you can define relationships between different ideas, notes, and links at different levels. With this, the map is logically enriched.

Mind maps can be created on paper or in mobile applications. It is less convenient to draw by hand, because the networks move and change a lot during the process of filling and refining the perceptual map. With apps, this can be done with a click or two. With the help of modern technologies, it is possible to visualize the material on the mind map, fill it with audio or video content, and also move all these elements.

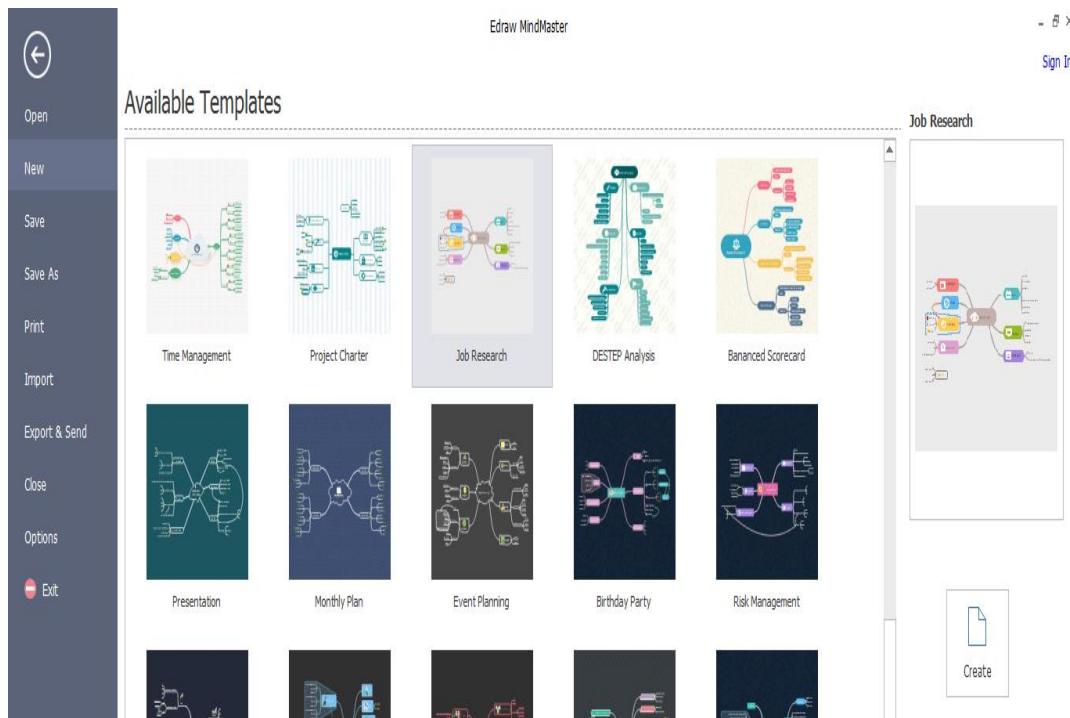
Some popular apps for mind mapping are: Bubble.us, Coogle, FreeMind, iMindMap, MindManager, Mindomo, Popplet, SpiderScribe, XMind. The cognitive map helps to process and organize the information obtained during the lesson.

It also helps to activate associative thinking, which allows you to see important facts that are missed in traditional analysis.

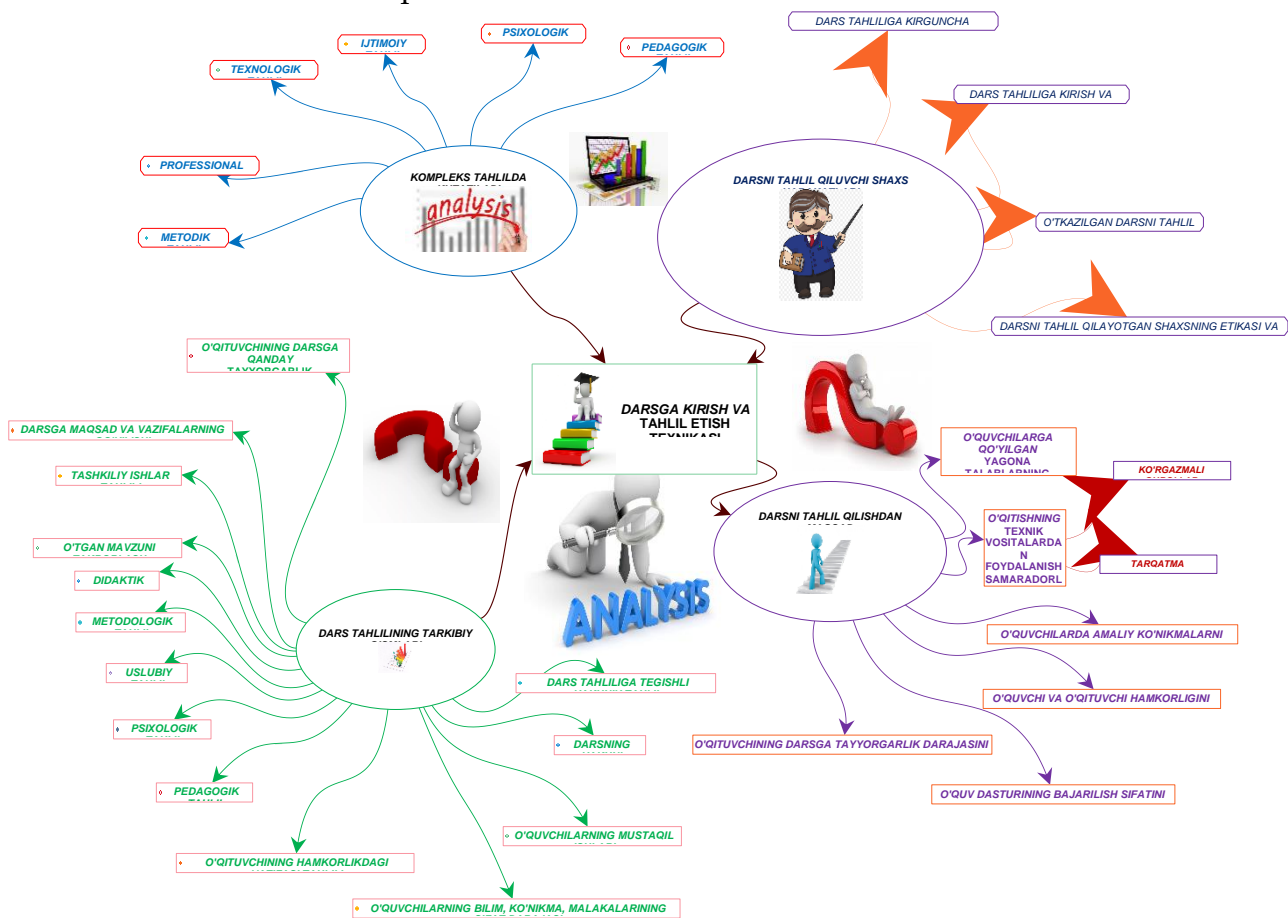
A mind map allows you to gather all the material on a single topic, look at all aspects and see the commonality.

Below we have presented an example of using the EdravMindMaster program, which prepares mental maps for the implementation of the principles of visualization in the subject of "Lesson analysis in pedagogical activity" from the subject "Informatics teaching methodology".

First, the program is launched.



One of the required mental maps is selected from this working window and the required sections are filled in with the concepts.



Appropriate, purposeful, effective use of interactive methods by teachers in the process of education and training increases the learner's openness to communication, teamwork, logical thinking, synthesis of existing ideas, analysis, logical connection between different views. serves

to create a wide opportunity for training of finding skills. The most effective way to increase the effectiveness of education in modern conditions is to organize training using innovative methods and use it in the educational process.

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