

Why do we think that improving of MOOC is so important? Well, because free courses completely change the face of higher education. You can easily learn new things, communicate with students and teachers all over the world, and take courses from the best universities just sitting comfortably at home. We think it's fascinating. It's making education more affordable. Now 40% of students come from developing countries, in our opinion, it's really important. And it's vital to improve online education and develop massive open online courses to change our education system and the world.

References

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Mental maps as a method to train specialists of different profiles

The technology of mental maps nowadays is one of the most innovative and effective methods to work with information.

The majority of people, whether students or workers, use notes, however, mind mapping technique is getting increasingly popular throughout the world.

The most important feature of the mental maps is the fact that this technique enables us to energize both hemispheres of the brain and makes it possible to synchronize their activities. This way it unleashes human mental potential. As a result, the efficiency of generation of new ideas increases several times as much, and problems previously treated as a challenge appear to be a piece of a cake.

A mental map is an easy to use tool to display the process of thinking and structuring information in a visual form.

The mental map is used to:

- take down in shorthand thoughts and ideas while thinking over a problem;
- arrange information so that the brain perceives it easily since the information is recorded in the "language of the brain";

Mental maps (original Mind maps ®) were developed by Tony Buzan, a well-known writer, lecturer and consultant on intelligence, psychology of learning and thinking problems [2. P. 147-151].

Mental maps are easy to perceive, often indispensable to fix the trends in the process of brainstorming, generating ideas, finding the right information while planning projects, resources, finance, and time using mental map technique it is possible to effectively learn and make presentations [4].

The advantages of the mental map are as follows: coverage of a subject or project at a glance, it enhances learning, memorizing, and activates both hemispheres of the brain.

The experience has shown that a person who has mastered this technique can easily find application of this technique to solve everyday problems. The contributing characteristic of mind mapping is a natural, effective, and intuitive way of the technique. Mental maps can be used almost everywhere where brain activity is required. On the one hand, they increase our thinking skills; on the other hand, this method increases our thinking potential.

There are a number of principles used to create mental maps (Fig. 1):

1. It is important to put words in a graphic, visual form with a word or phrase as a central theme and branches with words which must be associative and flexible leading away from it.
2. It is desirable to writing only one keyword in each line.
3. It is necessary to vary the font size and line width.
4. It is better to use different colors for the main branches.
5. Pictures and symbols should be used as often as possible.
6. The space should be organized to leave no blank space and the branches should not be located too close to each other.
7. The paper is to be in a horizontal format. This map is more comfortable to read [1. P. 44-49].

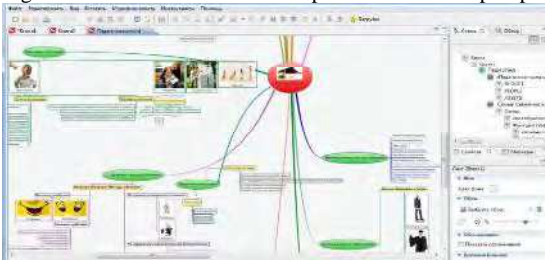
Fig. 1. Principles of creating a mental map



Thus, the mental map should have an associative structure. Currently, there are many software applications to create mental maps (paid and free) with different sets of functions that allow creation one's own style when drawing intellect-maps in the digital world: iMindMap, FreeMind, The Personal Brain, XMind, Free Mind Map [3. P.93-117].

Consider the examples of the method of mental maps in the training of engineering specialties using the product XMind.

Fig. 2. XMind interface and a sample of a mental map in pedagogy



The sample presented in Figure 2 shows mental mapping technique in the learning process in pedagogy of higher education.

Fig. 3. Sample of the mental map on the subject "Application of ultrasound in biomedicine"

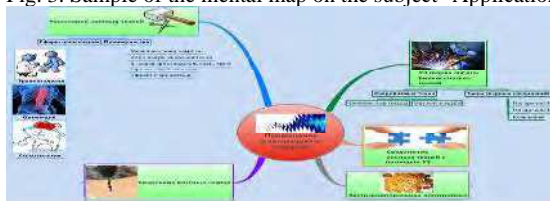


Figure 3 shows the mental map, created on the subject “Application of ultrasound in biomedicine”. The objectives of this work were: training, visualization and presentation in an effective manner of the material studied in the course.

To make the mental map presented in Figure 3 the theme “Use of the ultrasound in surgery” is circled as a central image. The main branches of the subject are presented verbally in sections and visual images, such as: cut bone, soft tissue welding, etc. To enlarge the map, all the blocks are divided into smaller subsections with a variety of visual images. Using mental maps in the learning process to study different disciplines helps to arrange all details and submit it in an emphatic and understandable form. Therefore, mental mapping technique is of great potential to be used for training technical staff and workers, to help student develop thinking skills, as well as to facilitate the development of such an important competence as the ability to analyze, synthesize, organize and systematize the knowledge.

References

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