

THE NEED TO USE INTERACTIVE METHODS IN EDUCATION

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Abstract:

The article is addressed to teaching staff of educational institutions, all those who use interactive technologies to organize successful practical activities.

Keywords: *interactive board, education, technology, method, tool, teaching.*

INTRODUCTION

Interactive equipment is a necessity for education. Children today depend too much on interactive technologies: interactive television, interactive toys, interactive applications on phones, etc. One of the teacher's tools is an interactive whiteboard. Teachers often use interactive whiteboards as a simple projection screen. Not every teacher has the time and incentive to study the software that comes with the whiteboard, and it is this software that allows you to use all the features and benefits of working with an interactive whiteboard.

MATERIALS AND METHODS

An interactive whiteboard in a school can be a very useful tool to help a teacher organize classroom work and present material in the most visual way possible. The advantages that interactive whiteboards bring to schools are obvious and undeniable. After all, with their help, you can not only attract and hold attention to the material being studied. But also to use various channels of perception - both visual and auditory, and kinesthetic. And the information that comes through several channels at once is easier to digest and remains in memory for a long time [1].

The modern lesson should, first of all, teach the child to learn, communicate and help to realize himself. To do this, the student in the lesson must be a full-fledged actor. Due to the fact that the interactive whiteboard allows not only to play computer files, but to manage them, the possibilities of the teacher and students in the lesson are greatly expanded. Children themselves can become direct participants in the presentation of the material, which allows them to keep their interest throughout the lesson. The interactive whiteboard allows you to make the lesson more dynamic, informative. It is not surprising that the use of an interactive whiteboard is considered by many to be not a luxury for a modern school, but an imperative necessity. After all, such equipment allows

you to improve teaching in almost any subject, from mathematics in elementary school to physics or chemistry in high school [2].

RESULTS AND DISCUSSION

An interactive whiteboard is a device used with a projector and a computer. The image from the computer is displayed on the interactive whiteboard, as on a regular screen, using a projector. Using a pen or finger, you can control computer applications or make notes on top of an image without leaving the whiteboard. Any interactive whiteboard has software that, depending on the purpose for which the board is intended, includes a different set of features - from simple drawing over an image from a computer or a virtual white sheet with the ability to save the results of work, to creating multi-page lessons and presentations with managed objects, video clips embedded on pages, and numerous features that make it easier to work with the board.

To control the interactive whiteboard, just touch the screen. Using the whiteboard, you can open files, surf the web, write over any application, website and video with special markers. When you're done, you can save all your notes for later use.

An interactive whiteboard is a touch display that works as part of a system that also includes a computer and a multimedia projector. The computer is sending a signal to the projector. The projector displays the image on the interactive whiteboard. The interactive whiteboard works both as a regular screen and as a computer control device.

Getting started with the interactive whiteboard is quite simple. A marker or finger is used instead of a computer mouse, choosing a drawing tool to easily make marks over the image.

There are several types of types of interactive whiteboards depending on the technologies used: interactive whiteboards with touch, electromagnetic and infrared technology.

- **Touch interactive whiteboards:** at the heart of a touch interactive whiteboard is a resistive matrix - a two-layer grid of the thinnest conductors separated by an air gap, which is built into the plastic surface of the interactive whiteboard. The conductors close from the pressure on the surface when touched. An interactive whiteboard with touch technology responds to the touch of a finger (or any other object) like a computer mouse. The feature of the interactive whiteboard with touch technology gives a significant advantage when using such boards in kindergarten, elementary school and correctional schools, since finger painting, while arousing interest in children, simultaneously develops fine motor skills. This technology does not require the use of special markers, does not use any radiation to work and is not subject to external interference. The disadvantage of this technology is a slight delay in the reaction of the matrix when the marker or its replacement object is quickly moved, as well as the fact that the surface of the board is easily damaged. If we talk about a surface that is hard and durable, more protected from possible vandalism, then you should pay attention to electromagnetic, infrared and ultrasonic interactive whiteboards with electromagnetic, infrared and ultrasonic technologies [3].
- **Electromagnetic interactive whiteboards:** Electromagnetic interactive whiteboards use technology based on the property of electromagnetic waves to be transmitted through insulating materials. As a transmitter of electromagnetic waves, a writing device is used, which can be either a special electronic pencil, which is often called an electronic stylus (looking like a plastic rod with a rounded end, usually imitating a marker in shape).
- **Infrared interactive whiteboards:** Electronic interactive whiteboards are now available that use infrared and ultrasonic sensors to detect the position of a marker. Sometimes, instead of sensors, infrared lasers are used, which read the current position of the marker with high accuracy. An infrared interactive whiteboard uses infrared devices to act as a receiver and

transmitter, resulting in an invisible horizontal-vertical grid on the surface of the interactive whiteboard. When you touch the surface of the interactive whiteboard with an electronic marker or any other object, the infrared beam from the LED source is blocked and the receiver does not receive a signal. Thus, the coordinates of the point are determined and transferred to the computer for further processing.

CONCLUSION

With the SMART Notebook software included with SMART interactive whiteboards, we can save all of our notes, screenshots, images or videos in a single file that can be opened on both Windows and Apple computers. Notes and multimedia objects can be saved as objects that will be easy to manage - change the size, proportions, change the order. Your notes can also be easily saved in a variety of applications including PowerPoint, Word, Excel (Windows versions), Adobe Acrobat and AutoCAD. The SMART Notebook software package also allows you to send the saved document to your students or colleagues at any time - even during the course of the lesson.

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