

## Experience in the application of mediatechnologies in teaching informatics in 5<sup>th</sup> grade of schools

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**Abstract.** *This article discusses the use of media technologies in informatics classes in general education schools. The article also analyzes ideas about interactive table, media technologies and visual education. Conclusions are given about the advantages of using interactive table in 5<sup>th</sup> grade of schools, as well as about the existing disadvantages, aspects that are important to pay attention to when organizing lessons.*

**Keywords:** *media technologies, interactive table, visual learning, demonstration principle.*

### Introduction

The modern school is tasked with preparing students for life in a rapidly changing information society. The main role in solving this problem is played by the modern man's possession of information and communication technologies. Information culture and computer literacy of students are a necessary condition for modern education.

Time sets tasks for the teacher:

- teach children without coercion;
- develop in the child a steady interest in knowledge and the need for their independent search;
- make teaching joyful.

As life shows, these problems cannot be solved with the help of individual methodological findings, a systematic approach is needed .. Modern teaching tools allow to diversify the educational process, make it more accessible, vivid, memorable, and, therefore, more productive.

It turns out that the use of media technologies is a task set for the school by the time itself.

### Materials and Methods

Research work on the introduction of information and communication technologies in education, the use of media technologies Rakhmatova D. [1], Bepalko V.P. [2], Vorobyova G.N. [3], Tursunova Ch.A. [4], Yakovlev D.A., Savina A.V. [4], Makhmudova D.M., Tadjibaev B.R., Dusburodova G.Kh. [6], Mukhamedov G.I., Makhmudova D.M. [7], Makhmudova D.M. [8]. However, the problem of using media technology in computer science classes taught in general secondary schools for 5<sup>th</sup> graders has not yet been fully explored.

### Discussion

Many teachers note the broad potential of e-learning materials, thanks to which the following didactic tasks are successfully solved:

- presentation of educational information;
- information and reference support for all types of classes;
- modeling and demonstration of the studied objects, phenomena and processes;

- support for various active forms of training;
- training of various skills and abilities.

They also note the shortcomings and reasons that prevent the widespread use of e-learning materials in the educational process:

- the content of e-learning materials is either a complete retelling of traditional textbooks, or, on the contrary, has nothing to do with the curriculum;
- in electronic editions there is a lack of simulators, practical and test tasks, tests are primitive and monotonous;
- methods and scenarios for conducting classes using electronic training materials have not been developed;
- the available electronic publications for educational purposes are not adapted for use in the lesson: the teacher does not have the opportunity to select the information he needs and put it together at his own discretion;
- there are no unified approaches to the installation of electronic publications for educational purposes and to work with them.

Now almost all schools have an information technology room (KIT), it is also possible to conduct computer science lessons in it, using various teaching, monitoring and training programs. However, the lessons conducted at KIT have their own characteristics:

1. Due to the fact that in grade 5 schoolchildren almost do not know how to use a computer (not everyone has it at home), when drawing up a lesson plan held in a computer class, it is necessary to allocate time for explaining and learning how to work with a computer, and with a specific task.
2. When preparing for the lesson, it is also necessary to take into account the hygienic requirements for the time of working with a computer. Pupils from 5 to 6 grades at the computer screen in the lesson can be no more than 15 minutes.
3. Thus, there is time that can be used before or after the period of working with the computer. At these stages of the lesson, teachers usually use material that could be shown on the screen using a multimedia projector (for example, a presentation), even if there was no urgent need for this (if we were to conduct a lesson in a computer class, then I wanted to use the full capabilities of the office).

It turns out that the teacher develops a lesson for conducting information technology in the office, but it is necessary that it was the other way around - information technology should help in conducting the lesson.

Teachers also emphasize the hardness of media technologies and their benefits: BV Gromova claims that together with a computer, he uses a multimedia projector and an interactive whiteboard in the classroom. An interactive whiteboard is a touchscreen connected to a computer that is transmitted to the whiteboard by a projector. Thus, everything that happens on a computer monitor is demonstrated on an interactive whiteboard. In addition, it can be used, like an ordinary blackboard for solving problems and exercises, only instead of chalk we write with a special electronic pen (electronic pen), with which you can change the thickness and color of the pen.

The entries are bright and colorful. You no longer need a rag, you can use special operations to erase what is written from the interactive whiteboard. However, you can save to a file on your computer, and then later review and discuss with students. Such a board allows you to write by hand over open documents and remove what was written without changing the document itself. Interactive

whiteboard software provides ample opportunities for more effective organization of the educational process.

### Conclusion

The interactive whiteboard can also be used at many stages of the lesson:

1. Use ID to check homework and do oral exercises. Previously, verbal counting tasks had to be written on the board at every break, often in a hurry because there was not enough time. Then everything was wiped off. Now you can pre-type the oral exercises on the computer and move them to the board at any time. If it is difficult to type text on a computer (there are many formulas, fractions, etc.), then on the screen of the interactive whiteboard you can write text by hand and save it, and in the lesson you just have to open the required file.

2. With the use of ID, educational independent work is carried out more effectively. Next to each task, you can write its solution. But the guys see only the text of the assignment in front of them, and the solutions are hidden behind an opaque screen (one of the possibilities provided by the ID), as if behind a curtain (except for an opaque screen, there are many other ways to hide and show what is written). Time timer (also one of the many ID functions), beeps when the work is finished. When you need to check the answers, you can "Open" the opaque screen, check the solutions. Fifth graders see their mistakes and correct them immediately. The concentration of attention increases, the understanding of the material improves. For controlling independent work, any text written in the ID can be printed out to each student.

3. Conducting lessons in the form of presentations increases the amount of information for assimilation. Making presentations is creative, fun, but time consuming process. IDs make it easy to create slides. On the ID I write the condition of the problem. If you do not find a suitable illustration on the Internet, then you can make a colorful drawing yourself or ask schoolchildren in advance, they will be happy to draw everything that is needed on the blackboard. Then you can move it all from the ID screen to the slide. Text and graphics usually take up a third of the slide. In the lesson, they open a slide, read and analyze the problem together with the students. On the clean territory of the slide, write the solution with an electronic pen. The solution can be "erased", the slide is ready for use again. When you turn on the "Record Video" mode, the interactive whiteboard allows you to record everything that happens on the whiteboard to a file. You can then watch the saved video file, replaying the entire whiteboard process. Thus, you can create entire video tutorials.

4. Using the ID as a computer screen, it is possible to explain to fifth-graders how to work with a computer using various teaching and monitoring computer programs, which prepares students in advance for the subsequent visit to the information technology classroom and effective work in it at the computer.

With interactive whiteboards, you can always work in this mode - first, develop a lesson, and then, using the ID and a computer, prepare the material necessary for the demonstration. The use of ID reduces the teacher's time to prepare for the lesson. Lessons become easier for learners to perceive, difficult moments become more understandable.

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