

## Principles for the use of ICTS in Teaching School Subjects

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**Annotation:** The article provides a theoretical justification for the use of interactive tools as leading in the technology of developing education in the organization of classes. The psychological and pedagogical aspects of the problem of the formation of a creative, informationally competent personality are considered.

**Keywords:** interactive whiteboard; innovative technologies; SMART Board software, SMART Notebook.

### Introduction.

For the successful social development of society, educational institutions must train highly qualified specialists who will meet the requirements of the information society, be competitive in the modern labor market, operate effectively in professional and social environments and be able to learn throughout their lives. To train such specialists in the educational process, it is necessary to use interactive technologies, which at the present stage are becoming a new educational standard. Highly efficient technical means make it possible to create an interactive information and communication environment and use both traditional and innovative pedagogical technologies.

The problem of the development of new technologies lies in the development of fundamentally new approaches to the organization and conduct of the educational process. Modern learning technologies are based on the principles of optimization. They are aimed at improvement, perspectives. Future specialists should be fluent in the latest information technologies, with the help of which the solution of any socio-pedagogical problems will be methodically correct, based on the acquired knowledge, skills and abilities.

**Research methods:** theoretical methods - analysis and study of psychological, pedagogical, methodological and special literature on the designated problem; analysis of curricula and programs, textbooks.

### Results.

In today's conditions, a computer is an effective tool for processing and analyzing information. In combination with modern technologies, it has become a full-fledged interlocutor, allowing specialists, without leaving the classroom, office, to attend lectures by prominent scientists, participate in conferences, dialogues, international projects, and the like.

A powerful technical tool and the embodiment of a new multimedia technology tool is an interactive software and technology educational complex based on SMART Board. Its proprietary software easily integrates with the most common application programs, opens up wide opportunities for the development and use of interactive teaching aids, educational elements and interactive lecture halls.

Informatization of the sphere of education is becoming increasingly important today and is entering a new stage of its development. New information and multimedia and other computer technologies are being introduced into the educational process. An important direction in improving the level of

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teaching, improving the educational process in a higher educational institution is the use of various methods, in particular those based on modern information technologies. Considering the fact that information technology dominates the world today, it is quite natural that new and modern teaching aids will appear with the help of the latest technologies.

Higher education teachers are trying to learn how to use them as effectively as possible in the classroom with students. One of them is working with an interactive whiteboard. An interactive whiteboard or Smart Board is a touchscreen connected to a computer onto which the projector transmits an image from the computer. It should be noted the great opportunities provided by this device. With the help of special software, the teacher and students have the opportunity to work both with texts or video and audio objects, and with materials from the Internet. Very useful and interesting, according to teachers, is that the equipment allows you to make handwritten notes simply over open documents, and then also save this information [1, 24].

### **Discussion.**

The relevance of using an interactive whiteboard in the classroom is due to an increase in the effectiveness of training, as evidenced by data from SMART Technologies. According to the report of the European Association European Schoolnet on the impact of information and communication technologies on success, working with an interactive whiteboard in the classroom helps to improve students' results in a number of subjects, among which mathematics is in the first place [2, 40]. Scientists argue that the main problem of introducing an interactive whiteboard in higher education is a subjective factor: the lack of sufficient skills in designing an information space and user interface among teachers. Before a teacher who wants to involve the use of an interactive whiteboard in the practice of his work, the following tasks arise: - to learn (technically) to work in the Smart Notebook environment; - learn practical ways of working directly with the board; - methodically correctly apply the acquired skills and abilities at the preparatory stage and during the lesson or other event.

The specially designed Smart Notebook software is the most popular for designing and delivering classes in multimedia whiteboards. Its technologies make it possible to make classes as interesting and interactive as possible, raise communication between teacher and student to a completely different level, improve the efficiency of the educational process, create conditions for individual and differentiated learning of students, eliminate personal and psychological barriers in communication and create a favorable psychological climate. The advantage of the program is the ability to use texts and objects, audio and video materials, flash animation and Internet resources in one document. It allows you to create new interactive activities and combine materials previously developed in other programs (Word, Excel, PowerPoint, etc.).

Of particular interest for a teacher of mathematics in the Smart Notebook program is a collection of interactive objects created using Flash technologies for organizing activities in the classroom - Lesson Activity Toolkit (LAT 2.0). All objects in this collection are divided into 6 sections: tasks, examples, games, graphics, pages and tools. The development of the language and speech competence of students in live and emotional forms is facilitated by a complex of interactive tasks.

The creative organization of communicative practice is helped by a number of interactive games - dice, sudoku, etc. Checking the level of formation of language competence, developing the skills of unprepared and prepared speech in an original form is carried out using various graphic objects and tools. The Smart Notebook program provides ample opportunities for developing listening skills - ready-made video and audio clips are located in the collection of the program (Gallery search), in the "online library" and other educational online resources. Like other materials, video files can be

scaled, moved, rewritten, and audio files can be attached to other objects or used as independent clips.

The Smart Notebook and Smart Response program allows participants in the process to exchange information in real time, complete group assignments, view any useful content, and helps turn the lesson into an active exchange of knowledge. Undoubtedly, the use of Smart Notebook technologies contributes to the rapid assimilation of the material due to the influence on various information channels, makes it possible to present information in a wide range of visualization tools (tables, diagrams, photographs, etc.), which saves time and makes classes very informative and meaningful ...

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