

GENERAL SECONDARY EDUCATION “INFORMATICS AND INFORMATION” IN SCHOOLS METHODOLOGY FOR APPLYING SCRIBING TECHNOLOGY TO THE TEACHING PROCESS OF TECHNOLOGY

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ANOTATION

This article provides information about the teaching, content and forms of Information Technology in secondary education schools. It also provides an in-depth study of Informatics and information technology, as well as scientific research into ways to improve student knowledge.

Keywords: knowledge, skills, qualifications, computer, individual, group, frontal, non-traditional, group, Information, Technologies.

We are all aware that the XXI century is the age of Information Technology, in order to become a literate person in this century, it is necessary first of all to become a computer literate, to master information technology. In order for each Specialist, regardless of the field in which he works, to fulfill his task at the level of the demand for time, it is necessary to know the means of processing information, the methodology for their use and have the skills to work in them. Therefore, having the skills to be able to control modern computers is necessary for every younger generation. Therefore, one of the first and most important tasks of Computer Science in general secondary schools is the formation of a clear way of thinking in students. The form and method of teaching should be aimed at developing the thinking and creative abilities of young students. The fact that computer science does not look like other disciplines, while leaving readers with a pleasant game-like imagination, serves as an impetus for them to reveal their own abilities. Students become computer-generated seekers and researchers. In doing so, relying on their own experiences, they learn to summarize and summarize. The main goal of the Informatics course is to teach the growing generation to independently think with the help of a computer, develop its imagination and implement its creative plans in life. Organizational forms of Education occupy a special place in the teaching of Informatics. Organizational forms of teaching are understood as ways of organizing the interaction of a teacher and a student. Organizational forms of teaching are classified by the number of students, place of teaching, etc. Organizational forms of training will consist of:

- * Individual;
- Clustered;
- * **Frontal.**

The performance of independent work in Informatics is one of the forms that implies the individual activities of students. Practical training on computers requires group work. Conducting classes as a lecture is an example of frontal forms of teaching. Modern pedagogical studies show that the group form of teaching is an effective means of preventing negative relationships between students. In the group form of teaching, teaching in small groups is of

particular importance. When organizing training in small groups, it is necessary to establish the placement of students facing each other face to face.

V. Voroshilov, A.V. Tolmacheva, E.N. The cooks also emphasize in their research the technology of scripting, in which the main meaning of the teaching material is conveyed through images. Writing can take many forms. For example, a video clip created independently by a teacher, which is a finished product placed on an information resource, or sketches on a board that represent the content of the topic under consideration. Video scribing or static scribing is a result in the form of an image that helps to establish communication between individual components. As advantages of scripting, the authors emphasize the ability of the reader to simultaneously use their hearing, vision and imagination. Of practical importance is the use of finished products in the Internet space. There are resources with a large number of templates on foreign topics, which make it possible to make the learning process effective. O.V. Ivanova noted that writing saves time allocated for training. In the course of the lecture, students will have time not only to learn new material, but also to consolidate their knowledge, to show creative thinking in the study of science. The author also notes another aspect of the use of scribing in the learning process. For example, a teacher needs to spend a lot of time to reflect the educational material in a visual form. As a result, the educational process using scripting helps to increase the effectiveness of education, develop visual communication and increase the independence of the subjects of the educational process. N.V. Bystrova, I.L. Belova, A. Sayed highlights the positive aspects of writing: the effectiveness of conducting educational material, the recall of important thoughts, the universality of visual language, the parallel follow-up effect. The modern learning process using scribing should include five stages. First of all, it is necessary to identify the problem of research, indicate its relevance. Secondly, it is important to find information and unitahlil. Thirdly, the color, the presentation of the material in a figurative form with the help of various compositions. The fourth stage is content design, processing, editing video material. The final stage involves presenting the result, speaking to the public. Scribing technology is a universal means of ensuring interactive visual communication and has a positive effect on the results of the learning process. Figure 1 shows the advantages of using scripting. The effectiveness of mastering educational material indicates that writing allows you to present information in a convenient form for perception in a short time. Synchronization of Audio and video materials improves information comprehension and recall. Minimum investment is an important advantage, because only an electronic device or drawing surface and markers will be needed to use scripting. The opportunity to organize the educational process in direct interactive contact with students during the lesson provides a wider involvement of students in reading and the development of their creative abilities. one of the simplest, but at the same time popular tools for making nfographics is Moovly. In this service, many elements can be drawn by hand, creating a unique type of animated presentation. This service is suitable for beginners in the field of scripting. The service has a detailed timeline and a well-designed navigation mechanism. For example, in the theme 'New Year' on Moovly, you can choose a template and add phrases, words and texts yourself to study them collectively. For example, the 3D virtual characters used in motion pictures are usually animated in a manner similar to how real human actors act to advance content. In addition, such virtual 3D models can be prepared in the real world to create a 3D real model - a recent trend in Computer-

Aided Design 3D printing. In general, 3D models serve as important conditions in various graphics and design applications. A large content of modeling research focuses on innovating in the process of creating a virtual 3D model. Two approaches to modeling have been researched by scientists around the world: creating a manual model and creating an automatic model. Automatic model creation, on the other hand, it will be possible to create 3D models that you are interested in automatically if they contain a lot of repeating elements. Creating a manual model the most common way to create 3D models is with manual tools. Multifaceted modeling and digital sculpture are popular hand modeling methods, the choice between which depends on the type of 3D model to be created. For modeling sun"iy ob"vertices, such as furniture and buildings, preference is given to polygon modeling, as the image of a polygon lattice usually corresponds to the shapes of sun"iy objects. In order to model organic objects such as Virtual human characters, digital sculpture is preferred due to its added flexibility in the process of mesh modeling. Manual 3D modeling is usually done through interactive modeling programs. For example, 3ds Max, Maya, ZBrush. Its interfaces, which provide a wide range of 3D modeling, allow the creation of very realistic and detailed 3D models. However, the complexity of management creates a rather tense situation, so 3D modeling has become an achievement of professional digital artists. But even for professionally trained professionals, creating 3D models with a wide range of possibilities still requires a lot of time and effort. Instructional programs, which usually require a huge amount of high-quality 3D models, require a lot of investment to make the latest games and movies. This severely limits the speed of production and the number of annual publications. In contrast to the situation in the 1980s when video game typically included simple 2-dimensional graphics and the entire production could be handled by a small team, today's production in the video game and film industry is now somewhat at the expense of the application of 3D technologies difficulty has arisen. A manual approach to creating 3D models may not be a challenge for the artist. However, it is possible to easily succeed in the development of powerful and intelligent modeling tools and interfaces. Readers will not always be able to open and remove the internal components of the computer. It is especially difficult to see the interior open on modern computers in the form of monobloc, which is now gaining popularity in society. Computers where this was possible, however, began to go out of circulation as it became known today. At the same time, a sharp update of the content of training programs will not allow this either. In other ways, explaining computer internals by specifying their relationship, sequence, is also the most fundamental feature of modeling. Another advantage of modeling is calculated in the presence of the ability to view and picture a 3D model in an optional state using the rendering method. It is today that Computer Science and information technology can be viewed as an educational tool that has a good effect on the use of these possibilities of modeling in teaching. Indeed, ongoing efforts are being made to improve interactive modeling techniques in Computer Graphics Research. Within the framework of the study on the topic "methodology for creating and using a 3D format electronic manual on the subject" Informatics and information technology" for secondary schools, an electronic manual on the subject "Informatics and information technology" was developed. The 3D lessons window of the electronic manual looks like this

Such placement of student positions in a non-traditional case makes it possible to solve the issues discussed in groups. In conclusion, reading is the process of acquiring knowledge, skills and qualifications. Students acquire cognitive skills and competencies in the course of their studies. In knowledge, the objective world is represented in a generalized way. Knowledge acquisition implies the study of facts, concepts and laws.

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