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PSYCHOLOGICAL PRINCIPLES OF THE INTEGRATION OF INFORMATICS AND INFORMATION TECHNOLOGIES IN PRIMARY EDUCATION

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ABSTRACT: In the article the positive impact of information technologies on the educational process for the modern pupil and their harmonization with traditional teaching methods, as well as the purpose of the science of informatics and information technologies, working with information is discussed.

KEYWORDS: Informatics, information technologies, primary education, computer, pupil.

INTRODUCTION

Along with other academic subjects, informatics plays an important role in the formation of a holistic worldview, education and communication skills, and in the comprehensive development of a person. One of the priorities of primary education is the formation of the information component of general educational skills, in which the computer science course makes a significant contribution.

Under the influence of the changes taking place in our society, not only the forms, but also the content of school education is being reviewed. This is due to the increase in the flow of information, which is an integral part of any person's activity. In the order No. 125 of the Ministry of Preschool and School Education dated on May 15, 2023 "On Approval of the Basic Curriculum for the 2023-2024 Academic Year for General Secondary Schools" the subject "Informatics and information technologies" was introduced in the 1st grade of general secondary schools from the current academic year [1]. The child's psychological preparation for life in the information society should be formed from the first years of school, which includes the acquisition of computer literacy, the development of algorithmic thinking skills, and the ability to think logically. Adaptation of elementary school pupils to informatics and information technologies has a propaedeutical character, the main goals are: to introduce pupils to the computer (initial aspect), form information culture (its main elements), special trainers and software supply and use of games in educational activities. Primary school age is characterized by the rapid development of intellect, the transition from visual-figurative thinking to verbal-logical thinking, perception takes on the character of analysis and differentiation, the child's memory improves.

The spread of information technologies and computers is so great that the ability to use them in daily activities forms a new way of life and is becoming an element of general human culture. In modern society, almost every family has a personal computer. Often, a child's first contact with a computer occurs already at preschool age. A modern child is growing up in the environment of a new subject and new information. Unlike in the past, the reality surrounding the modern child is

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filled with countless man-made electronic devices. These include computers, mobile phones, digital cameras, digital video cameras, players, tablets, and so on. No matter how detailed you study the world around you, without learning computer literacy, a child cannot learn about these objects that are everywhere in life, how they are made, when and why they appeared.

At the elementary school age, children become more interested in computers as a means of play, and they develop an interest in learning computer science. Active use of information technologies in the educational process and their combination with traditional teaching methods creates cognitive interest in learning computer science. The place of "informatics" science in the system of other educational subjects is determined by its purpose and content. The purpose of teaching computer science and information technologies is to teach children to work with information (search, analysis, classification, etc.), including computer use with certain purpose. For this, it is necessary to create conditions for the formation of basic ideas about the actions with information and information objects, including texts, drawings, diagrams, tables, databases, and information objects in the primary class, it is desirable to teach schoolchildren the necessary knowledge about their properties and to teach them to perform certain actions with information objects using a computer. It is necessary to teach children to use modern information technologies in solving educational and practical problems.

School education has traditionally set the main goal of equipping the student with a certain amount of knowledge, skills and abilities. But at present, the main task of the school is not to enrich schoolchildren with knowledge, but to teach them to learn independently and how to learn. The ability to learn is especially important in the modern world, because changes occur very quickly in all areas of professional activity, and in order for a person to be in demand in his field of activity, he must learn and improve his skills throughout his life. That is, we can say that modern life requires a person to have well-developed cognitive abilities (perception, attention, memory, thinking, imagination). Elementary school plays a big role in achieving this goal, because during this period, students' mental abilities develop rapidly. Pedagogical practice shows that the use of information technologies is effective for the performance of the task, as well as for the acquisition of "new literacy" of elementary school pupils.

ICT is mainly used in the elementry classes in two directions: I) computer as an object of study in computer science classes; 2) use of IT in the lessons of other subjects (mathematics, mother tongue, science, etc.).

When learning computer science in elementary school, pupils begin to develop the skills of classifying information and making connections [2]. Schoolchildren learn to identify basic and common things, similarities and comparing. The child begins to see the world around him meaningfully and can manage it successfully. In the study of the elementary course, priority tasks are set for the formation of universal learning actions in pupils (the skills of building a model of the problem being solved, as well as the ability to solve non-standard problems are formed). This will form planning skills in elementary school pupils in solving various types of problems in the future. In order to achieve meta-topic and subject-specific outcomes in a specific educational field, the objectives of the selected computer science course should be defined. Within a particular field of study, the technical characteristics must be taken into account in order to integrate the subject

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into the curriculum. This subject is designed to provide pupils with the skills to solve problems in the field of information. The pupils develop basic knowledge and develop sustainable skills that enable them to solve the problems they are given.

Let us cite the following famous facts [3]:

- children of primary school age learn the basic terms and concepts of the informatics course much more easily and acquire important practical skills on the computer early;
- the most rapid development of school intelligence occurs at an early age.

At the initial stage, the main problem in learning informatics is to arouse interest in students as a subject studied at school. It is recommended to use the game process as a tool of strong influence on the children's team. The purpose of the game is to expand knowledge and fully participate in the development of children. During the game, an environment of healthy competition is created, which forces students to mobilize their knowledge, choose suitable options, think and discussion, choose, throw away unnecessary things, evaluate, and this is not just mechanical memories. The pupils with low academic achievement, who are used to taking everything at the ready, become active, they actively search for answers in the literature and think, because almost no one wants to take the last place in the game. In other words, having a good "memory store" in such situations does not indicate the ability to use its resources. When you realize this, you will feel confident and satisfied.

CONCLUSION

In conclusion, the following suggestions are appropriate:

- Information technologies are developing rapidly. This development is manifested in one way or another in the educational process, affects elementary school pupils, so the teacher should actively work on the development of all students, including passive pupils.
- The discussion of how and what should be taught to junior school pupils studying "Informatics and ICT" in primary schools should be renewed.
- In informatics classes in elementary grades, teaching methods and forms are used that allow for effective construction of the educational process taking into account the characteristics of junior schoolchildren: laboratory and practical work, game techniques, information minutes, etc. One of the most used methods is game technology.
- Specially designed programs for children are considered in computer classes in elementary grades.

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