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SCIENTIFIC-PEDAGOGICAL BASIS OF TEACHING INFORMATION TECHNOLOGIES TO SCHOOL-AGE CHILDREN

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Abstract

In this article, changes in the current secondary education system, students' education, implementation of step-by-step teaching of computer science in schools, students' acquisition of necessary knowledge and skills in the field of information technologies, information was given on how to create a program or invent and apply it to life in the case of using it in practice.

We are all witnesses that today information technologies are developing more and more. The benefits of this development are huge. Because information technology is closely related to all areas. Currently, one of the main pieces of information technology is "Artificial Intelligence". With all the new ideas, inventions and innovative approaches that artificial intelligence is bringing to ecology, environmental protection is getting better. Artificial intelligence is making a big impact in preventing and redeveloping air and water pollution around the world.

I think that the school period is the main factor in teaching such information technologies to the younger generation and forming them into mature specialists. Because, as it is said, "Knowledge acquired at a young age is like an inscription written on stone" (You never forget what you learned at very young age), it is appropriate to start teaching information technologies from school age children.

Currently, in order to improve the educational process, various state education systems are being introduced to education from year to year. For example: in previous years, the "Finnish education system" was introduced in our schools, but now the "Cambridge" education system is introduced in the schools. This situation is certainly well established, good changes are being implemented, but the changes in the subject of "Informatics" in teaching information technologies are confusing schoolchildren.

The reason is that if a school student is learning Microsoft Office programs in computer science in the 6th grade, after moving to the 7th grade, again, they are moving on to topics about programming according to the new textbook, saying that something new has been introduced into education.

As a result, the knowledge students are getting is mixed or seems to be incomprehensible. The reason is that the textbooks are not in order, but out of order. In this case, the students' interest in information

technologies, learning them, and the ability to create and apply a program in their own lives is decreasing.

Informatics is a science that studies information technologies and their use. If more than 60% of the annual textbooks given in this subject are given as a practical training, the students will increase their level of knowledge and increase their interest. In this regard, a number of changes are stipulated in the law.

In order to bring pre-school and general secondary education to a new level, to increase its quality and to improve educational programs, such a procedure should be established, according to which, starting from the 2023/2024 academic year, step by step:

Education aimed at providing students with elementary knowledge in grades 1-4, basic knowledge in grades 5-9, and knowledge suitable for the interests and abilities of students in grades 10-11 of general secondary education institutions. programs and educational-methodical complexes are introduced;

Interdisciplinary and interclass integration of general secondary education programs and educational-methodical complexes is provided;

A new method of knowledge assessment will be introduced, and within it, the teacher will assess students' skills such as being able to apply the subject in practice, critical thinking and analyzing the given material;

Computer science is introduced in the primary classes of general secondary educational institutions, and lessons aimed at increasing financial literacy of students are introduced in secondary classes;

The share of practical training in all subjects will be increased to 60%. In this case, the topics in the lessons are taught by solving specific problems, and practical lessons are conducted in the form of project implementation.

The laws and decisions issued in order to improve the quality of the educational processes of these secondary schools have become the target. In fact, in order to improve the quality of education in schools, it is not necessary to introduce one state education system one year and another state education system the next, but to gradually teach students our own education system in an organized state, and to develop our own education system, other countries should study our education system and apply it to their own schools and other areas of education.

In particular: if we do not teach computer science in the secondary education system in a step-by-step manner in the future, how will our young people be able to independently use information technologies and create innovations. If they act and learn in an orderly manner, they will bring many innovations to the world of information technology, as we think, tomorrow. They make inventions and discoveries in artificial intelligence.

In fact, our goals are the same. If they study one of the many areas of information technology that they are interested in and improve their knowledge, they will become mature staff and mature specialists who will make a great contribution to the development of the mature country in the future.

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