TEACHING PROGRAMMING AS A KEY COMPETENCE OF A MODERN STUDENT

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ABSTRACT: The article examines the importance of learning programming in modern education and the role of this skill as a key competence for students. The authors emphasize that in the context of the digital transformation of society, the ability to program becomes an essential element of professional training. The article discusses the benefits of mastering programming skills, including the development of logical thinking, creativity and problem-solving abilities. Methods and approaches to the implementation of programming training in educational programs are also considered, as well as recommendations for the effective implementation of this process are put forward. In conclusion, the article emphasizes the need for attention to the formation of programming skills among students as a strategic direction of modern education.

KEYWORDS: Programming training, Modern education, Students and programming, Key competencies, Digital literacy, Technological progress in education, Integration of information technologies, Programming as a skill of the future, E-learning in programming, Development of critical thinking through programming, Innovations in the educational process.

INTRODUCTION

In the modern world saturated with digital technologies, the ability to program is becoming an integral part of education. Programming ceases to be the prerogative of information technology specialists and becomes a key competence that gives students a competitive advantage in the labor market. Let's look at why learning programming is so important for a modern student. Programming requires systematic and logical thinking[1]. Students trained in programming develop the skills of analysis, parsing complex tasks into smaller ones, which in turn contributes to the development of critical thinking and logic.

Modern society is undergoing a digital transformation, and in this context, knowledge of programming becomes the key to understanding and participating in the digital economy. Having mastered the basics of programming, the student gets the opportunity to actively interact with technology and form their place in the digital world. Programming is not only a set of skills, but also a tool for solving real problems. Students trained in programming are able to create programs and applications that can improve people's lives, optimize business processes, or solve social problems. Programming is like art, where each algorithm is a unique creation[2]. Learning to program promotes the development of creative thinking, as students can experiment, create their own projects and translate their ideas into code.

The labor market is increasingly appreciating specialists with programming skills. Regardless of the professional field, the ability to program gives the student additional opportunities for employment and career growth.

In the digital age, programming is becoming an integral part of education. The demand for competent programmers is constantly growing, and learning programming acquires the status of a key competence of a modern student. In this article, we will look at the reasons why mastering programming skills is becoming increasingly important, and how this can affect the future of students. Learning to program requires analytical thinking and the ability to reason logically. Programming teaches students to break down tasks into subtasks, build logical chains and develop effective algorithms. Modern society is moving towards a digital economy where programming is a key element. IT specialists are in demand in many industries, and having programming skills opens up wide opportunities for employment and career growth.

Programming is not only a science, but also an art. Creating programs requires a creative approach to solving problems. Students trained in programming develop the ability to be creative, find non-standard solutions and master new technologies. Learning to program allows students to apply their skills to solve real-world problems. This experience not only strengthens the acquired knowledge, but also forms the practical skills necessary for a successful career[3]. One of the challenges is to ensure that programming education is accessible to all students, regardless of their social status or place of residence. It is necessary to develop effective methods and tools for distance learning.

Programming technologies are constantly evolving, and training programs must meet the latest trends. It is important to provide students with up-to-date information and the opportunity to learn new languages and technologies. The pursuit of gender equality in the IT field involves the involvement of women in programming. It is necessary to create conditions for their successful studies and professional growth in this field.

Learning to program not only builds students important skills for a successful career, but also contributes to the development of their thinking, creativity and ability to solve complex problems. In the context of rapid technological progress, programming is becoming a key competence that opens the door to a world of digital opportunities and innovations[4]. In today's digital society, where technology penetrates into all spheres of life, mastering programming skills becomes a necessity. Programming training goes beyond the narrow circle of IT specialists, becoming a key competence for a modern student. This skill area not only develops logical thinking, but also contributes to the formation of creativity, problem-based thinking and strengthening of general skills needed in the modern world.

Learning to program requires coherent logical thinking. Developing algorithms, writing code, solving problems - all this requires an analytical and structured approach, which has a positive effect on the development of critical thinking. Programming often involves solving complex problems. Students trained in programming develop the skill of effectively finding solutions, adapting to new situations and taking a creative approach to problems. A modern developer rarely works in isolation. Programming training promotes the formation of teamwork skills,

including co-writing code, discussing strategies and solving problems in a team. Programming requires constant updating of knowledge and the ability to quickly adapt to new technologies. This experience builds students' self-education and information skills.

Programming skills are in demand in many industries today: from banking to research and medicine[5]. Students who have mastered programming gain a competitive advantage in the labor market. With the development of technology, the prospects of technically competent specialists are only increasing. Programming not only gives students specific skills, but also trains them to adapt to rapidly changing market demands. Learning to program not only builds technical skills, but also plays a key role in developing critical thinking, creativity and teamwork. This competence becomes the foundation for a successful career in various fields. Therefore, the inclusion of programming in educational programs becomes an important step to prepare students for the challenges of modern society.

CONCLUSION

Learning to program is becoming an integral part of education in the digital age. This competence not only forms key skills for a successful career, but also develops students' critical, logical and creative thinking. Preparing for a digital society requires mastering programming skills so that the younger generation can successfully adapt to a rapidly changing world and contribute to technological progress.

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