

**INTEGRATION OF THE USE OF INFORMATION COMMUNICATION  
TECHNOLOGIES IN TEACHING SCIENCES IN GENERAL SCHOOLS****Rakhimova Gulbahor Valijonovna**

Doctor of Philosophy (PhD) in Pedagogical Sciences

Fergana Region PMM Head of the Department of Pedagogy  
and Psychology, Educational Technologies**ANNOTATION**

This article is about the use of integrated forms of information and communication technologies in secondary schools. It is aimed at improving the harmony of subject topics and information media in organizing lessons in teaching subjects.

**Keywords:** Modern education, integration, integrated education, integration of activities, information-based education, teaching practice, information-based society.

Today, a number of reforms in education are aimed at raising the younger generation in line with the times and raising the level of education based on modern educational opportunities.

Based on this goal, increasing students' interest in learning, instilling motivation, and creating a desire for independent learning in the organization of educational processes are considered urgent tasks in the field of education.

In many developed foreign countries, in order to increase the efficiency of students' learning in the field of education and support their abilities, more attention is paid to integrated education.

In this context, integration means "whole", which means combining different parts and elements of the process of thinking growth into a single whole. Integration is also called the joining of elements of individual parts in this context, their transformation into a whole, and their integration.

This concept of "integration" was first explained by Spencer in the XVIII century as a factor in the development of thought, and at the same time it can be interpreted as a synthesis of interdisciplinary communication and forms of education.

In general education schools, the integration of content within subjects and disciplines, the integration of the activities of teachers of different subjects, and the introduction of forms of organization of educational work through integration are important factors in increasing the effectiveness of education.

There are also decisive examples of the problem of integration in the educational processes of general education schools: For example, in this case, teachers of general education schools create opportunities for students to use information media effectively and meaningfully, and increase their activity.

Such practical results indicate the existence of a connection between students, and it is more expedient to describe their activities as follows:

In this case, when the level of personal concern from self-concern moves to "concern for asking and influencing", the level of personal acceptance can also change from entering the process to invention. Although the results indicate some important factors that hinder the use of information and communication technologies in teaching and learning by secondary school teachers and students, among them, problematic factors such as lack of knowledge of how to effectively use information technology resources, lack of all classrooms, technical and pedagogical support have a greater impact.

From this it can be understood that there is a need to deeply study the process of integrating information and communication technologies into teaching and learning practices, as well as the problems that arise.

This is one of the initial tasks that was carried out by studying this situation and analyzing existing data and reviewing critical literature. It is no secret that in today's modern society, improving human life and effectively using information technologies in our daily lives is of particular importance. The use of information and communication technologies in education has always been emphasized, as it has a special place in the education of students, and plays a major role in terms of efficiency.

In particular;

- Ensuring the revision of teaching practices in an information-based educational environment;
- Formation of graduates and personnel of the types required in an information society;
- Radically improving educational outcomes, increasing and improving the quality of teaching and learning.

It is worth noting that due to the added value of information technologies in education, all teachers and students should use information technologies to support their teaching and learning activities, and to obtain in-depth knowledge.

We know very well that in today's age of digital technologies, education is absolutely unimaginable without information and communication technologies. The use of information

technology in education is inevitable, as it is a means of expanding the opportunities for teachers and students to acquire more effective and meaningful knowledge and skills. Information technology can be used as a tool for scientific research, problem solving, creative thinking, and learning to read.

Teachers should have the opportunity to disseminate best practices via the Internet, work with reliable tools, receive support on resources and new modern pedagogical issues, and communicate the latest educational developments through quick, easy and accurate reporting to various departments via Internet networks. If Internet tools and resources, multimedia and related technologies are seen as inextricably linked to the study of literacy in a broader sense as a matter of obtaining information, communicating and learning, the possibility of integrating information technologies in teaching and learning is high.

In other words, in the XXI century, new modern means of education, mass media, information technologies complement, expand and transform as a basis for general knowledge and skills. Pedagogical qualifications, practical knowledge, as well as experience and skills, increase. As a result, opportunities for the use of information technologies in education are supplemented. It is the key to the integration of information technologies in teaching and learning in secondary schools, and also increases the opportunities for using artificial intelligence, such as in the modern world.

In conclusion, it can be said that from the experiences of teachers and students in improving the level of mastery of information media, it is clear that the development of scientific and pedagogical foundations for the integration of effective use of information technologies in covering the topics of academic subjects increases educational efficiency and prevents unnecessary expenditure of effort and stress.

When integrating the educational process, it is possible to teach students to feel their presence, improve the skills of teachers in using modern teaching methods, develop them in accordance with the goals and content of education, accustom them to learning based on need, and properly organize students' independent learning.

#### **LIST OF USED LITERATURE:**

1. Mirziyoev Sh.M. 2017-2021 Xarakterlar strategiyasi. T.: Adolat 2017
2. Ishmuxamedov R. va b. "Ta'limda innovatsion texnologiyalar"
3. Ta'limda ilg'or xorijiy tajribalar. O'quv uslubiy majmua 2017. TDPU xuzuridagi PXQTVUMOTM

4. Barret, AM, (2009), The Education Mingyilium Development Goals Beyond 2015, Sifat va o'quvchilar istiqbollari, Edqual Working Paper №13, Bristol univ
5. Becta AKT tadqiqotlari. (2005-2006). Becta sharhi 2005-2006 yil.
6. Cabanatan, P. (2003). Pedagogika va texnologiyani integratsiyalash: Pedagogika integratsiyasi, Bangkok, Tailand. 18- 20 iyun. Milton Keynes.
7. Kalake, M. (2007). Maktablarda AKTni joriy etishni ta'minlovchi va cheklovchi omillar: Lesotodagi uchta maktabni bir nechta misolini o'rganish. Rodos universiteti.
8. Kozma, RB (2008). 'Ta'limda AKT siyosatining qiyosiy tahlili. Ta'limda texnologiyalar markazi', SRI International.
9. Torbern, D. (2004). Texnologiya integratsiyasi va ta'limni o'zgartirish: bu mumkinmi? 2011-yil <http://www.usask.ca/education/coursework/802papers/thor>
10. <file:///C:/Users/ADMIN/Downloads/293-285.pdf>