

## METHODS OF USING BLENDED LEARNING ELEMENTS IN TEACHING INFORMATICS AND INFORMATION TECHNOLOGIES

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### ABSTRACT

This article describes the characteristics of the methods of using blended learning elements in the teaching of "Informatics and Information Technologies" in the educational system of our republic. Also, the task of providing the educational process with high-quality literature and advanced pedagogical, including information technologies, the use of elements of mixed education and the implementation of information is set.

**Keywords:** Informatics, general secondary education, mixed education, Heuristic teaching method, Distance learning, blended learning, Webinar method.

## INFORMATIKA VA AXBOROT TEXNOLOGIYALARI FANINI O'QITISHDA ARALASH TA'LIM ELEMENTLARI (BLENDED LEARNING) DAN FOYDALANISH USULLARI.

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### ANNOTATSIYA

Mazkur maqolada respublikamiz ta'lim tizimida "Informatika va axborot texnologiyalari" fanini o'qitishda aralash ta'lim elementlari (blended learning) dan foydalanish usullarining xususiyatlari haqida yoritilgan. Shuningdek, o'quv-tarbiya jarayonini yuqori sifatli adabiyotlar va ilg'or pedagogik, shu jumladan, axborot texnologiyalari bilan ta'minlash, aralash ta'lim elementlaridan foydalanish va axborotlashtirishni amalga oshirish vazifasi qo'yilgan.

**Kalit so'zlar:** Informatika, umumiy o'rta ta'lim, aralash ta'lim, Evristik o'qitish metodi, Distance learning, blended learning, Vebinar metodi.

### INTRODUCTION

In today's age of new modern technologies, the science of Informatics and information technologies is given great importance. Informatics and information technologies (Informatics and IT) is to provide the growing generation with thorough mastering of information technologies and the processes of their use. The formation and growth of students' scientific outlook, ability to think logically, mental development, self-awareness potential depends to a large extent on information technologies. It is necessary for a person to enter into personal, socio-economic and professional relationships in his life, to take his place in society, to solve

the problems he faces, and most importantly, to be competitive in his field and profession. must have basic competencies.

In addition, in the process of mastering each educational subject in education, the competences related to the subject related to the field are also formed in students based on the uniqueness and content of this subject. The purpose of the subject is to educate students as individuals who will make a worthy contribution to the development of our country by forming the competencies of rational use of information and communication technologies based on national and universal human values. Informatics and information technologies curriculum starts from the 5th grade of secondary general education schools and continues until the 11th grade.

### LITERATURE ANALYSIS

Foreign scientists such as D.Gibbons, D.Kreven and A.Amacdo work on modern information technologies and their classification, Russian scientists A.A.Andreev, V.P.Bespalko, K.E.Demikhov, S.Ya.Egorov, S.A.Zolotaryova, V.I.Smirnov, L.I.Tyurina, A.V. Khutorskoy's educational literature and scientific research related to the classification of relevant subjects, scientists of our republic A.A. Abdukadirov, M. Aripov, A.B. Ahmedov, F.B. Badalov, B. Boltaev, B.A. Begalov, R.R. Boqiev, A.R. Marakhimov, S.I. Studying the researches, articles, manuals and textbooks of Rakhmonkulova, A. Sattarov, U. Yu. Yuldashev, T. Kh. Kholmatov on the problems of teaching informatics and related subjects in the continuous education system "Informatics and information technologies" helps to find a solution to some problems in studying science.

### RESEARCH METHODOLOGY

Advanced foreign experiences in modern education are blended learning. Information technologies offer various new forms of education, in particular, the principle of a complex approach in the modular education system is gaining strength in recent times. The placement of various forms and methods in it has led to the introduction of mixed education as an innovation. Declan Burn says about "blended learning" (mixed education) - "this education is aimed at effective use of rich pedagogical experience." Such an approach can be based on the use of different methodologies in the presentation of information, information technologies in the organization of education and in the educational process, and the organization of traditional activities individually and in groups. Such a different approach does not tire the student and increases his motivation to study. The main issue is ensuring the compatibility of the selected methods and achieving high efficiency at low cost.

### ANALYSIS AND RESULTS

Today, blended learning is a combination of elements of traditional daytime education and distance education, which makes it possible to combine traditional methods and new technologies. In this system, the teacher remains at the center of education and makes extensive and effective use of the Internet. Blended learning consists of distance learning, classroom learning (Fake-to-Fake learning) and online learning.

Webinar method: Today, another type of distance education technology "webinar" (in 1998 this term was introduced into the conversation) appeared. Webinar technology involves interactive

organization of teaching based on web technology. This technology not only conveys information to the audience, but also creates an opportunity to communicate with them (verbally, in writing), that is, it is possible to exchange ideas and express one's opinion in the form of a seminar. In other words, education organized on the basis of the Internet network is moving to the subject-subject paradigm.

While a webinar class is a seminar or conference delivered live over the Internet with simultaneous audio and video (and many of the interactive options listed in previous posts), the class can be recorded for later use. the lessons of the entire educational or course process are not interconnected within the framework of a single platform, that is, it can be said that they are separate one-time lessons.

Heuristic teaching method: When using the heuristic teaching method, the teacher determines the problem that needs to be solved in cooperation with the students. And the students acquire the necessary knowledge in the process of independently researching the proposed problem and compare its solution with other situations. In the process of solving the set problem, students acquire the experience of conducting research activities by mastering the methods of scientific knowledge.

The following actions are taken by the teacher and students when applying the research teaching method in the educational process:

The structure of the teacher's activity	The structure of student activity
<ul style="list-style-type: none"> <li>- offering students a learning problem;</li> <li>- establish a research issue in cooperation with students;</li> <li>- organization of students' scientific activities</li> </ul>	<ul style="list-style-type: none"> <li>- to understand the essence of educational problems;</li> <li>- to be active in establishing the research problem together with the teacher and students;</li> <li>- finding ways to solve them; - mastering the methods of solving research problems</li> </ul>

The heuristic method requires teachers to have the skills and abilities to organize high-level cognitive activities that acquire a creative character. As a result, students can acquire new knowledge independently. They are usually used in certain situations, taking into account the mastery levels of high school students. The use of these methods in primary classes is somewhat complicated according to the opinions of practicing teachers. However, the preparation of projects in this direction is becoming more and more important in the current situation, where the social movement aimed at the active introduction of person-oriented education into the continuous education system is taking place. Despite this, this classification is somewhat widespread in school practice and recognized by the pedagogical community. Also, scientific research was carried out based on the works of the great didact I.Ya. Lerner.

How can blended learning be used in Informatics and IT classes in this article? - we will answer the questions. In the practical assignment: They are divided into groups. Each group receives a topic for training development and prepares a training plan.

- Homework is given to a network group for discussion (a social network or mobile messenger can be chosen as a tool) - In the discussion, active students are attached to passive students.
- Students' opinions are taken into account in the development of the lesson.

## CONCLUSIONS

In short, in the practical lessons of "Informatics and information technologies", it is necessary to teach each student individually, taking the material from simple to complex. This approach to teaching allows to fill the gaps in the student's knowledge and to use blended learning methods in practice. The current level of development of human society is reflected in the fundamental changes implemented in all spheres of social life of our independent republic. Undoubtedly, such changes are closely related to the development of a well-rounded person. That is, blended learning is a combination of elements of traditional daytime education and distance education, which makes it possible to combine traditional methods and new technologies. In this system, the teacher remains at the center of education and makes extensive and effective use of the Internet.

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