

USE OF ELECTRONIC EDUCATIONAL LITERATURE IN THE SYSTEM
OF PROFESSIONAL DEVELOPMENT AND RETRAINING

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Annotation. This article talks about the role of the use of electronic educational literature in the system of advanced training and retraining of personnel in the development of our modern society, as well as increasing the intellectual level of young students as a result of the use of distance education.

In order for our country to strengthen its independence and develop it, it carries out important work and activities aimed at raising a highly moral, highly educated, free-thinking, mentally and spiritually mature individual. To do this, it is necessary to widely use electronic educational literature in the system of advanced training and retraining of personnel. Because in the 21st century, where development has accelerated, young people are busy with information and information technologies, so we must effectively use electronic literature to educate it into morally rich, high-potential, competitive personnel. Distance education in the development of the use of information technology in the educational process. Distance education occupies a special place in the development of the use of information technology in the educational process. Distance education opens up an excellent path for people who want to improve their knowledge without interrupting their work, people who are unable to go to school, the disabled, the elderly, etc. We cannot force anyone to study remotely. In this case, the applicant will have the opportunity to communicate, gather additional information and exchange ideas depending on his abilities. Distance education meets all the requirements of our time, in particular, it affects the funds for organizing all systems of full-time education, excluding travel expenses. It is known that for many years correspondence education was carried out primarily through television, radio or the press. But implementing them was difficult due to many factors. There are a number of ways to organize distance education based on new information technologies: interactive television, telecommunications based on CD-ROM technology, educational radio and television, video cassettes, etc. In recent years,

four different types of distance learning have become popular:

1. Interactive television (two-way television);
2. Computer telecommunication complexes based on information exchange (regional and global, Internet);
3. Computer telecommunication complexes with multimedia, interactive mode, video conferencing capabilities;
4. In the section of the first and second types. Distance learning is online learning at a time convenient for you.

The structural features of distance education are: teacher, student, communication.

Methodological materials for distance learning are: textbook; audio and video lessons; online classes (web page); electronic libraries; tests; multimedia electronic textbooks.

At the same time, virtual libraries, video conferencing via satellite, classes, communication and obtaining information via the Internet have appeared in distance education. This provided the student with a special learning environment. The speed and quality of students' learning of natural sciences will improve dramatically. In world practice, open and distance learning is currently based on six models:

Model 1. External training. In this case, the student does not use the full-time education system of the school or higher education institution. In this case, the student receives a certificate or diploma without visiting an educational institution.

Model 2. Studying at a higher educational institution (full-time education). This is a whole system, training is carried out in full-time, part-time or distance learning based on new information technologies. This method is widely used in many foreign universities.

Model 3. Teaching in cooperation of several higher education institutions. At the same time, higher education institutions in a number of countries, in cooperation with each other, have established correspondence and distance learning; students have the right to study at a higher education institution or college in the country of their choice, without leaving their country or home.

Model 4. Autonomous educational institution. A special educational institution with multimedia courses based on distance learning. The level of knowledge is also assessed and certified. Examples of such higher education institutions are the Open University in London and the National University of Technology in the USA.

Model 5. Autonomous learning system. Training using this method is carried out primarily through television, radio communications or additional printed media. The American-Samoan television project is currently working on this principle.

Model 6. Multimedia distance learning. It is mainly suitable for older people who have not completed their secondary education and helps them complete high school. Thus, the introduction of distance education with the help of information technology is bearing fruit, despite certain financial difficulties.

After gaining independence, the Republic of Uzbekistan firmly took its rightful place in the world community and development progress, and also rapidly entered the 21st century - the century of information technology and the information society. Therefore, the role of computer science and information technology in the modern educational process is extremely incomparable. Today, for every teacher, these information technologies should play a leading role in his educational development. Because the development of the lesson must be clearly explained in the minds of younger students. Only in this way will education be formed in the minds of students in a more qualitative and enjoyable way. Apart from leading education, there is also the issue of effective use of information technology for schoolchildren. Because today humanity, like computer science, is faced with an inevitable reality. Its main question, problem is to overcome the information crisis (incalculable growth), which has not happened in any other sphere of human activity. However, solving the problem is possible with the effective use of modern information technologies, computer equipment and global Internet networks. In turn, in the new millennium, modern specialists in any field, including engineers, economists, financiers, employees of the banking and tax systems, marketers, scientific researchers, teachers, professors, etc., will be able to freely and effectively use the information resources of the relevant field (receipt of information, (collection, creation, processing, storage, transmission, etc.) they need to have the appropriate knowledge of computer information and telecommunications means, a culture of using information. Creating the foundations of information culture is the subject of computer science, and in its study it consists in the perfect formation of theoretical knowledge and current industry issues while studying the capabilities of technical, software and algorithmic tools. In the process of studying methods of working with modern computers, opportunities will open up that did not reach the student's initial imagination. Modern computers can do almost everything, but for this the user must know exactly what he wants and, most importantly, be able to explain to the computer how to do it.

In turn, in order to explain something to the computer, you need to enter information into it. Because information is the main resource of computer science and information technology. Information is an optional distinguishing, differentiating, classifying feature that can lead to change. Or, to put it another way, information is a set of messages about an activity. Also in computer science, along with information, information concepts are widely used. Data can be thought of as stored symbols or recorded observations that are not used for one reason or another. If it is possible to use this information to reduce abstraction (uncertainty) about the work, then the data can be called information. Currently, humanity develops a way of life through movement and competition and is the basis for creating new discoveries. One of these discoveries is computer technology. Since time immemorial, humanity has been faced with the problems of making their work easier and saving time. It goes without saying

that the computer was one of the greatest discoveries of the 20th century. As time demands, computer technology has developed greatly. Collection, management, processing and transmission of data are especially important nowadays. The need of developed and developing farmers to use the most modern and compact technologies is increasing every day. Because the whole world has recognized that the 21st century is the century of information. In the information age, it is necessary to work with large-scale data stores and information. The rapid changes taking place in the development of society, in the tools needed for everyday needs, have an impact on computer science and information technology, which are part of them. The development of information technology has an impact on software and technical support. These effects are so strong that they change and increase over months rather than years. The emergence of new capabilities of information technologies, their hardware and software requires a radical change in the method of service in this area. In addition, knowledge of information technology increases students' interest in information technology. Information, which forms its basis, is one of the valuable reserves of society, like traditional types of material reserves, such as oil, gas, minerals, therefore its processing can be considered as a technology in comparison with the processing of material reserves. Then it would be appropriate to introduce the following concept: The purpose of material production is the production of products that satisfy the needs of a person or a system, while the purpose of information technology is the production of information for human analysis and the execution of actions based on it. Information technology is a process that uses a set of tools and methods for collecting, processing and transmitting data (initial information) to obtain new quality information about the state of an object, process or event (information product).

Information technology is perfectly connected with information systems, for which information technology is the main environment. Information technology is the process of executing actions, activities and steps based on rules organized based on data stored in a computer. The main goal of information technology is to provide the user with the necessary information by processing primary information as a result of targeted action. An information system is an environment consisting of computers, computer networks, software products, databases, people, various hardware and software communications and other devices. The main purpose of an information system is the storage and transmission of information. An information system is a human-computer information processing system. In short, since each field today has its own wide range of applications, it is our responsibility as educators to shape them. Also, the field of computer science is the newest and most developing field to enter science. Since its widespread use is inextricably linked to improving our future, we need to study it more deeply today. After all, the fact that this area is widely used in all areas of activity, as well as in education, creates comfort for all of us. Therefore, it is our duty to widely promote it in society, especially among young people.

Today, information technology is developing widely throughout the world. Undoubtedly, it is necessary to establish the targeted use of new information technologies in

the educational process. Modern society is characterized by the active use of the global information network, which is not limited in volume and speed of information transfer. The emergence and widespread dissemination of multimedia and Internet technologies makes it possible to use ICT as a means of communication, education and penetration into the global community.

Today it is difficult to imagine the educational process, like all spheres, without computers and information technology. This does not mean that the use of computer and information technologies solves all problems, that is, the transmission and processing of information - it does not guarantee the complete formation of knowledge, skills and abilities, since all this is only an effective addition to training. just one of the means. That is why the use of modern information technologies in the education system is carried out in the following areas:

- information and communication technologies as an object of learning, that is, students have a general understanding and skills in the process of studying new information technologies, including computers, multimedia, distance learning, Internet technologies and their components and areas of use;

- information and communication technologies as a means of learning, i.e. Students are provided with knowledge based on modern information and pedagogical technologies, that is, information and communication technologies are used in teaching general education and specialized subjects. Lectures, practical and laboratory classes are organized on the basis of modern computer software, while interdisciplinary integration is carried out;

- as a means of managing the educational process, i.e. to create a system of information, analysis and forecasting based on information and communication technologies in increasing the effectiveness of educational, spiritual, educational and research activities of an educational institution, involvement in practice.

During the educational process at school, students learn to work with text using ICT, create visual objects and databases, and use spreadsheets. Students learn new methods of collecting information and using it, and their worldview expands. The use of ICT in the classroom increases motivation to study, students' curiosity, and the efficiency of independent work. The computer, together with ICT, provides new opportunities in the field of education, in the study and creativity of students. For the first time, a situation has arisen where education and ICT will become the main tool of a person's future profession. Education truly permeates our lives throughout our lives.

In the use of ICT, one should try to realize all human abilities - curiosity, manners, creativity, communication and aesthetic abilities. In order for these skills to be implemented at the required high level, the teacher's knowledge in the field of ICT is required. The formation of this knowledge among teachers must begin during their studies in higher educational institutions. Knowledge in the field of ICT can be expressed in the following: the ability to evaluate and apply experience in the modern

information environment; try to develop personal creative abilities; the presence of a common communicative culture, experience and theoretical knowledge in organizing information exchange; mastering the culture of receiving, selecting, storing, processing, changing, presenting, transmitting and applying information. Today, everyone understands that a child comes into contact with a computer at every step - at home, in Internet clubs. A natural question arises: does every child use this modern technology for its intended purpose? What measures are needed for this?

It is known that in secondary schools in our country a special subject for the study of information technology has been introduced, mainly in grades 5-7, that is, at the age of 12-16 years. In this regard, the Decree of the President of the Republic of Uzbekistan dated May 30, 2002 "On the further development of informatization and the introduction of information and communication technologies" set new tasks for the education sector. In particular, computerization of education consists not only of providing schools with the necessary equipment and computers, but, first of all, is aimed at increasing the productivity of teachers and students and the effectiveness of education.

At present, of course, the importance of searching for new psychological and pedagogical approaches to intellectual education is increasing. The development of children's mental activity in the educational process is directly related to the use of various forms and methods of teaching.

Based on the above, the natural question is how computerization of school education is carried out. Computerization of school education is carried out in two directions. Studying the subject of computer science (the computer is the object of study) and using the computer in the study of other educational subjects (the computer is a learning tool). Undoubtedly, a computer increases a student's motivation to study. The possibilities of monitoring the presentation of educational tasks by level of difficulty are also expanded, and motivation can be increased by stimulating correctly completed tasks.

Identify specific opportunities for using computer technology in the process of primary education, study the pedagogical, physiological, hygienic and medical foundations of this process, and use the best practices of the educational system of developed countries in this area. the practice of education in Uzbekistan is considered one of the tasks that cannot be postponed. Considering that computer science as an academic subject is focused on the development of students' logical and technical thinking, it is necessary to teach it to children as early as possible. Because in high school, the characteristics and way of thinking of students are quite formed, and it is somewhat difficult to change them.

The use of information and communication technologies in the educational process. To use information and communication technologies in the educational process, certain conditions are necessary - conditions, that is, the availability of information resources: a

computer, video projector, multimedia, printer, scanner, modern software. Today, the main component of computer and information technology tools in increasing the efficiency of the educational process: educational programs, multimedia technologies, educational and methodological support for distance education, virtual laboratory, electronic textbook (ET), electronic educational library, international Internet systems, etc. will be important and place.

The effectiveness and perfection of the educational process depends on how information is presented to students, how it is perceived by them and how it is applied in practice. Multimedia technologies provide students with all the information about the pedagogical and economic processes being studied in moving, audio and video formats. This saves the time needed to provide large amounts of information and increases the level of acceptance of new information and its practical use.

In other words, for the ideal use of computers and information technologies in the educational process, the main emphasis is placed, first of all, on creating the necessary conditions for the teacher and student, on the effective use of computers in the educational process, i.e. education and it should be focused on the widespread use of teaching aids.

These thoughts and views have been confirmed in the research of foreign scientists. According to a number of foreign researchers who have studied the importance of information technology in the education of the younger generation, in the process of transition to a new information stage in the development of society, the young generation must wisely use technical means, receive, process and use information, perceive the world on the basis of their own information, it is necessary to develop such skills and competencies, such as an independent attitude to things and events in a rapidly changing information environment and the formation of immunity to various information attacks.

Researchers also emphasize that it is necessary to form children's psychological readiness for the information environment from an early school age. This places qualitatively new demands on primary education, which is considered the first stage of school education, and requires improving children's computer literacy. After all, information technologies in harmony with traditional educational means make it possible to raise a child as a creative person. The possibility of obtaining electronic literature from Inter and using virtual libraries is wide open. Electronic educational literature is a resource that has the ability to collect, describe, update, store, present and control knowledge online based on modern information technologies.

In the electronic textbook used, educational materials must be provided with the ability to illustrate video and audio monitoring with animations, provide a demonstration of complex processes, as well as visualize text, graphics and sound created during lectures. Such electronic textbooks should have simulation components that create virtual experiences and allow the study of various processes at accelerated and decelerated time scales. Experiments must have built-in automation tools to control

the knowledge, skills and abilities of students. These include: an electronic textbook, used in practice, provides the student with information about the subject, purpose and order of training; inform the student about the correctness of the answer; assessment of students' knowledge, control of each student's knowledge; showing the necessary theoretical material and how to solve tasks; He must give feedback in the order “teacher - student of the textbook.”

The structure and content of the electronic textbook used during students' independent work must correspond to the curriculum of the subject being studied and be aimed at in-depth study of the educational material of the subject. An electronic textbook created for the process of training and retraining of teachers must meet the following general requirements.

The content and structure of the electronic textbook must meet the requirements of the educational standard. An electronic textbook must have an intelligent system for teaching problems and research assignments. The electronic textbook includes the automation of such forms of educational activities as search, collection, storage, analysis, processing, as well as the transfer of relevant information, calculations, design and construction, automation of processing the results of experiments, experiments, test tasks, stage and diploma works. automation of information processing during execution is provided. The electronic textbook should contain modeling of the operation of complex objects as part of the means of transitions of various processes in real, accelerated or slowed down time. The learning tools of the electronic textbook are necessary to prepare the student for his future professional activities in the virtual environment of science.

An electronic textbook must have an open visualization system for all calculations performed and show the correlation of values with a description of the variables of the objects or processes being studied. The content and form of the electronic textbook should be developed taking into account the deep differentiation of the requirements of students in the education system. Based on the results of working with the electronic textbook, appropriate practical results should be obtained and, if possible, the personal goals of the audience should be presented. An electronic textbook should allow you to obtain maximum results while spending a minimum of financial and time resources. Electronic textbooks are very effective in creating excellent communication opportunities among students.

In the process of creating an electronic textbook, psychological, pedagogical, technical, technological, aesthetic and ergonomic requirements are imposed. It must meet the didactic requirements of traditional educational materials, such as electronic textbooks, teaching aids. Didactic requirements must comply with specific laws of education and didactic principles of education, respectively.

Taking into account the above goals and objectives, electronic textbooks are being

created for use by qualified professors and teaching staff of Bukhara State University. The technology for creating this electronic textbook has a sufficient amount of work and it is noted that it includes the following stages: determining the goals and objectives of development; development of the structure of an electronic textbook; development of textbook content by sections and topics; preparing scenes for individual structures of an electronic textbook; programming; testing; editing the content of an electronic textbook (ET) based on testing results; preparation of a manual for the user.

When all this is implemented in the education system using new pedagogical technologies, the effectiveness of education will increase and, as a result, will help educate the younger generation at a high level.

List of used literature:

1. Закон Республики Узбекистан «Об образовании». Совершенное поколение – основа развития Узбекистана.- Т.: Шарк.- 1997. С. 20-29.
2. Национальная программа подготовки кадров. / Совершенное поколение – основа развития Узбекистана. - Т.: Восток. - 1997. Страницы 31–61.
3. Абдугаров А.А. и др. Информационные технологии. -Т.: -2002г.
4. Электронный учебник VBA Шаг за шагом. Страница <http://www.firststeps.ru>.
5. Арипов М.М. и другие. Информатика, информационные технологии (часть 1). - Т.: «ТДТУ». -2002 г. 330 стр.
6. Zaripova G.K. Dars jarayonida va undan tashqari tadbirlarda o'quvchi shaxsini shakllanishida hamda uning kasb egallashida o'rta umumiy ta'lim maktabidagi tarbiyaning yetakchi ahamiyati: Vol. 42 No. 1 (2024): ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ | Выпуск журнала № 42 | Часть-1. 76-92.
https://scholar.google.com/scholar_url?url=http://newjournal.org/index.php/01/article/view/12326&hl=ru&sa=X&d=13592918638829847184&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeb2ncyTQaARMr4goepKrrff&oi=scholaralrt&hist=1xFax7AAA-AAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUl0syXIb&html=&pos=2&folt=cit&fols=
7. Zaripova G.K. Madaniyatshunoslik yondashuvi asosida o'qituvchilar umumiy o'rta ta'lim maktabi o'quvchilarini ma'naviy-ma'rifiy tarbiyalash tizimida o'z-o'zini tarbiyalashni shakllantirishining ahamiyati: Vol. 42 No. 1 (2024): ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ | Выпуск журнала № 42 | Часть-1. 50-57.
https://scholar.google.com/scholar_url?url=http://newjournal.org/index.php/01/article/view/12324&hl=ru&sa=X&d=11741118385377896405&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeYAgP8PeiLgFmNT9BSWSZy3&oi=scholaralrt&hist=1xFax7AAAAAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUl0syXIb&html=&pos=3&folt=cit&fols=
8. Зарипова Г.К. Духовно-педагогическая роль самообразования в формировании учащихся общих средних школ как совершенных человек: Vol. 42 No. 1 (2024): ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ | Выпуск журнала № 42 | Часть-1. 58-75.
https://scholar.google.com/scholar_url?url=http://www.newjournal.org/index.php/01/article/view/12325&hl=ru&sa=X&d=9735756815312938566&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeY6jJD0R6zSifDr7G-lp5BC&oi=scholaralrt&hist=1xFax7AAAAAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUl0syXIb&html=&pos=4&folt=cit&fols=
9. Zaripova G.K. The leading importance of education in a secondary school in the formation of the

- student's personality during the lesson process and in events outside him and in his profession: Journal of new century innovations. Vol. 49 No. 1 (2024), Volume-49. Issue-1, 148-163. https://scholar.google.com/scholar_url?url=http://newjournal.org/index.php/new/article/download/12317/11940&hl=ru&sa=X&d=11771490114323368116&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeaQXWfIvnmCGSnZsvFNQYc8&oi=scholaralrt&hist=1xFax7A AAAAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUl0syXIb&html=&pos=1&folt=cit&fols=
10. Zaripova G.K. Umumiy o'rta ta'lim maktablarida o'quvchi shaxsini shakllanishida pedagogik yondashish va uning kasb egallashida yetakchi ahamiyati: - Buxoro: "PEDAGOGIK MAHORAT" ilmiy-nazariy va metodik jurnal. 2023, № 9. 98-106- betlar. https://buxdu.uz/media/jurnallar/pedagogik_mahorat_9_2023.pdf. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:_axFR9aDTf0C
11. Shafiyev T.R. [Development of a mathematical model and an efficient computational algorithm for predicting atmospheric pollution in industrial regions](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:qxL8FJIGzNcC). AIP Conference Proceedings, 2024. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:qxL8FJIGzNcC
12. Shafiyev T.R. [Masofaviy va elektron ta'limning modellari va nazariyasi: masofaviy va elektron ta'limning modellari va nazariyasi](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:M3ejUd6NZC8C). (Buxdu. uz): Tom 1 № 1, 42 tom (2020): Maqola va tezislar toplami. 2023. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:M3ejUd6NZC8C
13. Shadmanov, T. Shafiyev. [Mathematical modeling of the processes of combined heat and moisture transfer during storage and drying of raw cotton](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:Wp0gIr-vW9MC). E3S Web of Conferences, 2023. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:Wp0gIr-vW9MC
14. T. Shafiev, S. Nazarov. [Studies of the influence of vegetation cover on the process of transfer and diffusion of harmful substances in the atmosphere](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:4T0pqqG69KYC). E3S Web of Conferences, 2023. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:4T0pqqG69KYC
15. Shafiyev T.R. [Technology And Relevance Of Creating An Electronic Training Course](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:KlAtU1dfN6UC). ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz), 2021. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:KlAtU1dfN6UC
16. Shafiyev T.R. [Нелинейная математическая модель процесса переноса и диффузии вредных веществ в атмосфере с учетом переменной скорости частиц и орографии местности](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:5nxA0vEk-isC). ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz), 2020. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=t6yS4uUAAAAJ&sortby=pubdate&citation_for_view=t6yS4uUAAAAJ:5nxA0vEk-isC
17. Eshankulov H.I. [Multi-agent tizimarining business intelligence integratsiyasi uchun petri to'ri asosidagi modeli](https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:BqipwSGYUEgC). DIGITAL TRANSFORMATION AND ARTIFICIAL . 90-99-bet. 2-tom. 2024. https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:BqipwSGYUEgC
18. Eshankulov H.I. [Business intelligence dasturlarini bulutga ko'chirish va bulutli hisoblashning asosiy vazifalari](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:BqipwSGYUEgC). DIGITAL TRANSFORMATION AND ARTIFICIAL INTELLIGENCE 1 (4), 1-7. 2023.

- https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:YFjsv_pBGBYC
19. Eshankulov H.I., Zaripova G.K. va boshqalar. [Mathematical model for information monitoring system of fat and oil enterprises](https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:JV2RwH3_ST0C). AIP Conference Proceedings 3004 (1). 2024. https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:JV2RwH3_ST0C
20. Eshankulov H.I. [Katta ma'lumotlar \(Big Data\) ni tahlil qilish usullari](https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:isC4tDSrTZIC). ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz), 2021. https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:isC4tDSrTZIC
21. Eshankulov H.I. [Ontologik yondashuv orqali integratsiyalash usullarining tahlili](https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:bEWYMUwI8FkC). ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz), 2021. 8 tom. https://scholar.google.ru/citations?view_op=view_citation&hl=ru&user=vgUt64gAAAAJ&sortby=pubdate&citation_for_view=vgUt64gAAAAJ:bEWYMUwI8FkC
22. Зарипова Г.К. Духовно-педагогическая роль самовоспитания в формировании учащихся общих средних школ как совершенных личностей: - Вухоро: "PEDAGOGIK MAHORAT" ilmiy-nazariy va metodik jurnal. 2023, № 13. 161-169- betlar. https://buxdu.uz/media/jurnallar/pedagogik_mahorat_10_2023.pdf. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:86PQX7AUzd4C
23. Зарипова Г.К. Миллий меросимиздаги педагогик технологияга оид ғоялардан фойдаланиш: "Узлуксиз таълим". –Тошкент: 2005 й. –№ 1. – Б. 35-40. https://scholar.google.com.vn/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:URolC5Kub84C
24. Zaripova G.K. Masofaviy ta'lim tizimida ilg'or pedagogik texnologiyalardan foydalanish usullari: "Fizika, matematika va informatika". – Toshkent. 2014 y. – №5. – B.114-118. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:SpbeaW3--B0C
25. Zaripova G.K. Informatika va axborot texnologiyalari fanini o'qitishda yangi pedagogik texnologiyalardan ta'lim tizimida foydalanish: "Fizika, matematika va informatika". – Toshkent. - 2014 y. – №3. – B.6-9. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:e_rmSamDkqQC
26. Зарипова Г.К. INTERNETдан фойдаланиш этикаси: "Халқ таълими". – Тошкент: 2006 й. – №1. – Б. 75-77. https://scholar.google.com.vn/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:BwyfMAYsbu0C
27. Zaripova G.K. Informatika va axborot texnologiyalarining jamiyat taraqqiyotida o'rni va istiqbollari: "Fizika, matematika va informatika". – Toshkent. - 2012 y. – №4. – B.6-9. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:kz9GbA2Ns4gC
28. Eshankulov H.I., Zaripova G.K. va boshqalar. Mathematical model for information monitoring system of fat and oil enterprises. International scientific and practical conference on "Modern problems of applied mathematics and information technology (MPAMIT2022)" 11–12 May 2022, Bukhara, Uzbekistan, AIP Conf. Proc. 3004, 060008(2024) <https://doi.org/10.1063/5.0199923>. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:kh2fBNsKQNwC
29. Зарипова Г.К. "Информатика ва ҳисоблаш техникаси асослари" фанини узлуксиз ўқитиш муаммолари: "Узлуксиз таълим". – Тошкент: 2005 й. –№ 6. – Б. 68-70.

- https://scholar.google.com/vn/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:AvfA00y_GEOC
30. Zaripova G.K. Agarkı bu insonni avliyo desak. . . : “Boshlang’ich ta’lim”. – Toshkent: 2006 y. –№1. –B. 6-7.
https://scholar.google.com/vn/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:vbGheppDl1QC
31. Zaripova G.K. Future specialists – spiritual and professional education of secondary school students – a need for the development of our independent country: Educational Research in Universal Sciences, 2(9), 97–105. Retrieved from <http://erus.uz/index.php/er/article/view/3872>.
http://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:VLnqNzywnoUC
32. Зарипова Г.К. Педагогический подход в формировании личности учащегося в общей средней школе и его значение лидера в получении профессии: VOLUME 2, SPECIAL ISSUE 10 SEPTEMBER 2023. ISSN: 2181-3515. 8-22-стр. https://t.me/Erus_uz Educational Research in Universal Sciences, 2(10), 8–22. Retrieved from <http://erus.uz/index.php/er/article/view/3794>.
https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:j8SEvjWINXcC
33. Zaripova G.K. Building the professional competence of globally competitive teachers in digital and information and communication technologies: Journal of Survey in Fisheries Sciences. 10(3S) 2254-2264. 2023. 2254-2264- pages.
<https://sifisheressciences.com/journal/index.php/journal/article/view/844/837>.
https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:-_dYPAW6P2MC
34. Zaripova G.K. Development of professional competence of specialists in the training of teachers in digital and information technologies in our society:- Buxoro: Pedagogik Mahorat. 2022. (maxsus son). 36-43- betlar.
http://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:PVjk1bu6vJQC
35. Zaripova G.K. In the continuous education system, upgrading and retraining of pedagogic personnel is the current demand. “ACADEMICIA: An International Multidisciplinary Research Journal”.ISSN: 2249-7137. Vol. 12, Issue 06, June 2022 SJIF 2022 = 8.252. A peer reviewed journal. – Page. 8.
http://journal.buxdu.uz/index.php/journals_buxdu/article/view/7954/5040;
https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:Tiz5es2fbqcC
36. Зарипова Г.К. Методы использования программами архиваторов в архивировании и резервировании информации:МЕЖДУНАРОДНЫЙ НАУЧНЫЙ ЖУРНАЛ «ИНТЕРНАУКА» №2 (24) /2017 1 т. 140-142-стр.
https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:9yKSN-GCB0IC
37. Зарипова Г.К. Обучения студентов компьютерным технологиям: Российкая федерация. «Готовим урок». – Курск: – 2016 г. 30 июнь. Свидетельство о регистрации СМИ: ЭЛ № ФС 77 – 65563. http://gotovimurok.com/?page_id=28459Ж;
http://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:q3CdL3IzO_QC
38. Zaripova G.K. Internet tarmog;idan foydalanish ko’nikmalari va uning jamiyat rivojlanishidagi ahamiyati:“Maktab va hayot”. – Toshkent. 2015 y. – №7. – B.24-26.
https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:HbR8gkJAVGIC
39. Zaripova G.K., Avezov A.A., Qobilov K.H. Developing the implementation of the digital

technologies' tendency in the training of future teachers. European Journal of Molecular & Clinical Medicine ISSN 2515-8260 Volume 09, Issue 07, 2022. WOS. 5547- 5563- pages. https://www.ejmcm.com/article_20660.html;

https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:5U14iDaHHb8C

40. Zaripova G.K. Umumiy o'rta ta'lim maktabi o'quvchilarining yosh va individual xususiyatlarini hisobga olish – ular tarbiyasi samaradorligini oshirishning muhim faktoridir: “TA'LIM VA INNOVATSION TADQIQOTLAR” “ОБРАЗОВАНИЕ И ИННОВАЦИОННЫЕ ИССЛЕДОВАНИЯ” “EDUCATION AND INNOVATIVE RESEARCH.” ISSN 2181-1709 (P); ISSN 2181-1717 (E); SJIF: 3.805 (2021). 2024/1. 288-296-betlar. https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:YohjEiUPhakC

41. Zaripova G.K. The Problem of Employment in the Digital Economy in the Government of the Russian Federation: Academic Journal of Digital Economics and Stability 2024, Volume 37, Issue 2, feb-2024, ISSN 2697-2212. 1-7.

<https://economics.academicjournal.io/index.php/economics/article/view/885/847>,

<https://economics.academicjournal.io/index.php/economics/>.

https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&pagesize=80&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:rmuvC79q63oC

42. Zaripova G.K. Spiritual and pedagogical role of self-education in the formation of general secondary schools students as perfect persons: Journal of new century innovations. Vol. 49 No. 1 (2024), Volume-49. Issue-1, 133-142. <https://www.newjournal.org>;

<http://www.newjournal.org/index.php/new/issue/view/337>;

https://scholar.google.com/scholar_url?url=http://www.newjournal.org/index.php/new/article/view/12315&hl=ru&sa=X&d=13700377225825864947&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeY811U2g4d6b61RjnlJCsQd&oi=scholaralrt&hist=1xFax7AAAAAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUI0syXIb&html=&pos=0&folt=cit&fols=

43. Zaripova G.K. Umumiy o'rta ta'lim o'quvchilarini komil shaxs sifatida shakllantirishda o'zi-o'zini tarbiyalashning ma'naviy-pedagogik o'rni: “PEDAGOGIK AKMEOLOGIYA” xalqaro ilmiy-metodik jurnal «ПЕДАГОГИЧЕСКАЯ АКМЕОЛОГИЯ» международный научно-методический журнал “PEDAGOGICAL ACMEOLOGY” international scientific-methodical journal. №1(3) 2024.

https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=1xFax7AAAAAJ&sortby=pubdate&citation_for_view=1xFax7AAAAAJ:nrtMV_XWKgEC

44. Зарипова Г.К. Ведущее значение образования в средней общеобразовательной школе в формировании личности учащегося в процессе урока и в событиях вне него и в его профессии: Journal of new century innovations. Vol. 49 No. 1 (2024), Volume-49. Issue-1, 161-184.

https://scholar.google.com/scholar_url?url=http://newjournal.org/index.php/new/article/download/12317/11940&hl=ru&sa=X&d=11771490114323368116&ei=mab_Zeb2LY-Sy9YP6ICD0Ak&scisig=AFWwaeaQXWfIvnmCGSnZsvFNQYc8&oi=scholaralrt&hist=1xFax7AAAAAJ:4401037987834098197:AFWwaebLEXpCNrB4TedFUI0syXIb&html=&pos=1&folt=cit&fols=

ols=