

## АСПІРАНТСЬКІ СТУДІЇ

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### THE USE OF DIGITAL TECHNOLOGICAL SOLUTIONS IN ENGLISH LESSONS

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**Resume:**

The article deals with the teaching English to younger students. The use of new information technologies in teaching English is one of the most important aspects of improving and optimizing the educational process, enriching the arsenal of methodological tools and techniques that allow diversifying the forms of work and making the lesson interesting and memorable for students. A necessary condition for high-quality modern education today is a harmonious combination of traditional education with the use of advanced technologies. The goal of modern education in Ukraine is the development of an active, conscious, responsible, constructive personality. The availability of computers, electronic materials, textbooks, and encyclopedias allows to raise the educational process to a new level.

**Key words:**

teaching English, class organization, new information technologies, modern education.

**Анотація:**

**Рутковський Максим. Використання цифрових технологічних рішень на уроках англійської мови.**

Статтю присвячено навчанню англійської мови молодших школярів. Використання нових інформаційних технологій у навчанні англійської мови є одним із найважливіших аспектів удосконалення та оптимізації навчального процесу, збагачення арсеналу методичних засобів і прийомів, які дозволяють урізноманітнити форми роботи та зробити урок цікавим і таким, що запам'ятовується учням. Необхідною умовою якісної сучасної освіти сьогодні є гармонійне поєднання традиційної освіти з використанням передових технологій. Метою сучасної освіти в Україні є розвиток активної, свідомої, відповідальної, конструктивної особистості. Наявність комп'ютерів, електронних матеріалів, підручників, енциклопедій дозволяє підняти навчальний процес на новий рівень.

**Ключові слова:**

навчання англійської мови, організація класу, нові інформаційні технології, сучасна освіта.

Setting of the problem. A foreign language is an academic subject that, due to its specificity (the creation of an artificial language environment for students due to the lack of a natural one), involves the most flexible and widespread use of various technical teaching aids. Therefore, it is not surprising that in teaching a foreign language, new opportunities opened up by multimedia have found a wide variety of applications.

Teaching English in primary school has its own specifics. It is necessary that in all lessons children feel the result of their efforts as early as possible. To create such an environment, it is necessary to constantly maintain high activity of each child.

The use of digital educational resources can help make teaching a foreign language in primary school effective, which open up truly boundless opportunities for foreign language teachers and offer simple and convenient solutions to a wide range of problems, expand the choice of materials and forms of educational work, make lessons bright and exciting, emotionally and information-rich.

Distinctive features of modern society are the integration of information and communication technologies with scientific and industrial spheres, which requires all members of the information society to be ready to use ICT in their professional activities. Therefore, one of the priority directions of

informatization of modern society is the process of informatization of education, the main direction of which is the implementation of information and communication technologies in subject areas. Many researchers consider a rational combination of traditional educational technologies and modern ICT as one of the ways to modernize secondary education. Traditional pedagogical technologies for teaching foreign languages are limited in the ability to simulate a foreign language environment, take into account the individual differences of students and create conditions for authentic communication in the studied language. Therefore, pedagogy includes computer and telecommunication technology in the educational process and develops methods of its application. Learning a foreign language is based on the complex application of technologies with the aim of forming the necessary educational information and communication environment. The use of ICT tools in foreign language lessons provides an imitation of a foreign language environment, creates conditions for authentic communication, allows taking into account the individual characteristics of students, makes it possible to increase motivation to learn a foreign language and intensify the development of skills and abilities specific to this discipline.

"Information and communication technologies" – information processing technologies using a computer and telecommunications means. First of all, we highlight: the connection of the terms "communication" and "information" with technologies is recorded in a term that appeared relatively recently – info-communication technologies, which emphasize the dual nature of technology – information content (information environment) and communicative capabilities (means of "connection"), a phrase created by which we mean a system of methods and ways of inputting, processing, saving, outputting, searching and transmitting information in computer networks. Traditionally, they are divided into synchronous and asynchronous technologies. These technologies provide both interpersonal and one-way communication; interactive mode of working with educational material, convenient access to integrated knowledge bases, reference books, concentrated in computer funds included in the telecommunications network; dialogization of the educational process, which is carried out in a special information and communication environment (the closest environment of students and other subjects of the educational process using computer and communication technologies, which provides favorable conditions for their activities to achieve educational goals).

The rapid development of software and technical means of creating, storing and processing information in the world is changing the orientations of modern society more and more rapidly. The introduction of information and communication technologies (ICT) into various spheres of human activity does not bypass the field of education. In this regard, the reorientation of the modern teacher's thinking to the awareness of fundamentally new requirements for his activity, the readiness to use ICT as an auxiliary educational resource, is of particular importance. The Law of Ukraine "On Education", the National Doctrine of the Development of Education of Ukraine in the 21st Century and other official documents provide for effective implementation and use of ICT at all educational levels of all forms of education.

The constant interest of scientists in the involvement of ICT in the process of learning a foreign language has not subsided since the time of their invention. A historical approach to the study of the spread of various types of computer technologies in the educational process is presented in the works of many scientists, where three types of development of computer technologies are separated. The study and involvement of ICT in the educational process was carried out by E.S. Polat, N.V. Soroko, N.Yu. Fominykh; O.I. Pometun is conducting a study of the peculiarities of the

introduction of ICT in the process of independent work of students.

Today, there is a wide variety of multimedia educational programs and courses for learning English. Working with these programs allows to better understand the proposed topics and control knowledge.

There are several types of computer programs. Demonstration computer programs allow to visually present new educational material. Information and educational programs are used to form basic concepts, practice basic abilities and skills through their active application in various educational situations. The so-called simulators are used to consolidate material and practice skills, and also provide an opportunity to individualize the learning process. ICT tools make it possible to raise to a qualitatively new level the processes related to measuring the knowledge of those who study the English language. Monitoring programs allow to assess the knowledge and skills of each student in the group, and testing methods are constantly being improved.

The current assessment of knowledge allows to quickly and qualitatively obtain objective information about the level of training of students, to identify weakly mastered sections, and to give recommendations for their re-consolidation. Control of knowledge with the help of ICT tools makes it easier to check the knowledge of a group of students, in addition, automated control is distinguished by the complete coverage of the material and excludes any subjectivity of the assessment, so it cannot depend on the degree of "rigor" of the teacher. Automated control minimizes the number of random evaluations and frees the teacher from routine work. To facilitate the work of writing tests, various systems have been developed that allow to create branched tests, questionnaires, multiple-alternative and single-alternative questions, automatically assign grades to students, process and view results, etc.

The era of the latest information and communication technologies, democratization of management and socialization is accompanied by the formation of an information society. Implementation of computer equipment and use of networking opportunities in everyday life organizational processes are determined by the spread of mass information and its necessity processing in the shortest possible time and instant transmission over long distances. These innovations changed the modern way of doing business, reformatted the management structure and organizational design of organizations, while creating unique competitive advantages for them (Nisimchuk, 2000).

The main feature of modern information and communication technologies is the intangibility of the final product in new and reliable quality information that comes to a certain period of time, in a certain time and space; the requirement of users to increase reliability and the urgency of such information. Analysis of its use confirms the growing role of ICT in global development of a person (Soroko, 2004).

The following data can be considered to confirm these trends. In 2014 on average, 96.4 people per 100 people worldwide used mobile services cellular communication, and 43.6 people per 100 people – internet services worldwide. Ukraine took 71 st place in the world ranking of technology use. If in 2000 slightly more than six percent of the world's population had access to the Internet, then in 2015 this number was more than 43 percent (according to UN data). As a result, 3.2 billion people already connected to a global network of content and applications. In 2020, 70 percent of the population of the planet have cellular devices, and 90 percent have mobile broadband available to the inhabitants of the planet.

Today, wireless networks have developed because the heads of educational institutions and different organizations need access to the Internet at any time and in any place (the concept of access in anytime and anywhere). Now we are witnessing the emergence of the Internet of Things (Internet of Things, IoT) – ecosystems of billions (and trillions) of autonomous devices that interact with each other: sensors, controllers, robots, devices, cars, machines, etc. In a nearby future, what is called 5G is visible – a set of organically integrated technologies of radio access. These technologies carry with them a wave of incredible revolution, which is forever and will fundamentally change the world, communication, information and its perception. In this new world every person, every device, wherever they are, will exchange information in real time mode. The next decades in education and business technology will bring much more changes than have taken place in the last hundred years. The Internet of Things (IoT) will change that way and mechanisms of work of organizations and will force them to rethink their main functions.

The development of modern ICT is one of the most important factors determining the pace and the success of organizations today. ICT has caused significant changes in the educational environment. If consider the active implementation of ICT in the educational environment, then the educational institutions use such technologies in their own activities.

Today, the quantitative growth of Internet users is gradually becoming fundamental new qualitative characteristics that have a positive effect on socio-

economic development with the help of various information and communication networks technologies. Automation devices are beginning to be successfully integrated into the Internet. Based on current trends, we can predict that soon there will be more internet sensors than people / users with mobile phones. By 2025, the total number of web-connected devices to the IoT is expected to reach 26 billions, of which about 15 billion will be mobile phones, tablets, laptops and desktop computers. Nowadays, the appearance of Internet sensors has led to the distribution of environmental sensors and the prerequisites for their implementation in activity educational system.

The possibilities of computer technology in education are most fully realized in electronic textbooks and integrated computer courses, the design and use of which today is one of the main directions of optimization and intensification of philological education. Like any educational computer program, the electronic textbook is interactive, its content is implemented on the basis of hypertext and multimedia, it can include various programs, including those of a controlling or game nature.

The peculiarity of the electronic textbook is the presence of hypertext, sound, animation, video and film fragments in it, which facilitate the assimilation of new material. Recently, textbooks have been developed that allow to choose the level of complexity of the studied material using hyperlinks. The electronic textbook is aimed at students' independent work with interactive materials on a local computer, as well as in local networks and on the Internet. The use of an electronic textbook in the process of learning English allows to ensure the individuality, adaptability and interactivity of learning, the integrity of the presentation of the material, the visualization of educational information and the development of the student's intellectual potential. One of the advantages of using electronic textbooks is that the student can get acquainted with educational materials not only during the scheduled class hours, but also at a time convenient for him. He can return to the necessary topic as many times as he needs. The use of an electronic textbook in the independent preparation of students facilitates the variability and individualization of learning, and also contributes to the development of their cognitive activity. With the help of computer technology, a virtual learning environment is created, which can be built in such a way that it has its own memory of what the students did. With the help of ICT, the user can receive information about the content and modes of working with the information resource, and can also effectively use the content of this resource.

The introduction of computer communications increases the requirements for written communication, implies the ability to use information resources of computer technologies. The main communicative capabilities of computer communication include: multimedia communication, which combines voice, video images and text transmitted over one physical sound line; hyper-media systems that stimulate the user's internal dialogue, revealing ways of thinking, contributing to the comparison of different positions, encouraging independent reflection and evaluation of expressed hypotheses, making independent decisions; telecommunication technologies, which are based on communication, rapprochement, free exchange of thoughts, ideas, information of the participants of the joint project. Among the information systems supporting interpersonal communication, the following types can be distinguished: interactive personal correspondence; delayed personal correspondence; collective interactive correspondence; deferred collective correspondence (forums). It is known that the use of information technologies during foreign language learning determines the intensity of dialogue. This means that if information is exchanged via e-mail, the dialogue slows down because it is done in writing. A high degree of dialogue intensity is achieved with the help of computer conferences, in the process of which teachers and students answer each other's questions and everyone participates in the dialogue, enriching it with information.

Teaching a foreign language with the help of information and technical means is determined by the following criteria: to contribute to increasing the efficiency of the educational process; to provide immediate and constant reinforcement of the correctness of the educational actions of each student; increase awareness and interest in language learning; provide operational feedback and post-operational control of the actions of all students; have the ability to quickly enter answers without long-term coding. The activity of a modern teacher is connected with the need to use visualized means of presenting information in electronic form; collect information received from different sources at different times and combine it into a coherent structure.

For this, the teacher uses the capabilities of computer networks, which provide the use of means of information exchange and the collective use of hardware, software and information resources. In addition, it is also necessary to constantly provide accompanying support in the form of consultations, instruction or training. For example, when working with the materials of the BBC website, it is necessary to explain how to perform grammar tasks,

when working with educational texts, to indicate which of the educational texts offered on the website should be listened to, etc. This platform provides an opportunity not only to read, but also to listen to the news, and the student can even choose the appropriate level of English language proficiency. When working with such educational materials, it will be necessary to independently enter the addresses of the sites in the Internet browser, familiarize yourself with the information of the sites, and only then perform the corresponding tasks. The selected material will be automatically posted on the Internet. To complete the task, students will need to go to the specific site of the developed educational material on the Internet and use the indicated links for navigation. When using Internet resources, the student gets the opportunity to implement various types of information interaction, as well as the opportunity to work in various Internet modes.

The use of digital resources allows to:

- improve the efficiency and quality of education;
- increase students' motivation to learn;
- take into account the regional aspect;
- make lessons emotional and memorable;
- implement an individual approach;
- change the nature of interaction between teacher and student;
- objectively evaluate students' knowledge;
- improve the quality of visibility;
- make the teacher's work easier.

The use of digital technological solutions in educational and extracurricular activities helps to overcome difficulties in learning and self-esteem of students, as it allows them to reveal their capabilities and abilities. Extracurricular work increases the space in which schoolchildren can develop their creative and cognitive activity, realize their best personal qualities, i.e. demonstrate those abilities that often remain unclaimed in the classroom. All this creates a favorable background for achieving success, which, in turn, has a positive effect on educational activities.

Forms of work with the digital resources:

- frontal;
- group;
- steam room;
- individual.

Internet, media resources provide high quality delivery and control of educational material. The presence of a computer and a multimedia projector provides the technical ability to conduct training sessions in accordance with modern lesson requirements.

When studying a foreign language in primary school, the principle of clarity is one of the leading ones. It largely compensates for the lack of a

language environment, filling children's need for sensory perception of individual units of language. One of the most successful forms of preparing and presenting educational material for lessons in elementary school is the creation of presentations. Any stage of the lesson can be enlivened by the introduction of new technical tools (SmartBoard, AIT-Test for higher grades, Cross, etc.) For example, tasks of the following types:

- **word match** – you need to connect a word with its description. Students need to determine the purpose of some public places.
- – you need to select pairs of words (these can be antonyms, synonyms, words with prepositions, etc.)
- – it is required to place sentences in the correct order (restore the course of events, arrange sentences in dialogues, etc.)
- – the question is asked. You need to type the correct answer from the letters provided.
- – you need to arrange the pictures in the correct order. This task can be offered after listening to the text or as a support when retelling and others.

Ideally, a foreign language lesson is an immersion in the environment of the language being studied. However, skill and creativity alone are not enough to achieve the task. Additional supporting resources are needed to recreate this immersive effect.

When using a set of digital technological solutions in the classroom, we must remember three golden rules:

1. Prudently. This means that the use of any means in the lesson must be appropriate and have a practical end goal. When planning a lesson, we need to clearly define why we are working with ICT and what we want to get as a result.
2. In moderation. As we understand, the lesson should be dynamic. The teacher tries to diversify the types of work in order to use all the possibilities of memorizing and mastering the material. It is not worth spending a lot of time on one type of work, as the student gets tired, interest fades, and the useful coefficient of his work drops sharply.
3. Do no harm. The issue of preserving the health of schoolchildren is urgent for us. Therefore, we must adhere to reasonable restrictions “on the duration of continuous use of technical teaching aids

in the classroom,” which are prescribed in sanitary and hygienic norms and rules. After using technical teaching aids associated with visual load, it is necessary to carry out a set of exercises to prevent eye fatigue, and at the end of the lesson – physical exercises to prevent general fatigue (Dyshleva, 2015).

In order to prevent student fatigue, it is not allowed to use more than two types of electronic learning tools in one lesson.

Noting all the positive aspects of using computers, we would like to emphasize that no new information technologies can replace the teacher in the lesson. The teacher remains the main and leading figure in the lesson, and the use of digital technologies should be considered as one of the effective ways to organize the educational process. At an advanced stage, if used correctly, wisely and creatively, it will become a necessary tool for teaching a foreign language.

Conclusion. Therefore, the use of ICT tools in teaching English makes it possible to create an individual educational trajectory. When developing electronic educational resources for the independent work of students, it is advisable to provide for grading the degree of difficulty and complexity of the selected material, the presence of procedures to facilitate generalization processes, the presence of generalizing schemes, accompanying theoretical descriptions with practical examples and hyperlinks to relevant resources, a description of the connection of the educational material with additional didactic resources of a specialized educational portal to support independent cognitive activity of students.

When working independently with foreign literature, you can use computer (electronic) dictionaries, which allows to significantly increase the speed of searching for unfamiliar words, as well as hear the pronunciation of words in both English and American versions. The choice of educational programs and thematic dictionaries for independent work on the English language is determined by the level of English language proficiency, interests and profile of students' training. The prospect of further research is conducting experimental studies of the practical application of various types of ICT in the process of learning English with the aim of choosing the most effective of them.

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