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## IMPLEMENTATION OF IT AND ICT INTO EDUCATION: MULTIMEDIA TECHNOLOGIES IN CREATING AND USING ELECTRONIC BOOKS

**Abstract:** *The article deals with the planning, creation and use of multimedia books in the educational process. Radical changes in all areas of life, innovations in science and culture, transformations in the field of methodical science led to the need to modernize the education system. The authors of the article analyze the need to develop and test standards for the creation of electronic textbooks and textbooks that meet modern social and psychological requirements of the public education system of our republic. The authors argue that the use of electronic resources in the process of learning foreign languages greatly stimulates the development of speech, and most importantly - affects the initiative of learners and students, contributes to their active participation and increases interest in learning the language.*

**Key words:** *Computer Programs, Culture, Skills, Multimedia, Cultural Communication, Contacting Cultures, Innovations, Foreign Languages, Learning Process, Technological approach, Cognitive Process, Language Picture of the World, Electronic Textbook, Multimedia Tutorial, Learning Efficiency, Modernization of the Education System.*

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### Introduction

The rapid development of economic, political and cultural relations of the Republic of Uzbekistan with other states and interstate integration in the field of education in our country and in the world community have demanded the transformation of the entire system of training and education of the younger generation. Therefore, such problems as language and culture, the dual role of language and culture in the development of society, the formation of full interpersonal and intercultural communication are being regularly updated today.

The art of communication has acquired global importance today, because on this basis the relations, mutual understanding and interaction of both individuals and entire nations and states are maintained.

### II. Research area

There is need to improve the content of the education system in the Republic of Uzbekistan at the present stage, especially taking into account the transition from man-made to anthropogenic civilization, humanization of education, mastering the achievements of both national and universal world culture. In turn, this necessitates the introduction of innovations in the educational process in order to improve the quality of training young people. This fully applies to the method of teaching languages in the secondary school with the Uzbek language instruction, in lyceums, colleges and non-linguistic universities. Here we have two main problems in mind.

The first problem is that one of the obstacles to intercultural communication is the national – specific characteristics of the contacting cultures, which creates serious difficulties in the study of languages by learners and students, which, naturally, requires

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carrying out appropriate linguistic and linguo - didactic research.

The second problem is the need to create, test and introduce into practice the teaching of new pedagogical technologies and teaching aids, because the technologies used today do not provide an adequate level of assimilation of program material in terms of forming (along with language, speech and communication) cultural competence of students, which negatively affects the quality of intercultural communication that is in great demand both in the modern world and in the multinational Republic of Uzbekistan.

And the most essential component in the multifunctional process of intercultural communication is language, since "the language of a people is its spirit, and the spirit of a people is its language, and it is difficult to imagine something more identical" [1, p. 359]. The modern degree of communication resources has opened up new horizons for humanity on the field of educational activity, but at the same time it has set new tasks.

A.V. Sokolov, revealing the meaning of the term "post-neo culture", writes that "this is a computerized world with multimedia channels and cultural heritage stored in distributed memory of computer networks. This is the time of the domination of communication - electronic communication. The formation of electronic communication is not yet complete. There are experiments on speech input and output of information in computer systems" [2, p. 145].

"Electronic communication is based on space radio communication, microelectronics and computer equipment, and optical recording devices" [2, p. 147].

When the Internet has become a global communication channel providing worldwide multimedia messaging, the e-book comes out on top, pushing the book, the video.

A.V. Sokolov distinguishes between the following levels of communication culture: literature - literacy - multimedia.

Literature is a level of communication culture when all cultural meanings are transmitted in social space and time through oral communication.

A book is a state of culture when basic cultural meanings are transmitted through document communication. The bookishness is divided into the following generations: handwritten book, typography and machine polygraphy.

Multimedia is achieved when the basic cultural senses are transmitted through electronic communication [2, p.232]. The widespread use of computers and computer technologies in the education system of the Republic of Uzbekistan is an urgent task. The development of electronic textbooks and teaching aids in our country in the framework of the practice of highly developed countries and educational system programs is a requirement of the time. We need to develop and test standards for the

creation of electronic textbooks and textbooks that meet modern social and psychological requirements of the public education system of our republic.

Radical changes in all areas of life, innovations in science and culture, transformations in the field of methodical science led to the need to modernize the education system. One of the possible ways for further development of this area is innovation, namely managed processes of creation, perception, evaluation, development and application of pedagogical innovations. This concerns the content of education, methods and forms of training and education, organization and management of the work of educational institutions, etc.

According to A. Gracheva, innovative approaches to learning are divided into two main types, which correspond to the reproductive and problem orientation of the educational process.

1. Innovations - modernization, modernizing the educational process, aimed at achieving guaranteed results within its traditional reproductive orientation. The underlying technological approach to learning is primarily aimed at giving knowledge to students and shaping modalities of action, focused on highly efficient reproductive learning.

2. Innovations - transformations that transform the traditional educational process, aimed at ensuring its research character, organizing search educational and cognitive activity. This search approach to learning is aimed at developing students' experience in the independent search for new knowledge, their application in new conditions, the formation of the experience of creative activity with the development of value orientations"[3, p.17].

Naturally, the reproductive and problematic orientations of the educational process give rise to two main innovative approaches: technological and search. If the first approach modernizes traditional learning based on the prevailing reproductive activity of students and defines the development of learning models as an organization for students to achieve clearly defined learning standards, the second approach transforms traditional learning based on students' productive activities and defines the development of learning patterns as initiated learning

It is clear that the opportunity to independently develop a new experience, methods of actions, personal meanings is developed within the framework of the second approach to learning.

When creating electronic multimedia textbooks, a search-based approach to learning should be used, which makes it possible to create conditions such as involving learners and students not just in activities, but in creative activities (creative, independent) activities, due to: 1) the type of learning activities (observation and practical action prevails over listening or is accompanied by it), 2) the logic of the cognitive process (induction prevails over deduction), 3) the psychology of the cognitive process (analysis

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through h, the connection of intuitive and logical, associative and heuristic mechanisms), 4) the source of knowledge (based on the image, on the visibility, acquiring a new function in innovative training) ”[3, p.18].

In the development of innovative teaching methods, taking into account the unity and connections described for the learning process described by Yu. K. Babansky [4, p. 9] plays an important role. This, above all, the unity of teaching and learning; the more diverse the sensory perceptions of the educational material, the more firmly it is absorbed; the inability to achieve the desired effect in the allotted time, if not provided the proper motivation of this activity, a positive attitude towards it; the effectiveness of training naturally depends on the choice of optimal combinations of teaching, stimulating and controlling methods; the effectiveness of training is naturally determined by the choice of forms of training and the availability of optimal teaching and material, moral and psychological conditions for learning.

A large role in innovative learning is played by the teacher’s choice of such methods and means of learning that contribute to involving learners in active work, creating for each student the condition for achieving optimal participation in the learning process. In our opinion, in order to achieve the goals of innovative education, it is very productive to use a computer as a carrier of a training program that allows students to visually see in the dynamics many processes that were previously formally absorbed from the text of a textbook or tutorial.

Nowadays many researchers refer to democratization, humanization, and implementation of innovative strategies in a situation of computerized education as the main trends of innovation processes. A computer makes it possible to simulate certain processes and situations, choose from a number of possible solutions the most optimal according to certain criteria, i.e. significantly expands the possibilities of visual methods in the educational process.

As you know, by the nature of the contribution to the theory and practice the innovative technologies are divided into theoretical and practical. If researchers include new concepts, approaches, hypotheses, trends, patterns, classifications, principles in teaching and education, teaching methods, obtained as a result of research and development activities, which are the basis of innovation processes, then new innovations include new methods, rules, algorithms, programs, recommendations in the field of didactics, educational theories, technological teaching aids, demonstration equipment, training and control devices, models, devices, audiovisual tools.

There are the following types of e - learning products: skills training, educational and introductory

exercises, educational games, mastering the concepts, modeling, etc.

Multimedia is a complex concept meaning a code, a collection of chances, possibilities, multi – conditionality that exists in all modern computers [7].

The use of multimedia contributes to mastering the skills of active speech communication. The basis of multimedia learning is the text. Types of work based on the text and in connection with it help to overcome the barrier between the classroom and the real situation of communication, facilitate the transition to the conditions of real communication. When using multimedia, a complex and visual presentation of educational material takes place and self - control skills are formed.

The development of hearing and pronunciation skills is carried out on the basis of a whole coherent text or its fragments. Introduction of multimedia into the learning process (for example, reading literary works by a speaker) forms the skills of perception of sounding speech, in - depth understanding of the interaction of linguistic (lexical and grammatical and into national design) and extra linguistic means during the formation of the meaning of the statement in the sounding speech.

The use of multimedia in the process of teaching oral speech greatly stimulates the development of speech, and most importantly - influences the initiative of students, contributes to their active participation, generally increases interest in learning a language.

Multimedia, attracting the attention of the student, promotes interest in the topic that is being studied, the accumulation of cross-cultural knowledge, thereby allowing to significantly improving the quality of language classes.

It seems that the systematic use of multimedia opens up broad prospects for use various language materials in classes, techniques and teaching aids, which, of course, greatly intensify the learning process. The problem of the impact of multimedia on the student deserves special consideration.

The use of multimedia, representing the current level of technology, raises the prestige of learning foreign languages [8, p. 9] The use of multimedia is a very difficult problem and is a complex of issues of linguistics, psycholinguistics, pedagogy, psychology, computer science and other fields of science, the achievements of which must be considered when introducing multimedia into the educational process. Practical experience shows that the appropriate and systematic use of multimedia can greatly help students in improving the quality of language skills, enhancing linguistic competence and acquiring communication skills [10].

As it is known, motivation is one of the basic conditions for any successful human activity, including training. It is also a central factor in learning. To create a high and stable level of student

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motivation, it is now necessary to look for special mechanisms that stimulate and increase the student's creative activity. In the educational process, the factor that stimulates motivation can be multimedia, which includes exciting educational material that enhances the emotional background of the activity. In addition, multimedia helps to create a linguistic environment in the audience, which contributes both to the improvement of phonetic and lexical skills and abilities, as well as a solid mastery of cross - cultural information.

Thus, the functional and informational and didactic capabilities of multimedia transform it not only into a source of information, but also into an instrument of knowledge capable of connecting the illustrative - explanatory method with the process of searching and acquiring knowledge.

The visualization of educational material, the connection of the graphic series with sound and auditory, visual dialogues, movement, color provide a figurative transfer of information have an emotional and aesthetic impact on students, create prerequisites for problem-based learning. Dynamism, sound, movement and image, demonstration of individual fragments, close-up, multi - aspect image, course of action, frame slowdown, combination of the sound of the narrator's voice with the image, as well as contextual clarity, different types of independent tasks and feedback - all this increases the arsenal of methodological techniques used in electronic resources help the teacher to more effectively manage the pedagogical process [11].

With the modern communicative method of language teaching, scientists consider communicative activity in three aspects: 1) as free communication in real time through the use of electronic networks; 2) as an interactive dialogue interaction of the student with the computer (human-machine dialogue) and 3) as the communication of students in the process of working with an electronic program [12, p.13]. It is clear that a computer can perform several functions: communicative, training, controlling, teaching, but one should not forget that the computer is also a means of supporting the activities of the teacher in improving the organization of the learning process.

Due to the possibilities of implementing all the above functions, the computer is most often used in the process of self-study and homework of university students. Using electronic materials, learners and students independently prepare messages, select additional information and didactic material, copy the necessary material according to the play pattern, and make visual aids, draw up albums. Electronic resources, according to our observations, are an effective tool for remote language learning of students in rural schools of our Republic .It is very essential nowadays in the period of pandemic.

In our opinion, when there was (and it still continues) a revolution in the technological

possibilities of providing communication (the invention and spread of the Internet), there is an active construction of a new pedagogical theory based on the patterns of the use of inter - individual communication provided by computer tools for didactic purposes. Such training is called "online" distance learning, elements of which are used with the invention of interactive television.

In other words, it can be said that electronic multimedia educational resources form the process of communication in the distance learning in the conditions of intercultural communication are very vital.

In this situation, we can create the language learning programs for our students with the help of multimedia technologies. The use of interactive methods in the educational process - is the requirement of time. The purpose of this is the formation and improvement of the skills of mastering innovative educational technologies taking into account state standards and modern curricula, as well as their application in professional activities.

The computer, being a practical innovation, allows use multimedia within the framework of consideration of semantic communication of a person and a computer. Multimedia significantly stimulates the development of oral speech, and most importantly - develops the initiative of students, contributes to their active participation in the learning process as a whole, and significantly increases the interest in learning the foreign language.

The creation, planning and use of high-quality e-learning multimedia books is a complex process that requires a lot of time and effort of language teachers, involving the active participation of linguists, methodologists, psychologists, cameramen and designers. The result of this creative work is that electronic multimedia books, can be used both in the traditional methods of teaching languages and in the newest educational technologies. It is intended for students of non-linguistic universities, studying the course "New pedagogical technologies", methodologists, practicing teachers who are interested in questions of new forms and methods of teaching, studying problems in teaching languages. Thus, we came to the conclusion that one of the main obstacles to intercultural communication are the national and specific features of the contacting cultures, which create certain difficulties in learning languages. This position has a special social and political significance, especially now when Uzbekistan has entered the world arena and intercultural communication has become very important.

### III. Conclusion

As practice has shown, the implementation of innovative strategies in a situation of computerized learning helps to significantly expand the possibilities of intercultural learning. Taking into account the

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achievements of linguo - didactics, generalization and organization of experimental studies and analysis of their results led the authors of this article to the logical conclusion about the need and feasibility of developing and creating new, computer multimedia programs for the continuing education of the younger generation.

All considered above, computer technology is the easiest and most convenient method of introducing educational material.

Having studied the works of leading methodologists, the basis of which the system of principles that is based on the personal activity and management approaches, we identified several principles of teaching in a modern school and university. The study has shown that the experimental training conducted by the authors of this article using electronic multimedia resources, made it possible to maximize the quality of language teaching, individualize the training and ensure the high efficiency of the learning process.

Experimental training conducted by the authors of this article gives grounds to offer electronic multimedia books in the context of intercultural communication, which is a practical way out of the problem under study, the effectiveness and efficiency of which was proven by many years of experimental work in various regions of the Republic. The positive of the proposed methodology with the use of computer technologies in language classes was confirmed by an analysis of test data, questionnaire data conducted in language and non - linguistic lyceums of the Republic of Uzbekistan. Of course, we do not consider the proposed electronic multimedia books as the only possible one.

Summing up, we would like to point out, that the prospects of research in this area in relation to language learning are seen in various scales. among them:

1. Development of electronic linear and multimedia textbooks on language learning for secondary school students, students of academic lyceums and vocational colleges, language and non-linguistic higher education institutions;

2. The creation of electronic multimedia dictionaries, educational textbooks for language teaching;

3. Further development of the theory and practice of planning, development and creation, as well as the use of electronic multimedia textbooks of the new generation for lifelong education;

4. Determination and justification of the didactic principles of material selection for using it in the electronic literature;

5. Development of further guidelines for the creation of electronic multimedia literature: textbooks, dictionaries, manuals and teaching materials;

6. Conceptual development of problems of language teaching methods using the latest technologies in the context of interactive teaching methods;

7. The creation of modern computer multimedia technology for schools, lyceums, colleges and universities together with methodologists, linguists and programmers;

8. Creation of the methodical system usage of computer multimedia technologies when teaching languages.

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