Training Future English Teachers in the Context of Using Digital Technologies in Uzbekistan

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In the era of globalization, it is crucial for individuals in various fields to possess knowledge and Abstract: communication skills in multiple foreign languages, in addition to a strong command of their native language. In order to meet this demand, it is necessary to improve the learning and teaching methods of foreign languages, using more modern approaches and integrating digital technologies into lessons. Our country places significant importance on the education of innovative and creative individuals, regardless of their field of specialization. It is important for students, regardless of their specialty, to have a comprehensive understanding of the IT field and the ability to independently use digital technologies, as well as the ability to learn foreign languages, in particular English. The primary goal of digitalizing education is to enhance the quality of education and prepare young people to be competitive professionals in various fields, particularly in the realm of digital technologies. Achieving this requires transitioning to a new level of sophistication by implementing theoretical and methodological advancements in utilizing digital technologies within the educational process. Digital technologies impact all aspects of human activity. By incorporating digital technologies into the educational process, students' motivation to learn increases. Furthermore, it facilitates research and educational activities such as searching, editing, storing, presenting, and creating information, allowing for the full utilization of the didactic potential of digital technologies. This, in turn, fosters the development of digital literacy, which can be seen as a new form of literacy.

SCIENCE AND TECHNOLOGY PUBLICATIONS

1 INTRODUCTION

Currently, the Republic of Uzbekistan is facing the urgent issue of developing the pedagogical education system to train qualified personnel who can think independently and make correct decisions in various situations. According to UNESCO recommendations and the "Changing Our World: 2030 Agenda for Sustainable Development" adopted by the United Nations General Assembly, digital literacy should be integrated into all forms of pedagogical education and lifelong pedagogical activities. In June 2021, a Swiss publisher evaluated the use of digital technologies by English language teachers, as well as their attitudes, skills, and competencies, based on the results of the International Conference on Human-Computer Interaction. A survey was conducted with the participation of 283 foreign language teachers from 43 countries. According to the survey conducted by a group of experts from Norway, Russia, Cyprus, and Greece, many foreign language teachers use various

computer-based learning technologies, but they face challenges in fully utilizing these digital technologies to inadequate technical infrastructure. due Additionally, many English language teachers express dissatisfaction with their level of knowledge in the field of digital technologies, which can be attributed to a lack of professional training in this area. Paragraph 5 of the Decree of the President of the Republic of Uzbekistan dated May 11, 2022, No. PF-134, titled "Digitalization of the education system," highlights the task of creating information systems and electronic educational resources for the digitization of education. Future teachers should be equipped with the ability to utilize digital technologies in their professional activities and create multimedia electronic educational resources to enhance the educational process. Moreover, the decree emphasizes the importance of content enrichment on interactive virtual educational platforms such as SmartLand and Edumarket, as well as the preparation of scientific-popular short animation videos (Edukids) for primary school

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students. In order to improve the professional skills of English language teachers, it is crucial to integrate digital technologies effectively into every lesson. This need for the effective use of digital technologies in English language training cannot be overstated. The strategic goals and objectives of the modernization of the higher education system in Uzbekistan should be implemented by studying modern world experiences, which are largely related to international relations and intercultural relations. In the conditions of linguistic and digital transformation of the world, it is impossible to imagine a successful person who does not have a foreign language and digital competencies. The increase in the volume of intercultural communication associated with the integration of currently developing digital technologies into the student's communicative activity increases the importance of knowing a foreign language as a means of communication and, at the same time, sets new tasks for the methodology of teaching a foreign language. In this regard, nowadays, instead of the term "information and communication technologies", we come across the term "digital technologies". Nowadays, this concept clearly reflects modern information more technologies and their specific features. Digital technologies are an innovative method of organizing the educational process based on the use of electronic systems that provide visual representation. The purpose of using digital technologies is to increase the quality and efficiency of the educational process, as well as to successfully socialize students. From this point of view, our research is aimed not only at the use of digital technologies, that is, digital educational resources, but also at developing the ability to independently create them and effectively apply them to the educational system. At the stages of development of digital technologies, virtual, augmented reality and artificial intelligence are gaining popularity. Augmented reality is a technology that connects students with the virtual and real world. As P. Arvanitis Arvanitis (2019) noted, the introduction of virtual and augmented reality technologies into the educational process allows for a creative approach to the implementation of communicative tasks in teaching English, increasing educational efficiency, as well as increasing the interest and motivation of students. In turn, Y. Bonner and H. Reynders (Antoniadi and Grubich (2020) and Bonner and Reinders (2018)) emphasize that despite the fact that virtual and augmented reality applications are becoming more and more popular in the modern world, they are still not widespread enough in English language learning. According to

I.V.Ivanilova, E.V.Yurkevich, L.N.Kryukova, the location of objects of the real and virtual world in three-dimensional space allows to demonstrate their interaction in real time Biletska, Paladieva, Avchinnikova, and Kazak (2021). Virtual images that students can see directly in the training make the educational material visual, lively and memorable Ivanilova, Yurkevich, and Kryukova (2020). K.S.Antoniadi, T.Yu.Grubich stated that AR shows the connection between real and virtual world very clearly. The 3D image allows you to visually enter virtual reality, which, another of course. psychologically attracts a person and activates his attention and sensitivity to the information component. Regardless of the subject being studied, augmented reality helps to increase its attractiveness for students and increases the motivation to learn Antoniadi and Grubich (2020). Some scientists have proposed pedagogical strategies for the formation of digital competence in students in the process of learning a foreign language. According to him, with appropriate pedagogical support, digital technologies allow to develop the digital competence of future foreign language teachers that meet the requirements of modern society. At the same time, it can increase the effectiveness of teaching foreign languages and contribute to the personal development of students Karsenti, Kozarenko, and Skakunova (2020). Scientists such as S.Khanbalaeva Khanbalaeva (2023), I. O. Bileskaya, A.F.Paladieva Biletska, Paladieva, Avchinnikova, and Kazak (2021) recommend the use of digital technologies in the training of future foreign language teachers. According to them, it is necessary to include digital technologies in training programs for future foreign language teachers. It is believed that these programs should reveal aspects of effective use of digital technologies and their creation in future professional activities. M.E.Mamarajabov's research focused on enhancing the professional-pedagogical training of future teachers in the digital education environment. It emphasized the alignment of traditional and digital technologies, as well as the development of personal and professional qualities and motivation for learning during training and practical experiences Mamarajabov (2022). D.N.Mamatov's research explored the pedagogical design methodology and technologies for preparing students for professional careers in the digital educational environment Mamatov (2022). Overall, through these studies, it is widely recognized by researchers that digital technologies have a positive impact on the effective learning of the foreign language. Based on the definitions provided by these scholars, it can be

concluded that digital literacy refers to the ability of future foreign language teachers to independently select and effectively apply digital technologies in the context of digitized education. It also involves interpreting, searching, creating, editing, and distributing digital information, serving as both an individual and social skill.

2 METHODOLOGY

In the course of the research, it was proved that it is possible to develop the ability of digital linguistic construction in the course of teaching "Information technologies in education" among the students of "Philology and language teaching". "Information technologies in education" subject "Philology and language teaching" bachelor's course of education to have mastered the methods of information collection, storage, processing and their use from the general competencies given in the qualification requirement, z to be able to make independent decisions in their professional activities and to conduct non-traditional training sessions using modern information and pedagogical technologies from professional competencies, to support the organization and conduct of the training process in the institutions of the continuous education system, will be the basis for the development of skills such as participation in research, data collection, generalization and analysis, of and implementation acquisition modern pedagogical and information technologies Sadriddin, Miralimov, Makhmudov, and Akhmadiyorov (2019).

Tools such as augmented reality and intelligent technologies provide many opportunities for students and help make the learning process more attractive and interactive. For this reason, within the framework of our research, methods and means of effective organization of the educational process with augmented reality technologies have been identified Zainabidinov and Madaminov (2020).

Methods of using augmented reality and artificial intelligence technologies in education are reflected in the structure of MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education). According to the structure of MARE and MAIE, it is assumed that the educational process will be organized using digital educational resources such as augmented reality and artificial intelligence.

The structure of MARE and MAIE results in immersive content. Immersive content is when students interact with what they see and feel like they are in reality. This can be achieved by creating interactive content. For example, you can interact with the video, answer questions that appear during the video, make decisions, or interact with artificial intelligence. Students learn digital technologies in real and virtual environments with the help of immersive content.

Using the capabilities of artificial intelligence will increase the possibilities of education. Artificial intelligence contributes to the individualization of education, enables the improvement of the evaluation system by automating the evaluation and rating, and facilitates access to the language environment through the use of chatbots and text analysis tools. AI-based platforms can analyze student data and adapt curriculum to their needs, making language learning more effective and fun.

Students will be able to organize the process of effective foreign language learning using augmented reality technology, create educational objects of augmented reality, demonstrate virtual objects using the augmented reality system, should have the ability to choose augmented reality tools and methods of their application depending on the problem at hand.

In the teaching of the subject "Information technologies in education", it was carried out and controlled on the basis of the stages of development of students' skills in using digital technologies (adaptive-analytical, research-constructive and creative-design). The stages of developing students' knowledge of digital technologies and the system of educational tasks for each stage have been developed on the educational platform "Information technologies education" in https://classroom.google.com/c/NjU3OTgyMDE0M TEw and digital technologies Information about digital educational resources that help to develop knowledge about education is reflected in the educational guide "Information technologies in education".

A total of 564 1st-year students of "Philology and language teaching" bachelor's education took part in the experiment. Of these, 281 students were included in the control group and 283 students in the experimental group.

The experimental group was given appropriate educational tasks for each stage of the development of skills in the use of digital technologies in the subject "Information technologies in education", and the grades were determined according to the results of the exercises conducted for control. In the control group, it was organized on the basis of traditional training based on the experience of professors and teachers.

3 RESULTS

The use of digital technologies by students of "Philology and language teaching" undergraduate education as a result of the effective implementation of educational tasks related to the use of augmented reality and artificial intelligence in the teaching of "Information technologies in education" development of skills was observed.

Mirzo Ulugbek National University of Uzbekistan (UzNU), Uzbekistan State University of World Languages (UzSUWL), Termiz State University (TSU) and Shahrisabz State Pedagogical Institute (ShSPI) were selected as test sites. 140 students from UzMU, 142 students from UzDJTU, 137 students from TerDU, 145 students from ShDPI, a total of 564 students took part in the experimental work.

Experimental work was carried out at the stages of identification stage (2020-2021 academic year), highlighting stage (2021-2022 academic year) and confirmation stage (2022-2023 academic year).

The scientific-theoretical, scientificmethodological foundations of the research problem were studied at the stage of the experimental-test work, the purpose and tasks of the research were determined, the research object and its indicators and the criteria corresponding to it were analyzed and studied from theoretical sources. The need to use the structures of MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education) in the development of students' skills in the use of digital technologies in the field of "Philology and Language Teaching" was determined scientifically and theoretically, and working hypotheses were formed. The methodological, scientific-theoretical. scientific-methodical foundations of the research problem, the scientific literature and the cases of using augmented reality and artificial intelligence in the development of students' skills in using digital technologies, organizational methods and tools were analyzed. Analyzing the sample subject program of the subject "Information technologies in education" in the "Philology and language teaching" curriculum, organizing the teaching process based on the proposed modules on the components of digital technology skills a system of educational tasks was developed to help students develop their digital technology skills, and digital tools such as Quizlet, Jamboard, and Web-AR Studio were used to complete them Makhmudov and Abduraimova (2020).

At the emphasis stage of the experimental work, the goal was to effectively organize and

conduct the "Information Technologies in Education" training with the help of MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education) structures. Lesson plans and digital educational resources based on augmented reality technologies of the subject "Information technologies in education" were created, and through their use, the method of developing the skills of students of the "Philology and language teaching" educational direction in the use of digital technologies was developed.

At this stage, the teaching of "Information technologies in education" was carried out and controlled based on the stages of development of students' skills in using digital technologies (adaptive-analytical, research-constructive and creative-design).

At the approval stage of the trial work, the educational tasks and digital educational resources developed on the basis of the structures of MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education) are tested in practice and how they are used, to determine the mastery of students. and the results of pilot-test works on development were studied and analyzed.

The quality of the conducted experimental works was analyzed in terms of quantity, a conclusion was drawn on the quality indicators, and their analysis was checked on the basis of mathematical and statistical methods. The results of the "Philology and language teaching" educational course (experimental and control groups) students conducted in the experimental areas were summarized, mathematically and statistically analyzed and formalized (see Table 1).

From this statistical analysis and the presented diagram, it can be concluded that the experimental work "Philology and language teaching" educational direction allows students to learn through MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education) structures. criteria that help to determine the effectiveness of the use of educational tasks based on the experience that the use of digital technologies using augmented reality and artificial intelligence in teaching "Information Technologies in Education" to students is one of the important qualities that lead to the development and improvement of skills. it was tested through trial works and its effectiveness was determined. According to him, 10.3% according to the motivational-organizational criterion, 10.4% according to the cognitive-active criterion, 10.9% according to the reflexive-communicative criterion, and 10.9% according to the creative-creative criterion

efficiency by 13.1%, overall efficiency is 13.4%, it was proved by mathematical statistical methods.

Table 1: General results of experimental work statistical table.

Statistical indicators		Higher education institutions where the experiment was conducted				
		UzNU	UzSU WL	TSU	ShSPI	Total
Experimental groups		70	72	69	72	283
Control groups		70	70	68	73	281
Average value	EG	4.20	4.18	4.26	4.24	4.22
	CG	3.73	3.71	3.76	3.78	3.75
Efficiency		1.13	1.13	1.13	1.12	1.13
Student Statistics		9.39	9.46	9.52	9.28	37.86
Efficiency		1.13	1.13	1.13	1.12	1.13
Student Statistics		9.39	9.46	9.52	9.28	37.86
Degree of freedom of statistics		135.20	137.08	132.41	138.92	549.53
Critical value		1.98	1.98	1.98	1.98	1.97
		H1 the	H1 the	H1 the	H1 the	H1 the
		hypothesis is	hypothesis	hypothesis	hypothesis	hypothesis
Criterion summary		accepted	is accepted	is accepted	is accepted	is accepted



Figure 1: Average learning rates of experimental and control groups



Figure 2: Performance indicators

4 DISCUSSIONS

At the final stage, that is, based on the statistical values and hypothesis results obtained on the basis of the results of the educational tasks corresponding to the creative-creative criterion, the N0 hypothesis is rejected and the N1 hypothesis is accepted because the statistics are T critical<T empiric. It can be seen that the results of the selected experimental groups are different from the results of the control groups, their average mastery rates are 4.22 and 3.75, and the efficiency rate is 1.13 times higher. the confidence interval was between 4.20 and 4.24 in the experimental groups, and between 3.73 and 3.76 in the control groups, and their non-interference with each other, the reliability and accuracy of the research was proved by mathematical statistical methods Rakhimov, Askarov, Abdullayev, and Kamilova (2024).

Mathematical-statistical analysis of the general result of the experiment-test work conducted in higher education institutions and it was found that the learning in the experimental group is 13% higher than in the control group. The general results of the experiment showed that the performance of the experimental group increased compared to the control group in the creative-creative evaluation criterion, which determines the development of the skills of using digital technologies of the students in the experimental group Askarov, Karimov, Mirzayeva, and Askarova (2024). This proves that the method of developing students' skills in using digital technologies and the used digital educational resources of the "Philology and language teaching" educational direction have had a good effect in the educational process. It was determined that 1.13% efficiency was achieved by processing the results of the experiment with the help of mathematical and statistical methods.

5 CONCLUSIONS

Based on the main results of the conducted scientific research, the following conclusions were reached: The educational direction "Philology and language teaching" developed a model for the development of students' skills in using digital technologies, based on which the teaching methodology was developed ("Information technologies in education" based on the topics offered in independent education. stages, methods and tools of teaching and development of digital skills) were proposed, MARE (Mobile Augmented Reality Education) and MAIE (Mobile Artificial Intelligence Education) structures of mobile education based on augmented reality and artificial "Teaching" intelligence were called limda information technologies" was improved and put into practice on the basis of integration into training.

Based on the use of Quizlet, Jamboard, Web-AR Studio digital information services for students, the content of the subject "Information technologies in education" was improved, the teaching method was improved based on the structure of mixed education, mobile education, MARE and MAIE, and using these methods It was proved that it has a positive effect on the effectiveness of education Makhmudov, Askarova, Xasanov, and Askarov (2024).

Based on the processing of the results of the experimental work using mathematical and statistical methods, it was justified that the ideas put forward in the research were appropriate, and the development of the skills of using digital technologies of the students of the experimental group in the teaching of "Information Technologies in Education" was confirmed to the students of the control group. proved to be 13% higher.

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