

The Teacher's Role in the Use of E-learning Technologies for English Language Learning in Higher Education: the Neural Impact of Electronic Services on the Student's Brain

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Abstract: *The process of globalization affects all areas of the education system, necessitating the correlation of the sphere of professional activity with the requirements for the competence of a modern specialist. Mastering the current information and communication space determines the need to master the unified tool of interaction technologies of e-learning English in higher education institutions. Future graduates of higher education institutions, no matter what field they work in, need skills that promote interaction, implementation of professional self-development. Training highly professional specialists with not only theoretical knowledge and practical skills in their specialty, but also advanced means of communication, electronic platforms, knowledge of a foreign language is fully consistent with the main task of the university. Knowledge of a foreign language contributes to professional culture, creates opportunities to freely navigate in the studied scientific research from the field of knowledge. Higher education professors face the task of not only creating the conditions for learning a foreign language, but also to purposefully motivate students to master it as a necessary competence for carrying out professional activities. The study of a foreign language should be professionally oriented, contribute to the solution of cognitive and communicative needs of students. The article researches the most effective e-learning technologies in English classes in higher education institutions (HEI); defines the role of the teacher when using e-learning technologies of English language in higher education institutions; describes the educational centers and platforms for e-learning; defines the neural influence of electronic services on the brain of the student.*

Keywords: *IC technology, electronic services, neuropedagogy, digital learning, online services.*

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Introduction

Today's information technologies, e-learning technologies in English classes at universities are becoming increasingly popular, based on the introduction of up-to-date technical means and teaching methods with a competence-oriented orientation, ensuring maximum student involvement in the learning process. Among traditional e-learning technologies in teaching foreign languages are popular video conferencing, chat rooms, news groups, blogs, concordances. Today's e-learning technologies include wiki technologies, which help to intensify group work; bots - services that allow you to store and share texts and other information; and software for distance learning.

Domestic researchers Yu. Davydenko (2008), N. Korniets (2011), D. Prykhodko (2014) believe that professional orientation of foreign language training through the use of electronic technologies for students in higher education institutions will form the ability to self-improvement. The professional orientation of foreign language training related to the formation of the ability to carry out communication in professional situations, intercultural contacts, readiness for self-education in a transforming multilingual world, mobility and flexibility in solving problems in the professional sphere of activity is of particular relevance. Foreign and Ukrainian researchers (Acklam, 2008; Stanley, 2006; Komogorova, 2021; Maksymchuk, 2021) prove that online learning effectively develops the brain and keeps it in excellent physical shape, and learning through electronic services can have an impact on human intellectual abilities because new neural connections are formed and neuroplasticity improves; neurons are the main cells in our brain, which are connected by synapses.

The purpose of the article is to investigate the most effective e-learning technologies in English classes in higher education; determine the role of the teacher when using e-learning technologies in the English language in higher education institutions; describe the educational centers and platforms in e-learning; determine the neural impact of electronic services on the student's brain.

The neural impact of electronic services on the student's brain

With the development of digital technology, the possibilities of its use in education are expanding at different levels: from junior high school to the final years of higher education and professional training. Every year there are more and more online platforms and courses for children and adults in a variety of specialties. However, along with this comes a growing

number of concerns about the negative impact of such educational services on the quality of learning and even the mind of the child. Many parents are convinced that computer training leads not to development, but to irreversible degradation of a schoolchild's abilities.

Online learning effectively develops the brain and keeps it in great shape. Learning through electronic services can affect a person's intellectual abilities because new neural connections are formed and neuroplasticity is improved (Cherednichenko, 2011).

Neurons are the main cells in our brains that are connected by synapses. According to American neurobiologist and University of California professor emeritus Loretta Graziano Broening, new experiences are needed to train our brains and form new, stable synaptic connections between neurons. In her book "Translating Neural Pathways," the researcher writes that the more varied experiences our brains have, the more neural connections are formed. This means that the more formats and learning opportunities a student has at his disposal and the more varied strategies he uses, the better his brain works.

It is the emergence of new habits that allows us to develop greater neuroplasticity. This term refers to the ability of our brain to adapt depending on the situation and experience gained. To develop this quality, it is necessary to constantly change patterns of behavior. And improving neuroplasticity doesn't just help with learning. It makes it easier to adapt to the changing conditions of life, react faster in complex and ambiguous situations, which is especially relevant in today's world.

N. Korniets (2004) notes another important point: the main thing is not the amount of practice, i.e., the number of hours spent on learning new material, but regularity, because neurons stop working for a long time without being used. It is the same with our bodies: if a person who is used to exercising all the time suddenly abandons active exercise, he quickly loses mass and his muscles melt away before his eyes. It can be said that training with the help of digital platforms is a real workout for the mind: 15 minutes of exercise, like morning exercises, help to keep the brain toned. Electronic services for learning English offer many short and interesting tasks that are suitable for daily intellectual gymnastics. These include the fun and clever problems from the "Break" section, which can be used for cognitive five-minute lessons, the interactive "1C:School" tasks, and the game tools in the themes of different subjects.

Also, researcher L. Strelchuk (2012) of this problem emphasizes that it is e-learning that has unconditional advantages over the classical format in terms of developing intellectual abilities. This is due to the fact that online

platforms are often constructed in a way that includes so-called cognitive training, which improves working memory, concentration, responsiveness and efficiency of the student. Yes, the tests and assignments are specifically designed not only to practice specific tasks, but also to improve overall intellectual functions. For example, new tasks based on "Drag-and-drop" technology, which helps students develop the skill of perception of instructions, as well as develops voluntary attention.

The most effective e-learning technologies in English classes at the university

The most effective e-learning technologies in the process of learning English in higher education institutions are (Berbets, 2021; Berbets, 2021; Babii, 2021):

- Web chats that promote communication in the process of self-study;
- Internet resources based on original material with an accessible form of presentation;
- Social networks that offer interaction with native speakers.

Web chats, as e-learning technologies, in the process of additional self-study of English present an opportunity to communicate with foreigners on the basis of the Internet. A variety of programs presented in Web chats are aimed at promoting conversational practice, mastering the grammar needed to communicate. One of the popular sites was Italki, originally designed for informal communication. Gradually this site was used to learn English (and not only) by Skype. In the process of self-improvement italki can be used for communication on the Internet on the basis of a wide range of issues - from dating to communication on professional issues, search for partners to solve scientific and cognitive problems. The use of Italki format can be recommended for students wishing to get conversational practice in an intensive conversational mode (Drofa, 2012).

Language social network Speaky (version Gospeaky), as a technology of e-learning, allows you to communicate in text chat, record and correct messages in a foreign language, edit individual phrases in the chat, improve both spoken and written language. The Tandem program, as an e-learning technology, is positioned as an application for finding professionally-oriented information, and, above all, interlocutors close in their specialty, cognitive interests, intellectual level, etc., is also very effective in the process of improving communication skills (Polykarpova, 2018).

Internet resources, e-learning technologies are currently gaining popularity as new information technologies aimed at achieving a new quality

of teaching foreign languages. The use of information technologies in the study of a foreign language in higher education allows us to successfully solve such pedagogical problems as:

- individualization of the educational process on the basis of taking into account the cognitive interests of students;
- increasing and intensifying the effectiveness of the learning process;
- activation of independence of students in educational and scientific-cognitive activity by means of a foreign language;
- interactivity.

As practice shows, the most effective e-learning technologies have become:

- virtual communication with native speakers, contributing to the comprehension of the present-day language, the study of culture;
- participation in international telecommunication projects, Olympiads, and voice chats;
- the prospect of participation in international scientific journals, publication of materials in a foreign language.

The use of information and communication technologies and e-learning technologies involves systematization of the studied material, creates a number of advantages, consisting in the authenticity of the material studied differentiation based on the multilevel training of students. In mastering the main areas of foreign language study, it is necessary to pay attention to all types of speech activity (speaking, listening, reading, writing, etc.), involving original newspaper texts with mandatory control, including work on the lexical material, communicative exercises, linguistic analysis of oral or written statements. In this context, phraseology, neologisms, common and frequently used proverbs and sayings are analyzed, reflecting the specific features of the functioning of the language under study (Cherednichenko, 2011).

One of the effective forms of e-learning technology in learning a foreign language has become e-mail, an international exchange of letters, offering the establishment of correspondence for joint projects, discussion of the latest developments in the professional sphere of activity, etc.

The role of the teacher in the use of e-learning technology in the English language in higher education institutions

When using the methodology of teaching a foreign language based on information and communication technologies changes the role of the teacher, who becomes a facilitator, creating and supporting the conditions that contribute to the achievement of the goal. The change in the teacher's role increases the importance of self-monitoring when students learn a

foreign language in higher education. Social media are constantly evolving to include new collections of online tools, platforms, and applications. It allows interactive communication on the level of "teacher-student", "student-student", which contributes to the promptness of posting various learning materials on the network. Social networks allow to optimize the learning process by reducing classroom hours in the process of teaching a foreign language, make the learning process multifactorial interesting, diverse from the methodological point of view. The didactic potential and peculiarities of using virtual social networks are due to the fact that there is no need to organize students' adaptation to the new communicative space (Foley, 2006).

The most effective was the use of the electronic network Zoom, one of the Internet services of Generation Web 2.0. The network allows you to post audio and video recordings; adjust the practice of creating and defining the content of your own personal page, getting access to the pages of other users. The above-mentioned possibilities determine the variability and diversification of foreign language teaching methods.

The use of virtual social networks by students in the process of self-study allows for a continuous process of learning a foreign language, taking it beyond the classroom sessions.

During the training stage the teacher gives the students her/his recommendations, guides them to search for various information. Language social networks in the process of intensification of foreign language learning are aimed at accelerating the learning process, allowing an individualized training process, helping to improve the use of multimedia, improve writing skills, allow you to enrich your vocabulary based on today's English language (De Haan, 2020).

The use of the Internet, electronic technologies in the implementation of current information and communication technologies is an auxiliary technical means of learning, and its effectiveness is determined by the content of the implemented programs, their content, the presence of multimedia support, etc., since communication in a foreign language cannot be carried out outside of live dialogue. One of the studies related to the study of the needs and preferences of people in the choice of forms of learning English, indicates that the use of different technologies in "live communication" contributes to the implementation of mass training of basic types of speech activity. The main task of teaching a foreign language consists in qualitative assimilation of educational material, in a significant increase in individual intellectual resources of students, in creating maximum personalization-oriented conditions for disclosure of creative potential of each student, in his/her self-realization, in implementation of scientific and practical, research and project activities.

Educational centers and platforms in e-learning

The decision on how to use Internet tools can be different, but they should be aimed at achieving didactic goals and ensuring the quality of learning via the Internet. In today's world of informativeness, saturated with various electronic resources, universities have to compete fiercely with various educational centers and online platforms that promote foreign language learning. This approach is driven by an attempt to understand what today's students expect when using e-learning tools, to check the development path of non-commercial educational platforms, and to understand whether the educational platform of universities should follow them or try to develop their own niche in education, Handbook (2009).

The digital services developed by the university's staff facilitate the organization of full-fledged learning. Teachers can view whether students are attending online classes, track activity on the educational portal to evaluate students' completed work (Stavytska, 2021).

Remote consultations can also be conducted. The portal focuses specifically on students and does not currently provide for its use as a teaching tool for foreign language courses (Strelchuk, 2020).

It should be noted that due to the forced transition to distance learning, university teachers actively used not only the capabilities of the educational portal, but also turned to other educational platforms and Internet services. Among them, it should be highlighted those that allowed classes in the mode of messengers, chats and video conferencing (Rashevskaya, 2012).

"The Educational Portal" is developing and the staff is working to improve it, trying to use the tools available on the Internet in free and paid access to help teachers organize the learning process. In higher education programs are didactic and technical materials, namely the organization of the learning process, teacher-student communication, teaching materials, teachers' and students' skills in using new technologies. These difficulties are noted by all teachers, referring to the practice of distance learning: "Distance learning puts forward new requirements to teaching materials: availability of video content, and in the format of short thematic clips, modular division of the course, testing on passing each module, availability of network means of interaction both with other students and with the teacher (forums, etc.)", (Rashevskaya, 2012, p.45).

Teachers who are engaged in creating their own materials for teaching a foreign language, highlight the following problems: a lot of time to develop a course, when creating EEMC (electronic educational and methodical complex) the inability to modify the developed course (recorded on CD-ROM), unstable computer literacy when creating their own programs

for exercises and automatic processing of results, problems and difficulties in interacting with programmers and developers (sometimes connected with the usual misunderstandings). The development of communication channels makes it possible to partially compensate for this shortcoming through the use of videoconferencing and e-mail.

Educational platforms and the individual tools available on them have many functions. The reality represented by the use of educational platforms in the didactic process can vary depending on the quantity and quality of the tools used and the organizational model adopted (Kutsa, 2012).

The difference between the platforms lies in the accessibility, the teacher's choice, the forms of classes, the types of exercises, the different consequences of consent or refusal to learn, the different degree of independence of the user, an important circumstance is the motivation of the student. The student does not feel that he is studying for his own sake or for entertainment. A person who chooses free opportunities on a commercial site positions himself/herself, first, as having fun with these exercises in his free time, and secondly, feels that he gets what he needs for free (it's nice to get something for nothing, for which you would have been charged elsewhere).

Conclusion

The importance of the article lies in the study of the most effective e-learning technologies in English classes at universities and it is determined that the most effective e-learning technologies in the process of learning English at universities are web-chats, promoting communication in the process of self-education; Internet resources based on original material with an accessible form of presentation; social networks, offering interaction of electronic services with native speakers. The most common electronic services are Web-chats as e-learning technologies in the process of additional self-study of English, which present an opportunity to communicate with foreigners on the basis of the Internet.

The role of the teacher when using e-learning technologies of English language in higher education institutions is also determined and it is proved that when using the methodology of foreign language learning based on information and communication technologies, the role of the teacher changes dramatically, who becomes a facilitator and creates and supports the conditions that contribute to the achievement of the goal. The change in the functions of the teacher increases the importance of self-control in the acquisition of a foreign language by students in higher education institutions.

The article describes educational centers and platforms in e-learning. Also determined the neural influence of electronic services on the brain of the student and proved that e-learning, learning with the help of computer technology absolutely does not harm the human brain, but on the contrary, contributes to its active and rapid development. Digital platforms help increase the number of active brain cells, keep them toned and form stronger connections between them. Online resources develop neuroplasticity, helping to better adapt to rapidly changing conditions, as well as train general mental functions such as memory and attention. Therefore, there is no need to fear the potential harm of advanced technology to your child. E-learning is a real exercise for the mind that develops its strength, flexibility, agility and speed.

The article investigates the most effective e-learning technologies in English classes at institutions of higher education; the role of the teacher when using e-learning technologies in the English language at institutions of higher education; educational centers and platforms for e-learning are described; the neural impact of electronic services on the student's brain is determined.

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The Author 3 defined the role of the teacher in the use of e-learning technologies in English language classes in higher education institutions.

The Author 4 described the educational centers and platforms in e-learning.

The Authors 5, 6 defined the neural influence of electronic services on the student's brain.

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