



UDC 81'243:378.147

[https://doi.org/10.52058/2786-5274-2025-11\(51\)-1960-1969](https://doi.org/10.52058/2786-5274-2025-11(51)-1960-1969)

Krichker Olha Yukhymivna Candidate of Historical Sciences, Lecturer of Language Training Department of National University of Civil Protection of Ukraine, Cherkasy, <http://orcid.org/0000-0002-8810-1062>

Minenko Olesia Vasylivna Candidate of Philological Sciences, Associate Professor, Associate Professor of Language Training Department of National University of Civil Protection of Ukraine, Cherkasy, <http://orcid.org/0000-0002-6674-4075>

Yeremeieva Nataliia Fedorivna Candidate of Philological Sciences, Associate Professor, Associate Professor of Language Training Department of National University of Civil Protection of Ukraine, Cherkasy, <http://orcid.org/0000-0002-3691-0298>

AI-BASED PROFESSIONAL ENGLISH LANGUAGE TRAINING FOR FUTURE PERSONNEL OF THE SES OF UKRAINE

Abstract. The article is devoted to the research of the role of artificial intelligence tools and instruments in the process of learning a foreign language by the future personnel of the State Emergency Service of Ukraine. It is stated that AI-based tools can determine the level of knowledge, analyze weak and strong points of learners, find effective tasks providing a ready-to-go personalized educational direction, and provide feedback. It is concluded that AI-powered training programs are a key to the digital universe of language activities that can help future professionals understand and practice specific language phenomena; moreover, they allow for the simulation of real-life scenarios related to the future profession and explain the positive impact of a good command of English on the future careers of learners. The authors prove that AI can serve as a powerful tool to help teachers prepare personalized learning materials, provide feedback to students, and identify their individual learning needs. The authors doubt that the learning process can be full-fledged without a teacher because technology cannot build a rapport with students, as only a teacher can stay connected with students to provide guidance and encouragement, and all the necessary scaffolding (creating detailed instructions, conducting consultations, and technical training). The authors believe that when using Internet resources, a teacher must carefully consider the goals, since their unsystematic use is likely not to give the desired outcome. It is emphasized that the use of Internet technologies and resources in a foreign language classroom allows for the development of various types of students' activity, motivating



them to work more efficiently in the classroom, representing it as a model of their future workplace, and contributing to the formation of linguistic competence of the future SES specialists. It is summed up that for the future personnel of the State Emergency Service of Ukraine who are involved in the international trainings, English is a key tool for their successful cooperation. Thus, teachers should motivate students by meeting their needs and broadening their horizons by means of integrating information and computer technologies and AI in education to foster a more personalized learning environment to allow students to achieve the best possible outcome.

Keywords: AI, the English language, learning process, linguistic competence, the SES of Ukraine.

Крічкер Ольга Юхимівна кандидат історичних наук, старший викладач кафедри мовної підготовки, Національний університет цивільного захисту України, м. Черкаси, <http://orcid.org/0000-0002-8810-1062>

Міненко Олеся Василівна кандидат філологічних наук, доцент, доцент кафедри мовної підготовки, Національний університет цивільного захисту України, м. Черкаси, <http://orcid.org/0000-0002-6674-4075>

Єремєєва Наталія Федорівна кандидат філологічних наук, доцент, доцент кафедри мовної підготовки, Національний університет цивільного захисту України, м. Черкаси, <http://orcid.org/0000-0002-3691-0298>

ВИКОРИСТАННЯ ІНСТРУМЕНТІВ ШІ ПРИ НАВЧАННІ ПРОФЕСІЙНОЇ АНГЛІЙСЬКОЇ МОВИ МАЙБУТНІХ КАДРІВ ДСНС УКРАЇНИ

Анотація. Стаття присвячена дослідженню ролі інструментів та засобів штучного інтелекту в процесі вивчення іноземної мови майбутніми співробітниками Державної служби України з надзвичайних ситуацій. Зазначається, що інструменти на основі штучного інтелекту можуть визначати рівень знань, аналізувати слабкі та сильні сторони здобувачів вищої освіти, знаходити ефективні завдання. Зроблено висновок, що навчальні програми на базі штучного інтелекту є ключем до цифрового всесвіту мовної діяльності, який можуть допомогти майбутнім фахівцям розуміти та практикувати конкретні мовні явища. Крім того, вони дозволяють моделювати реальні сценарії, пов'язані з майбутньою професією, а отриманий рівень знань може стати гарантією кар'єрного зростання. Автори доводять, що штучний інтелект може служити потужним інструментом, який допомагає викладачам вищих освітніх закладів готувати персоналізовані навчальні матеріали, надавати зворотний зв'язок здобувачам та визначати їхні індивідуальні потреби в навчанні. Автори ставлять





під сумнів той факт, що процес навчання може бути повноцінним без викладача, оскільки технологія не може побудувати взаєморозуміння з учнями, і лише викладач може тримати руку на пульсі і забезпечувати всебічну підтримку (створення детальних інструкцій, проведення консультацій та технічного навчання). Автори вважають, що під час використання інтернет-ресурсів викладач-мовник повинен ретельно враховувати цілі, оскільки безсистемне використання технологій не дасть бажаного результату. Наголошується, що використання інтернет-технологій та ресурсів на заняття з професійної англійської мови дозволяє пропонувати студентам різні види діяльності, мотивуючи їх до ефективнішої роботи в класі, представляючи його як модель їхнього майбутнього робочого місця, що сприяє формуванню лінгвістичної компетентності майбутніх спеціалістів ДСНС.

Підсумовується, що для майбутніх співробітників Державної служби з надзвичайних ситуацій України, які беруть участь у міжнародних навчаннях, англійська мова є ключовим інструментом для їхньої успішної співпраці. Таким чином, викладачі повинні мотивувати студентів, розширюючи їхній кругозір шляхом інтеграції інформаційно-комп'ютерних технологій та штучного інтелекту в освіту, щоб сприяти створенню більш персоналізованого навчального середовища, яке дозволить студентам досягти найкращого можливого результату.

Ключові слова: ІІІ, англійська мова, процес навчання, лінгвістична компетентність, ДСНС України.

Problem statement. First, COVID and later the full-scale invasion have dramatically changed the lives of Ukrainian people in general, alongside the sphere of education. The challenge with distance learning that the pedagogues faced during the virus attack turned out to be nothing special compared to the unstable and dangerous conditions for organizing the educational process under martial law, namely, air raid sirens, internet outages, blackouts, etc. All these have affected both the learning process and its outcomes in Ukraine.

Thousands of citizens fled to find a better life in Europe, and many parents decided to choose foreign schools and higher educational institutions to keep their children far away from the war and its dangers. For Ukrainian refugees, it was abroad that they understood the value of having a good command of English, both for adults to have better job opportunities and for teenagers to enter prestigious higher educational institutions.

There's no need to argue that the English language has taken a top position among other languages and is used as a lingua franca for written and oral communication all over the world in every possible area of life to establish contact among representatives of different nations. It is a must-have nowadays because it can pave the way to a successful life, ensure career growth, and is a symbol of self-development and self-improvement.





Moreover, the resolution of the Cabinet of Ministers of Ukraine of May 2023 “On Approval of the Procedure for Translating into Ukrainian Acts of the European Union’s *Acquis Communautaire* and into English Acts of Ukrainian Legislation Related to the Fulfilment of Ukraine’s Obligations in the Field of European Integration” has emphasized its exclusive position and has further consolidated its leadership over all the other European languages.

On top of that, heading to the EU, the Verkhovna Rada of Ukraine passed the law No. 9432 “On the Use of the English Language in Ukraine” according to which English has become the language of international communication in the state.

All these factors prove the necessity of having a good command of English to achieve success.

However, from the point of view of foreign language pedagogues and teachers, the question is how to help their learners improve their level of English to make them competitive in the world market. One of the answers is to motivate them by integrating modern technologies into the educational process to make it more captivating. It is a fact of common knowledge that the most significant manifestation of scientific progress in today's world is the sphere of artificial intelligence (AI), which is widely applied in various spheres of life.

Analysis of recent studies and publications. In the last decades, domestic and foreign scientists devoted their papers and research, and focused their attention on the use of AI tools in education, and the impact it has on the foreign language learning process, its advantages and disadvantages, ways of application, and the outcome. The role of artificial intelligence in higher education is the focus of study for Drach I., Regeilo I., Slobodyanyuk O., Aarakit S., Donnell F., Elasu J., Ocen S., Olupot C., Porter M., Fitzgerald D., etc. The impact of AI instruments on higher education is a field of scientific interest of Gorchinsky S., Sofilkanich M., Petrea G., Vieriu A. M., Xin Tan, etc.

The article is aimed at researching the role of artificial intelligence tools and instruments in the process of learning a foreign language by the future personnel of the State Emergency Service of Ukraine.

The task is to consider various possibilities of AI for effective teaching of the English language for professional purposes: its advantages and ways of application since the AI-based innovative methods have become the key not only to exciting foreign language learning, but also a source of creative ideas for effectively overcoming educational losses and gaps with an eye on using its tools not for its sake but for the sake of enhancing linguistic skills of students.

Presentation of material. The professionally oriented learning for the SES personnel refers to the process of learning a foreign language and is focused on reading professional texts, acquiring professional vocabulary and terminology, as well as communicating in the field of professional activity. The essence of professionally oriented foreign language learning lies in its integration with specialized subjects to gain additional professional knowledge.





Acquiring vocabulary in a professional field, particularly for the future SES personnel, has its own characteristics that must be taken into account in the process of learning a foreign language. The automatic memorization characteristic of younger teenagers hardly works in adults and is of little help in learning specific foreign vocabulary. Most of the professional words and phrases that students use in their speech come from books, textbooks, or classes with teachers, as stated by K. Lomb [1].

When working on expanding vocabulary, K. Lomb advises taking two important things into account. First, memorize words in context; second, be sure to compile their own dictionary.

There are no questions about the first rule—we all understand the decisive role of context. Regarding the second practical recommendation, K. Lomb explains the benefits of compiling such a dictionary. Each word that enters such a dictionary is associated with a specific moment in students' activities and personal impressions. By writing down a word, phrase, or sentence in their own dictionary, they put it into their own context, making it easier to remember it when they need it — they record the circumstances in which we encountered the word, the time, the events that were happening at that time, and sometimes even the mood they were in when they were working on the word [1].

Ye. Rudeshko and other scientists believe that the solution to the problem of foreign language learning for the learners of non-linguistic specialties should be based on the use of communicative methods aimed at enabling communication and immersion in the language process [2, p. 48]. According to scientists, communicatively oriented teaching is a prerequisite for success in the practical mastery of a foreign language.

According to L. Smirnova, when teaching foreign languages to students of non-linguistic specialties, it is necessary to apply an integrated approach that allows creating the necessary cognitive space for establishing knowledge-functional interconnection, realizing oneself as subjects of professional and linguistic environment, and forming motivation to learn a foreign language in the context of future professional activity [3, p. 492].

The educational process, as well as the approach to learning English, has undergone significant changes with the development of technology and the integration of artificial intelligence. AI-based programs offer personalized learning, instant feedback, and interactive communication, transforming language acquisition into a more effective and engaging process.

Artificial intelligence is widely acknowledged for playing a big role in the sphere of education, helping learners to master new skills and acquire knowledge. There are many interactive programs adapted for learning, which, in a way, simplify many technical tasks thanks to AI instruments that analyze and process a lot of different information and perform tasks much faster than traditional methods of learning a foreign language, which are certainly more time-consuming in comparison with the use of artificial intelligence tools.





Now that we live faster and smarter, students are waiting for more from their teaching instructors. They require more challenging tasks related to the chosen career, and they need to see how the acquired material can help them in their future work to get promoted faster and receive a higher payment. That is why when learning English for professional purposes, it is necessary to simulate real-life scenarios related to their future profession and explain the impact a good command of English can have on their future careers.

A vivid example that can show the importance of learning English for the future specialists of State Emergency Service of Ukraine can be provided on the example of the experience of the personnel of the National University of Civil Protection of Ukraine who participate in various international conferences such as International Commander and Commandant Conference – 2023 in the Netherlands, SICC Series CBRN Conference 2023, SICC Series CBRN Conference 2023 in Italy and common projects and experience exchange, for example Exchange of Civil Protection Experts – Ukraine and the Netherlands, etc. Thus, only a high level of professional English proficiency provides access to international opportunities, networking, and cooperation.

As to the advantages of using artificial intelligence tools in the foreign language training system for students of the SES of Ukraine higher education institutions, we can choose some features that make their application especially valuable. Firstly, AI-based platforms are available anytime, no matter where you are, which gives students the possibility to learn when they can, need, or are inclined to, even, due to the current situation, in a bomb shelter. AI tools automatically determine the level of knowledge, analyze weak and strong points, allowing for understanding which topics should be paid more attention to, and even find effective tasks for learning a foreign language, providing a ready-to-go personalized educational direction for learning.

Unlike traditional foreign language learning tools, artificial intelligence corrects mistakes on the spot and chooses the most appropriate lexical equivalents, which is highly important when it comes to terminology. Some examples of translation of professional vocabulary by the GPT chat can illustrate the need for help in finding professional equivalents to avoid ambiguity that can lead to misunderstanding: *containment* is *локалізація* for firefighters and *стримування емоцій* for psychologists; *backdraft* is *вибух вогню через рантові надходження кисню*; *flashover* is not just *спалах* but *момент одночасного займання всіх горючих матеріалів у приміщенні*; “*Copy that*” is *зрозумів* in professional communication of rescuers and firefighters. Moreover, due to AI tools for writing, it is possible to choose the informal, neutral, or formal register, differentiate between the varieties of British and American English.

Online simulators or virtual instructors interact with students roleplaying real-life conversations, adapting to various contexts, and thus engaging students in dialogues where they have a great opportunity to practice the target language in a safe environment. Character.ai can be of great help in developing real-life scenarios where





students should respond to an AI character and deal with professional situations. For example, a virtual watch commander (WC) can be created and programmed to give commands to a firefighter (F) (a student) so that the firefighter should read or listen to the commander and respond to get a new instruction, e.g.

“WC: You arrive at the scene of fire. A large building is on fire and people are still trapped inside.

F: Copy that. What shall I do?

WC: You need to assess the situation and determine the best course of action. There is smoke coming from the building and people screaming for help.”

Some elements of gamification, such as points, rewards, and progress tracking, motivate students by creating a relaxed atmosphere. What is more, AI-based translation tools help students understand texts, documents, or video materials in the target language by providing instant translations, contextual explanations, and pronunciation guidance [4, pp. 150-151].

According to the Ukrainian researchers A. Brutman and T. Naumchuk, AI performs four main functions in foreign language classroom: as an independent assessment of students' achievement (knowledge control, automated task checking, error detection and correction); learning assistant (voice assistants, automatic online translators and automatic text correction); global learning due to online access to various events and networking around the world; and individual approach to learning a foreign language which means that everyone can work at their own pace [5, p. 216].

Thus, the AI-based resources are an endless and powerful basis for creating an information environment for education and self-education of people, satisfying their professional and personal interests and needs. AI-powered training programs have many advantages over traditional teaching methods. They are a key to the digital universe of infinite types of language activities that can help future professionals understand specific language phenomena, develop linguistic skills and abilities, and create communicative situations.

T. Vdovchyn and R. Bilyi consider that to use digital tools in language training more effectively, it is necessary to take into account the communicative aspect of the training process for all the participants of the educational process [6]. They advocate for online collaboration, including organizing discussion forums, working on joint documents, webinars, and video conferences to discuss professional issues. The researchers give the examples of how AI-powered tools can help assess students' competencies using digital technologies: electronic portfolios, projects, video materials, etc. They are used as a place to store students' works (results of online tests, surveys, interactive tasks) for further assessment. However, there is still a problem in developing fully effective assessment criteria for certain kinds of work using digital technologies, and there is a need to develop innovative ways to assess students' academic achievements and get the most detailed feedback.

Another issue concerning the topic in question is rethinking the role of a teacher in the age of AI. It is one of the challenges for teachers since the integration of artificial



intelligence instruments into the educational process. Teachers' attitudes toward this technology can affect its effectiveness and efficiency. On the one hand, some teachers are against modern technologies and consider AI tools and instruments evil that interfere with the learning process and spoil everything good. On the other hand, some teachers may fully rely on artificial intelligence and have excessive confidence in it, which can result in focusing on technology itself rather than on the fundamental pedagogical aspects of teaching. Therefore, it is necessary to strike a kind of balance between the use of artificial intelligence and the real needs of teaching and pedagogical principles.

To sum it up, artificial intelligence can serve as a powerful tool that helps teachers prepare personalized learning materials, provide feedback to students, and identify their individual learning needs.

However, we should bear in mind that without teachers, the learning process is incomplete because students need, first of all, human support, i.e., teachers should build a rapport with their students to understand their current mood and professional requests and, correspondingly, provide motivation, insights, and stay connected with students to provide guidance and encouragement. Thus, an ongoing dialogue, an equilibrium between artificial intelligence and teachers, is important for the effective use of technology and meeting learning needs [7, p. 210].

Conclusions. It is difficult to imagine a modern foreign language class where there is no place for AI instruments and information technologies in the educational process. AI has outdone all the previous ways of acquiring a language and has proved its practical benefit. The use of Internet technologies and resources in a foreign language classroom allows for a deeper and more profound implementation of a whole range of methodological, pedagogical, and psychological principles. Pedagogues have witnessed that the use of computer educational programs can increase the effectiveness of solving communicative tasks, develop various types of students' speech activity, motivating them to work more efficiently in the classroom, which is a model of their future workplace. So, when learning a foreign language, an active use of innovative technologies can contribute to the formation of linguistic competence of the future SES specialists.

However, when actively introducing information technologies into the educational process while training future specialists of the SES of Ukraine, each educator must remember that an AI-powered instrument can't substitute a human in the educational process and it is just a tool that helps to widen the capabilities and vary teaching activities because its methods have been developed for general situations and may not necessarily meet all the specific needs in particular spheres, such as educational activities, or teaching objectives which may limit students' learning experience as well as tailoring learning to the specific needs of students. This aspect should be taken into account to be constantly aware of the fact that artificial intelligence should be regarded to as an additional tool rather than the only teaching method which means that the role of integrating information and communication technologies into





the educational process lies in improving of the teaching methods of academic disciplines and primarily related to the modification of traditional methodology in terms of its efficiency, individualization, and rationality.

Thus, language teachers using Internet resources in the learning process must carefully consider their goals, since the unsystematic use of Internet resources is unlikely to produce the desired results, and they must also provide students with the necessary support (creating detailed instructions, conducting consultations, and providing technical training). Moreover, traditional teaching methods should not be discarded. Combining them with the latest technologies will make the learning process more flexible and dynamic and contribute to positive results.

Finally, all of us are aware now of the fact that any international activity or meeting requires engagement of participants in co-working, socializing, and networking; consequently, a good command of English is compulsory for its participants. As for the future personnel of the State Emergency Service of Ukraine, namely, rescuers, fire safety engineers, occupational safety specialists, etc., who are involved in the international trainings, English is a key tool for their successful cooperation. Thus, teachers should motivate students by meeting their needs and broadening their horizons by means of integrating information and computer technologies and AI in education to foster a more personalized learning environment to allow students to achieve the best possible outcome.

References:

1. Lomb Kato. Harmony of Babel. Profiles of famous polyglots of Europe. Retrieved from http://www.tesl-ej.org/pdf/ej66/TESL-EJ_HarmonyOfBabel.pdf
2. Rudeshko Ye., Ivanenko H. (2015) Inshomovna komunikativna kompetentnist studentiv yak peredumova yih profesiynogo rozvytku [Foreign language communicative competence of students as a prerequisite for their professional development]. *Mizhnarodnyi dosvid u vykladanni inozemnih mov: tezy dopovidey – International experience in teaching foreign languages: abstracts*. P. 48-50. [in Ukrainian].
3. Smirnova L. (2014) Integrovaniy pidhid yak neobhidna skladova organizatsiyyi protsesu inshomovnoyi osviti na nemovnih fakultetah [An integrated approach as a necessary component of organizing the process of foreign language education at non-linguistic faculties]. *Naukovi zapysky – Scientific notes. Issue 128. Series “Philological sciences (linguistics)”*. P. 490-493. [in Ukrainian].
4. Khaidari, N.I., Yuhnovets, N.P., Sabltova, A.P. (2025). Shtuchniy intelekt v systemi inshomovnoyi pidgotovky studentiv zakladiv vyschoyi osvity. [Artificial intelligence in the system of foreign language training for students of higher education institutions]. *Inovatsiina pedagogika – Innovative pedagogy*. Issue 80. P.150-151. Retrieved from http://www.innovpedagogy.od.ua/archives/2025/80/part_2/80-2_2025.pdf [in Ukrainian].
5. Brutman, A., Naumchuk, T. (2023) Shtuchniy intelekt na zanyattakh inozemnoyi movi za profesiynym sprsamuvannyam u zakladakh vyschoyi osvity [Artificial intelligence in professional foreign language classes in higher education institutions]. *Suchasni dosiidzhennia z inozemnoyi filologii – Modern research in foreign philology*. № 1 (23). P. 211-218. doi:10.32782/2617-3921.2023.23 [in Ukrainian].
6. Vdovychyn T.Ya., Bilyi R.T. (2023) Tsyfrovi Instrumenti dlia organsatzatsii effektivnoyi komunikatsii osvitnioho protsesu [Digital instruments for the organization of effective communication in the educational process]. *Tavriiskii naukovyi visnyk. Seriya: Tekhnichni nauky –*





Tavriiski Scientific Bulletin. Series: Technical sciences. № 5. P. 15-22. doi:10.32782/tnv-tech.2023.5.2 [in Ukrainian].

7. Kozubai, I. (2023) Kompleksnii analiz vplivu shtuchnogo intelektu na викладання та вивчення іноземних мов [A comprehensive analysis of the impact of artificial intelligence on the teaching and learning of foreign languages]. *Aktualni pytannia hgumanitarnikh nauk – Current issues in the humanities.* № 1(63). P. 210-214. Retrieved from <https://doi.org/10.24919/2308-4863/63-1-32> [in Ukrainian]

Література:

1.Lomb, K. Harmony of Babel. Profiles of famous polyglots of Europe. http://www.tesl-ej.org/pdf/ej66/TESL-EJ_HarmonyOfBabel.pdf

2.Рудешко Є., Іваненко Г. Іншомовна комунікативна компетентність студентів як передумова їх професійного розвитку. *Міжнародний досвід у викладанні іноземних мов: тези доповідей.* 2015. С. 48-50.

3.Смірнова Л. Інтегрований підхід як необхідна складова організації процесу іншомовної освіти на немовних факультетах. *Наукові записки. Випуск 128. Серія “Філологічні науки (мовознавство)”.* Кіровоград, 2014. С. 490-493.

4.Хайдарі Н.І., Юхновець Н.П., Сабітова А.П. Штучний інтелект в системі іншомовної підготовки студентів закладів вищої освіти. *Іноваційна педагогіка: науковий журнал.* Вип.80. Т.2. 2025, С.150-151. http://www.innovpedagogy.od.ua/archives/2025/80/part_2/80-2_2025.pdf

5.Брутман А., Наумчук Т. Штучний інтелект на заняттях іноземної мови за професійним спрямуванням у закладах вищої освіти. *Сучасні дослідження з іноземної філології.* 2023. 1 (23). С. 211-218. <https://doi.org/10.32782/2617-3921.2023.23.211-218>

6.Вдовичин Т.Я., Білий Р.Т. Цифрові інструменти для організації ефективної комунікації освітнього процесу. *Таврійський науковий вісник. Серія: Технічні науки.* 2023. № 5. С. 15-22. <https://doi.org/10.32782/tnv-tech.2023.5.2>

7.Козубай І. Комплексний аналіз впливу штучного інтелекту на викладання та вивчення іноземних мов. *Актуальні питання гуманітарних наук.* 2023. № 1(63). С. 210. <https://doi.org/10.24919/2308-4863/63-1-32>

