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DIGITAL ENVIRONMENTS AND THEIR EFFECT ON WRITTEN ENGLISH PROFICIENCY IN HIGHER EDUCATION INSTITUTIONS IN UKRAINE

The article discusses the current issue of the impact of digital environments on the formation of written English language competence among higher education students in Ukraine. Given the rapid development of information and communication technologies and their integration into the educational process, particular attention is paid to the use of digital tools, platforms, and resources that provide new opportunities for enhancing academic writing skills in English. The main types of digital environments are analyzed, including distance learning systems (Moodle, Google Classroom), collaborative work services (Google Docs, Padlet), adaptive language learning platforms (Grammarly, Quillbot, Write&Improve by Cambridge), and other innovative tools that contribute to the development of students' independent work, critical thinking, and reflection on their own texts.

The work also analyzes key pedagogical conditions under which digital environments most effectively influence the development of written competence. Such conditions include the teacher's digital competence, the motivational orientation of students, the combination of individual and group work, the possibility of formative assessment, and the contextualization of learning content. It is noted that digital environments contribute not only to the development of writing skills but also to critical thinking, self-assessment, and self-correction abilities, which are important components of professional foreign language training.

The conclusion is made that digital environments, when used properly and purposefully, can significantly enhance the effectiveness of developing written English language competence in students, contributing to the development of their academic mobility, competitiveness in the international labor market, and readiness for intercultural communication in the digital space.

Key words: *digital environments, written communication, English language proficiency, writing skills development, language learning technologies, e-learning, digital literacy, online education.*

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ЦИФРОВІ СЕРЕДОВИЩА ТА ЇХ ВПЛИВ НА ФОРМУВАННЯ ПИСЬМОВОЇ АНГЛОМОВНОЇ КОМПЕТЕНТНОСТІ У ЗАКЛАДАХ ВИЩОЇ ОСВІТИ УКРАЇНИ

У статті розглянуто актуальне питання впливу цифрових середовищ на формування письмової англomовної компетентності здобувачів вищої освіти в Україні. З огляду на стрімкий розвиток інформаційно-комунікаційних технологій та їх інтеграцію в освітній процес, особливу увагу приділено використанню цифрових інструментів, платформ та ресурсів, які забезпечують нові можливості для вдосконалення навичок академічного письма англійською мовою. Проаналізовано основні типи цифрових середовищ, зокрема системи дистанційного навчання (Moodle, Google Classroom), сервіси для спільної роботи (Google Docs, Padlet), адаптивні платформи для мовного навчання (Grammarly, Quillbot, Write&Improve від Cambridge) та інші інноваційні інструменти, що сприяють розвитку самостійної діяльності студентів, формуванню критичного мислення й рефлексії над власними текстами.

Також у роботі проаналізовано ключові педагогічні умови, за яких цифрові середовища найбільш ефективно впливають на розвиток письмової компетентності. До таких умов віднесено наявність у викладача цифрової компетентності, мотиваційної спрямованості студентів, поєднання індивідуальної та групової роботи, можливість формування оцінювання, а також контекстуалізацію навчального контенту. Зазначено, що цифрові середовища сприяють розвитку не лише письмових навичок, а й критичного мислення, уміння здійснювати самооцінювання та самокорекцію, що є важливими складовими професійної іншомовної підготовки.

Зроблено висновок, що цифрові середовища, за умови їх грамотного й цілеспрямованого використання, здатні значно підвищити ефективність формування письмової англomовної компетентності у студентів, сприяючи розвитку їх академічної мобільності, конкурентоспроможності на міжнародному ринку праці та готовності до міжкультурної комунікації в цифровому просторі.

***Ключові слова:** цифрове середовище, письмове спілкування, володіння англійською мовою, розвиток навичок письма, технології вивчення мови, електронне навчання, цифрова грамотність, онлайн-освіта.*

Introduction. In the context of the rapid development of digital technologies and the global digitalization of the educational environment, the importance of effectively mastering written communication in English is increasing, as it serves as a key tool for academic, professional, and intercultural interaction. Modern digital platforms and resources (such as automatic grammar checkers, educational applications, cloud-based editors, and AI assistants) are radically transforming the processes of teaching and acquiring writing skills, offering new opportunities for personalized learning, prompt feedback, and enhanced student motivation.

However, along with the advantages of digitalization, new challenges are emerging as well: the for-

mation of dependence on digital prompts, a decline in critical thinking during text construction, and a superficial understanding of grammatical and lexical structures. Therefore, there is a growing need for scientific analysis of the impact of digital technologies on the development of academic writing skills, which underlines the scientific and practical relevance of the chosen topic.

The aim of the article is to identify the impact of digitalization of the educational process on the formation and development of written communication skills in English among students of philological specialties. To achieve this goal, the following tasks are proposed: to analyze theoretical approaches to the concept of written communication in the context of teaching English;

to characterize key digital tools used in teaching written English; to investigate the peculiarities of students' use of digital platforms in the process of completing written assignments; to identify the positive and negative aspects of the influence of digital technologies on the quality of written speech; to develop recommendations for the effective use of digital tools for the development of academic writing.

The object of the research is the process of forming written communicative competence in English in the context of the digitalization of education.

The subject of the research is the digital tools and technologies used in teaching written communication, as well as their impact on the quality and characteristics of written communication among philology students.

Research analysis. Digital environments include platforms, applications, and services designed to facilitate learning, communication, and content creation. Their pedagogical potential lies in: increasing learner autonomy, enabling formative assessment, encouraging collaboration, and providing access to authentic language input. According to European language education frameworks, digital literacy is essential for modern language learning (Council of Europe, 2020).

Key findings from studies and practical observations indicate that digital environments: improve grammatical accuracy and vocabulary use due to immediate feedback (Hockly, 2018); encourage process writing through multiple drafts and revisions (Hyland, 2019); support self-regulated learning and reflection (Kuksa & Vasylieva, 2021); enhance student motivation and engagement through gamification and interactivity.

The article by O. V. Dorosh (2022) examines the implementation of digital educational technologies in the training of specialists in the humanities, in particular, the possibilities of using online platforms, multimedia resources and interactive tools in the educational process are considered. The author emphasizes that the digitalization of education contributes to increasing student motivation, developing critical thinking and forming key professional competencies in the field of humanities.

L. V. Yatsenko (Yatsenko, 2020), in the article "The Impact of Information and Communication Technologies on the Development of Foreign Language Communicative Competence of Students" explores the role of modern digital tools in shaping students' ability to communicate effectively in a foreign language. The author analyzes how the introduction of information and communication technologies (ICT) into the educational process contributes to the development of speech skills, in particular through the use of interactive platforms, multimedia resources, and

online communications. Particular attention is paid to pedagogical conditions that ensure the effective use of ICT, such as teacher training, student motivation, and the integration of technologies into the content of curricula.

Digital environments, when implemented purposefully and pedagogically, significantly enhance written English proficiency among Ukrainian students. Their integration fosters not only language development but also essential 21st-century skills such as critical thinking, self-assessment, and intercultural communication. Future research should focus on longitudinal studies and the development of national digital frameworks for language education.

Results and discussion. Modern digital tools play a crucial role in the process of teaching written communication in English, providing students with a wide range of opportunities to develop and enhance their writing skills. Let's take a look at some of the most popular and widely used platforms and services.

Grammarly is one of the most popular services for automatic grammar, spelling, punctuation, and style checks. Grammarly analyzes written text and suggests corrections, helping users improve the accuracy and readability of their writing.

QuillBot is a service that helps improve text by paraphrasing phrases and sentences, creating more diverse and expressive alternatives. It is useful for text generation as well as for enhancing the stylistic quality of writing.

ChatGPT – an AI-based platform that can not only generate text but also offer corrections, assist with writing essays and reports, and interact with users to clarify ideas and create logical texts.

Google Docs with Comments is a platform for collaborative editing and document creation, which allows multiple users to work on a text simultaneously, leave comments, and make corrections in real time.

Moodle is an educational platform for creating online courses, where instructors can provide assignments that students complete and submit online. Moodle also supports feedback from instructors, which is important for improving students' writing skills.

Digital platforms offer a wide range of features that can significantly enhance the effectiveness of teaching written communication: automatic checking (e.g. tools like Grammarly and QuillBot offer instant corrections and suggestions for improving text, helping students fix grammatical and stylistic errors without the need for teacher intervention), collaborative editing (platforms like Google Docs and Moodle allow multiple users to work on a document simultaneously, fostering teamwork skills and providing opportunities for real-time feedback), text generation (the use of

artificial intelligence, as seen with ChatGPT, enables the generation of texts on assigned topics, helping students create drafts and explore ideas for further development.

Digital tools offer a number of clear advantages:

- Students can instantly see corrections and receive suggestions, which encourages active engagement with the text and a deeper understanding of the material.

- The use of online services allows each student to work at their own pace, helping to tailor the learning process to individual needs. For example, Grammarly and QuillBot can analyze text based on the user's level.

- Digital platforms like Google Docs allow instructors to provide real-time feedback, which accelerates the learning process and improves students' writing skills.

Despite all the advantages, the use of digital technologies in teaching written communication also has its limitations:

- Frequent use of automatic checks and text generators can lead students to rely on these tools, reducing their ability to independently analyze and edit their texts.

- Platforms like Grammarly can make students dependent on automatic error correction, which decreases their ability to identify and fix grammatical and stylistic mistakes on their own.

- Automatic text generation and paraphrasing (such as with QuillBot) can limit students' creative approach to writing, turning the process into a more mechanical task rather than an analytical one.

Digital tools such as Grammarly, Google Docs, and QuillBot are actively being integrated into the educational process to improve students' writing practice. In one practical English course at the university, the Google Docs platform was used for collaborative editing and real-time text discussion. Instructors and students could comment on and correct each other's work, fostering more active student engagement in the learning process.

Through research conducted with students at different levels of study (beginner, intermediate, advanced), it was found that students who used automatic correctors showed better results in terms of grammatical accuracy and text structure. However, there was also a noticeable lack of deep text analysis and difficulty with independent editing.

To provide a clearer picture, several examples of student writing assignments were selected, comparing work done before and after the use of digital platforms. Students wrote essays on the topic "Environmental Problems in Modern Megacities." The texts were characterized by a limited vocabulary, numerous grammatical errors, and a lack of coherence and logical structure. Students did not use correctors and hardly edited their work before submission. After

using tools like Grammarly and QuillBot, the essays became more structured, with diverse vocabulary and grammar. Interactive feedback and automatic corrections helped reduce the number of errors and improved style. However, despite these improvements, the creative content of the texts noticeably decreased, as students often relied on prompts from digital platforms. During interviews with instructors and students, the following comments were gathered:

- instructors noted that the use of digital platforms significantly accelerated the process of correcting students' work and allowed students to quickly master basic grammar and stylistic rules. However, they expressed concerns that students might become overly dependent on these tools, which could lead to a decrease in their independence when editing texts;

- students gave positive feedback about the ability to instantly correct mistakes, as well as the collaborative real-time editing of texts. They mentioned that this helped them better understand their weaknesses and improve the quality of their written work faster. At the same time, students admitted that they sometimes relied too heavily on automatic corrections, which limited their ability to independently analyze and edit their work.

One of the most notable changes after the introduction of digital platforms was the improvement in students' grammatical accuracy. The use of tools such as Grammarly and Google Docs allowed students to minimize the number of grammatical and spelling errors. Many students began to pay more attention to their choice of grammatical structures, which boosted their confidence in the correctness of their written texts.

Regarding lexical diversity, the results were mixed. While students started using more varied words and phrases thanks to platforms like QuillBot, there was a trend toward using more standard and less creative expressions. Automated tools tend to lead students toward formulaic writing, as they often offer ready-made, neutral solutions for paraphrasing, which limits the creative aspect of writing.

The structure of texts also improved: students became more consistent in following the logic of their presentation, which was made possible by the ability to automatically correct text, as well as through feedback and comments from instructors and peers. However, in some cases, the structure of texts became more uniform, as students relied on the templates and recommendations provided by the platforms.

After the introduction of ICT, students' attitudes toward the writing process changed. It is important to note that students became more motivated to complete written assignments due to the interactivity and instant feedback provided by digital tools. This cre-

ated a sense of achievement and progress, which was especially important for beginner and intermediate students. They received corrections and recommendations immediately after writing the text, which accelerated the learning process and helped avoid repeating the same mistakes.

On the other hand, there was a decrease in independence in the writing process. Students became less reliant on their own efforts when editing texts, due to their excessive dependence on autocorrect tools. As a result, they began to perceive the writing process as less labor-intensive, but also less meaningful, as the main focus shifted to eliminating obvious errors rather than deeply understanding the text.

Despite significant advantages, the use of digital platforms also revealed several problems related to the development of writing skills:

- * Students began to rely on automatic correctors, and as a result, they lost the skills to independently edit and improve texts without external help. This makes it difficult to develop critical thinking and the ability to analyze their mistakes in depth.

- * Students often used the paraphrasing and correction suggestions provided by the platforms without further reflection, leading to a superficiality in their written work. Instead of developing creative thinking, students applied ready-made solutions without delving into the structure and content of the text.

- * Some students became overly dependent on digital tools, which affected their confidence in their own abilities. Their ability to independently find and correct errors without using these platforms significantly decreased.

The introduction of digital technologies into the process of teaching written communication in English has both positive and negative consequences. On the one hand, ICT improved grammatical accuracy and structure in written work, enhanced student motivation, and provided quick feedback tools. On the other hand, there is a risk of dependence on automatic correctors and a loss of manual editing skills, which could affect the quality and creativity of written texts in the long run.

Conclusions. The introduction of digital tools, such as Grammarly, Google Docs, and QuillBot, has led to notable improvements in students' grammatical and stylistic accuracy in written English. These platforms enable students to identify and correct errors in real-time, resulting in more polished, coherent, and well-structured written texts. Digital environments provide instant feedback, which encourages active engagement from students. This has proven to be particularly beneficial for students at beginner and intermediate levels, as they can track their progress and

immediately address mistakes. The interactive nature of these tools enhances motivation and gives students a sense of achievement in their writing development. Platforms like Google Docs facilitate collaborative writing, allowing students to work together, provide feedback to peers, and improve their collective writing skills. This peer collaboration encourages critical thinking, enhances the learning experience, and fosters a sense of community in the learning environment.

One of the challenges identified is the increasing dependency on digital tools for error correction. While these tools are useful in improving written work, they can hinder the development of essential self-editing and proofreading skills. Students may begin to rely too heavily on the platforms, leading to reduced independence in writing tasks and a lack of deep engagement with the content. The use of automated correction and text generation tools, such as QuillBot, can reduce students' creativity in writing. By offering standardized solutions and suggestions, these platforms may encourage formulaic approaches to writing, which can limit students' ability to express their ideas in unique and original ways. Digital tools have helped students improve the organization and logical flow of their written texts. With the ability to check and revise text structure, students are more likely to produce coherent, well-organized writing. However, there is a risk that students may follow the templates provided by these tools too rigidly, leading to less variation in their writing style.

While digital tools offer significant benefits in enhancing grammatical accuracy and writing structure, their overuse could lead to a reduction in critical thinking and creativity. It is important to strike a balance between using these tools as aids and fostering students' ability to work independently. Educators should encourage students to use digital tools to supplement their learning, rather than replacing traditional methods of writing development. The long-term impact of digital tools on written English proficiency in Ukraine's higher education institutions is promising, provided they are used appropriately. Digital tools can offer substantial support in writing development, but their effectiveness depends on ensuring that students retain essential writing skills such as manual editing, critical analysis, and creativity.

In conclusion, while digital environments play a crucial role in enhancing written English proficiency, it is essential to carefully manage their use to avoid dependence. A well-balanced approach that encourages both the use of digital tools and the development of independent writing skills is key to producing proficient and creative English writers in higher education.

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