MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
THE NATIONAL TECHNICAL UNIVERSITY OF UKRAINE
"IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE"
FACULTY OF LINGUISTICS

INTERNATIONAL SCIENTIFIC CONFERENCE

DIGITAL INCLUSION IN ENGLISH LANGUAGE TEACHING



Kyiv, Ukraine

HEAD OF THE EDITORIAL BOARD:

Zoia Kornieva Dr. Sc., Professor,

Dean of the Faculty of Linguistics, Igor Sikorsky Kyiv Polytechnic Institute

THE EDITORIAL BOARD:

Iryna Simkova Dr. Sc., Professor,

Head of the Department of English for Humanities,

Igor Sikorsky Kyiv Polytechnic Institute

Yuiana. Lavrysh Dr. Sc., Professor

Head of the Department of English for Egineering №2,

Igor Sikorsky Kyiv Polytechnic Institute

Yuliia Kornytska Ph. D., Associate Professor,

Department of English for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Iryna Kozubska Ph. D., Associate Professor,

Department of English for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Oksana Synekop Dr. Sc., Associate Professor,

Department of English for Egineering №2, Igor Sikorsky Kyiv Polytechnic Institute

Artur Gudmanian Dr. Sc., Professor,

Head of the Department of English for Egineering №1,

Igor Sikorsky Kyiv Polytechnic Institute

Olha Pavlenko Ph. D., English for Egineering №1,

Igor Sikorsky Kyiv Polytechnic Institute

Kateryna Tuliakova Ph. D., Associate Professor,

Department of English for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Valentyna Lukianenko Ph. D., Associate Professor,

Department of English Language for Egineering №2,

Igor Sikorsky Kyiv Polytechnic Institute

Digital Inclusion in English Language Teaching: Proceedings of the International Scientific Conference, 14 June 2024. K., 2024. 66 p.

The edition features the proceedings of the International Scientific Conference "Digital Inclusion in English Language Teaching", held on 14 June 2024. This collection brings together contributions from scholars and practitioners, offering insightful perspectives and practical knowledge for scientists, educators, and students in higher education institutions.

Responsibility for the accuracy of facts, quotations, proper names and other information are on the authors of publications

ASSESSMENT AND EVALUTAION IN E-LEARNING

Natalia Biriukova

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Nowadays the internet has provided us with a preposterous number of opportunities to stay connected, get hold of modern and timely information and find resources for anything from finding a good job to polishing your English with immense amounts of online grammar exercises, reading, writing and listening activities, and speaking games. Additionally, regardless of the fact that the internet demonstrates itself as a great English language learning tool numerous students, educators, scientists still need proof of efficacy.

Online learning is broadly extending and is trying to get the place of conventional techniques of teaching and learning. There are different ways in which teaching and learning can be made more efficient especially in program delivery through the use of the technology. Dr.Catherine Murungi (a lecturer at Kenyatta University) writes that E-learning refers to the kind of learning conducted via electronic media and devices such as computers, mobile phones, iPads etc., to deliver part, or the whole course through in-school or full distance learning [4, p.327]. So, E-learning can happen in or out of classroom or the learning context.

E-learning can display in different shapes, such as online courses, webinars, podcasts, recordings, and virtual reality. It has gotten to be progressively well known resources. It allows learners to access science courses and resources anytime, at their own pace, anywhere in the world. This means students can choose from a variety of science topics and levels, depending on their interests and goals.

E-learning improves the quality and effectiveness of science education by providing interactive and engaging learning experiences. This also makes it possible to offer personalized and adaptive learning paths according to learners' individual needs and preferences. For example, e-learning can use artificial intelligence to analyze learner performance and feedback to provide customized content and support. E-learning can also use gamification to increase learner motivation and improve knowledge retention and application.

E-learning cultivates collaboration and communication among science learners and specialists by making online communities and systems. E-learning can empower learners to connected with their peers, educates, tutors, or part models through different online instruments, E-learning can moreover ease cross-cultural and intrigue trade of thoughts and points of view among science learners and specialists from assorted foundations and areas.

E-learning supports long lasting learning and career advancement for science experts by giving them with openings to overhaul their aptitudes and information, grow their skylines, and development their careers. E-learning can offer assistance science experts keep up with the most recent patterns and advancements in their areas, as well as purchase modern competencies and qualifications. E-learning can too offer assistance science experts investigate modern career ways or move to particular parts or divisions.

E-learning increases the mindfulness and appreciation of science among the open by making science more open, pertinent, and fun. E-learning can offer assistance the open learn more almost the ponders of science, as well as the challenges and openings that science faces within the cutting edge world. E-learning can also inspire the open to induce included in science exercises or activities that can make a positive affect on society and the environment [5].

Though English as a second or foreign language is vastly thought all over the world, the internet as a means of English language learning is not widely at hand. An upcoming publication from the World Bank, the World Development Report for 2016, will explore the Internet's "impact on economic growth, on social and economic opportunity, and on the efficiency of public service delivery" [6]. Education is both a basic human right and a core element of sustainable development [3]. Education allows people to build more successful lives and societies to reach economic prosperity and social benefits. Access to the Internet is basic to achieving this version for the future. The Internet has cool potential to improve the quality of education in many ways, which is one of the columns of maintainable development.

Fortunately, today students are interested in exploring opportunities and discovering new ways in which they can use the Internet to upgrade education outcomes. Teachers use online materials to prepare lessons, and students to extend their range of learning. Interactive teaching methods, supported by the Internet, allow teachers to give more attention to individual students' demands and support shared learning.

The Internet has led to important innovations in educational content. Open educational resources (OER) and Massive Online Open Courses (MOOCs) bypass intellectual property constraints by making course materials from one country available to students in another [1]. But apart from using some great internet sites for specifically practicing your English grammar, reading, etc. there are some other ways you can use the internet to study English.

Listening to and reading news articles is a good way to practice because the language of news channels is clear and direct. Also, the content is always fresh and you will never get bored by reading or listening to some information. No matter what your interests, the news plays a big role in our everyday routine. Anyway learning English through the news, with options for reading articles online, listening to news podcasts or watching news videos on an app – all on your own time and wherever you like is the great benefit.

These days each person can explore some great news resources for English learners. Here is a list of sources which users can read:

E-News is one of the best news sites built specifically for an English-learner audience. Articles also come with audio files, with the speed quickening gradually from elementary to advanced [2].

Voice of America English News (VOA) is VOA's multimedia source of news and information for millions of English learners worldwide with different levels [2].

The New York Times' Times Minute: Short Videos of News They don't take long to watch, as most videos are within two minutes. Basically, they're short and interesting – ideal for improving listening skills [2].

BBC World Service's Global News Podcast: World News on the Go This daily podcast from BBC World Service is ideal for improving your listening skills while commuting or doing chores around the house [2].

Also there are so many interesting bloggers today. Everyone can find Google for bloggers on any topic and start following them. For example, if you are into music, then try music bloggers! But, always remember that just because someone blogs in English a lot, it does not mean they are the mastery on English writing and grammar. It may include slang and swear words. A more formal way to ensure you are following blogs that are probably written by someone who is professional in their writing or has some background, is following blogs of many of your favorite occupations.

Instagram is also the perfect platform for learning. Instagram makes this easier for you through their saving post schedule. Users can follow different English-speaking accounts. For example, if you like baking, follow bakers who post in English. Of course, in order to practice your writing skills, you need to write. Again, a platform like Instagram permits to do this easily and without having to write essays. Users needn't always be focused on grammar materials and new phrasal verbs. It happens naturally through massive information. Each person can read, watch, laugh, enjoy, and make an Instagram experience as much fun as possible.

As can be observed, Internet access gives great opportunities for education authoritative to improve the quality of education for individual learners and contribute to national economic and social welfare. The internet is full of sites specifically for practicing and learning English. Everyone can also use internet based resources that are not specifically directed at improving the English language in a more interesting way.

References:

Critical Understanding of ICT Commonwealth of Learning and KSOU, 2016.

- Fluent U English Language and Culture Blog. Retrieved from https://www.fluentu.com/blog/english/learn-english-news-3/
- International Covenant on Economic, Social and Cultural Rights. Retrieved from http://www.ohchr.org/EN/ProfessionalInteres t/Pages/CESCR.aspx.
- Jared Keengwe Handbook of Research on Educational Technology Integration and Ative Learning University of North Dacota, USA 2015, 435 pages.
- Transforming the Scientific Landscape: The Impact of E-Learning on Science Careers, September 2023 Retrieved from https://www.linkedin.com/pulse/transforming-scientific-landscape-impact-e-learning-science-edesa
- World Development Report 2016: Digital Dividends. Retrieved from http://www.worldbank.org/en/publication/wdr2016

ROLE OF DIGITAL TECHNOLOGIES FOR INCLUSION, ACCESSIBILITY AND EQUITY IN HIGHER EDUCATION

Oleksandra Bondarenko

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Polina Haieva

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Today, inclusive design of education based on the implementation of digital technologies is important. Digital technologies are being used to engage diverse groups of students in the educational process, including increasing the accessibility of educational content, enhancing personalization, and providing distance learning opportunities. At the same time digital equality requires all students to have both access to digital technologies and certain digital skills to participate fully in society.

However, digital inequality can undermine digital equity and inclusion, as well as equity and inclusion in education in general, especially in relation to access to digital tools and differences in digital skill levels. To use digital tools to promote equitable and inclusive outcomes, education systems must focus on ensuring equity in access to digital resources and promoting digital skills, as well as the use of digital technologies designed with inclusion in mind for different groups of students.

Scientific findings (Andreasson, 2019) show how the strategic implementation of digital technologies in education can make it more equitable and inclusive for diverse groups of students in new ways. Digital tools are supposed to be used to empower and engage students from diverse backgrounds while creating a sense of belonging and supporting mental health. In addition, digital tools, especially those designed and implemented with inclusion in mind, can more precisely target and meet academic and special education needs. Certain groups of students who often face additional challenges, such as students with an immigrant background, students from different ethnic groups, national minorities, can benefit from the inclusive use of digital technologies. In addition, students with special educational needs, students of different gender, etc. can be supported in learning through the effective inclusion of digital tools in the educational process (Cerna et al., 2021). Differences in socioeconomic status and geographic differences also affect access, use, and outcomes for different groups of students. Digital technologies can offer many advantages, diversifying not only what is learned, but also where, when and how it is learned.

Digital inclusion in education requires minimizing the digital divide, thereby increasing access and improving the quality of learning for students from diverse groups, ensuring equitable education (European Commission, & Directorate-General for Education, Youth, Sport and Culture, 2021). Digital inclusion is a multidimensional concept as it encompasses factors such as access, infrastructure, use and specific learning outcomes, as well as focusing on promoting digital literacy among students and teachers (Kim, Yi, & Hong, 2021; OECD, 2021; Park, 2017).

Digital engagement should also be based on culturally relative pedagogy, enhancing multiculturalism and supporting minority cultures (Ladson-Billings, 2002). When developing digital resources that are culturally relevant, it is important that teaching methods are tailored to the cultural context of the target group (Mcloughlin, 2000). Since the turn of the century, scholars have noted that culturally sensitive design is important, and that certain features can be incorporated into the design process to promote equity among diverse groups of students. Henderson's (1996) multicultural design model of inclusive learning suggests that learning resources should be designed to provide variability and flexibility for students, and to be able to interact with materials that reflect the multicultural realities present in society, include different cultural ways of learning and promote equity in learning outcomes. McLoughlin (2000) suggests adding to this design model of inclusive education mandatory cultural support (i.e., the inclusion of components such as values, learning styles and cognitive characteristics of students of the target group).

When developing the educational process with inclusion in mind, various digital tools contribute to its differentiation and individualization, allowing teachers to adapt the content of the discipline and the way it is presented in accordance with the needs and experience of students (Heemskerk et al., 2005). Digital tools such as assistive technology for assessment is being exploited nowadays in some countries (e.g., the USA, the UK) to accommodate students with special educational needs and to make better use of assessment with personalized guidance and support. For instance, in Scotland (United Kingdom), some students use computers with speech synthesis during national examinations. Using computers in the exams, all students are able to take part more equally as their communication needs are met and this can help them realize their potential.

In general, digital tools can accommodate diversity by enabling choice, personalization, and increased access to online educational resources for students from different groups. Well-designed tools can meet the diverse needs of students. Thinking about how digital tools can be used in the classroom to support different groups of students can lead to a more inclusive digital education.

References:

Andreasson, K. (2019). Digital Skills in Europe: Research and Policy. Routledge.

- Cerna, L., Brussino, O., Mezzanotte, C., Rutigliano, A., Santiago, P., Borgonovi, F., & Guthrie, C. (2021). *Promoting inclusive education for diverse societies: A conceptual framework*. OECD Education Working Papers, No. 260. Paris: OECD Publishing. https://doi.org/10.1787/94ab68c6-en
- European Commission, Directorate-General for Education, Youth, Sport and Culture. (2021). *Enhancing learning through digital tools and practices: how digital technology in compulsory education can help promote inclusion: final report.* Publications Office. Available at https://data.europa.eu/doi/10.2766/365846
- Heemskerk, I., Brink, A., Volman, M. L. L., & Dam, T. G. (2005). Inclusiveness and ICT in education: a focus on gender, ethnicity and social class. *Journal of Computer Assisted Learning*, 21(1), 1-16. https://doi.org/10.1111/j.1365-2729.2005.00106.x
- Henderson, L. (1996). Instructional design of interactive multimedia: A cultural critique. *Educational Technology Research and Development*, 44(4), 85-104. https://doi.org/10.1007/bf02299823

- Kim, H., Yi, P., & Hong, J. (2021). Are schools digitally inclusive for all? Profiles of school digital inclusion using PISA 2018. *Computers & Education*, 170, 104226. https://doi.org/10.1016/j.compedu.2021.104226
- Ladson-Billings, G. (2002). But that's just good teaching! the case for culturally relevant pedagogy. In S. J. Denbo & L. M. Beaulieu (Eds.), *Improving schools for African American students: A reader for educational leaders* (pp. 95-102). Charles C Thomas Publisher, Ltd.
- Mcloughlin, C. (2000). Cultural Maintenance, Ownership, and Multiple Perspectives: features of Webbased delivery to promote equity. *Journal of Educational Media*, 25(3), 229-241.
- OECD. (2021). Adapting Curriculum to Bridge Equity Gaps: Towards an Inclusive Curriculum, OECD Publishing. https://doi.org/10.1787/6b49e118-en
- Park, S. (2017). Digital inequalities in rural Australia: A double jeopardy of remoteness and social exclusion. *Journal of Rural Studies*, 54, 399-407. https://doi.org/10.1016/j.jrurstud.2015.12.018

THE EVOLVING ROLE OF DIGITAL PLATFORMS IN ENGLISH LANGUAGE EDUCATION FOR LAW STUDENTS: ADDRESSING MODERN CHALLENGES

Inna Borkovska

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Svitlana Volkova

Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

The requirements for graduates of higher education institutions are constantly evolving, and foreign language proficiency is becoming one of the most critical aspects of a successful career. In this regard, it is necessary to revise the level of language training of students by introducing new methods into the educational process. Digitalisation of foreign language teaching involves the use of a wide range of electronic resources to develop language skills. Information technology plays an essential role in this process, as it is the basis of globalisation and affects education systems.

Nowadays, in addition to proficiency in a foreign language as a means of international communication, a law graduate requires skills in using digital tools and technologies for both general and professional purposes. This includes technologies that aid in maintaining or enhancing English language proficiency. The development of digital competences in a graduate, defined as the ability to effectively perform tasks in a digital environment (Zahorodnia & Volokh, 2023, p. 342), will enable students to fulfill basic functional duties successfully and serve as a key factor in improving employability.

Researchers have proposed a distribution of digital resources that can be utilized both within and outside foreign language classes:

application programs;

educational resources on the Internet;

electronic dictionaries of various types;

electronic communication tools in synchronous and asynchronous modes (chats, messengers, video conferencing) (Zahorodnia & Volokh, 2023, p. 342).

It is also worth noting the tasks that are achieved through the use of such digital resources in the educational process:

increasing the intensity of the learning process, which makes the lesson more interesting; formation of sustainable motivation for cognitive activity;

development of skills and abilities to ensure information and digital competence;

teaching students to work independently with digital resources (Chernenko, 2019, p. 197).

During their first and second years at Igor Sikorsky Kyiv Polytechnic Institute, students take the course "Foreign Language." However, we propose to encourage students to use

additional online resources, including "Englishonline" (https://englishonline.britishcouncil.org/what-will-you-learn/), created by the British Council. This website offers a dynamic and interactive learning interface, along with online exercises that students can complete at their convenience. Students have the opportunity to improve their speaking skills and learn about various topics ranging from business to social aspects in an international environment. One advantage is that students can choose a monthly plan and enjoy online activities to improve their language skills at their own convenience. Another advantage is the opportunity for students to work in small groups with expert teachers in online classes.

Learning useful vocabulary for future use at work, getting sample texts for all kinds of writing tasks and then revising them, improving your listening and speaking skills through interesting, authentic audio and video – all of these are available on the platform "Learn English online and improve your skills through our high-quality courses and resources" (http://learnenglish.britishcouncil.org). This platform offers a vast collection of free materials for English language learners. Registered users have the ability to post comments, engage in communication with other participants, ask questions, and download learning materials.

In addition, students can not only expand their vocabulary, complete grammar exercises and read detailed descriptions of grammatical structures, but also play various games and download free apps to their mobile phones or smartphones. As for the future, students can listen to podcasts and read articles on business and professional topics, and watch a series of videos on how to pass job interviews. So, this site is extremely useful and can be used not only by learners but also by teachers. You will be able to improve your knowledge and learn English easily and with pleasure (Mozaikina, 2017, p. 56).

Among the convenient services, we should mention the interesting LingQ resource with a large number of online materials. There is a mobile app that allows you to read, translate and listen to various texts in English. Although there are no tests or memory exercises, students retain the knowledge they have gained more deeply than when memorising vocabulary lists. For example, unfamiliar words selected by the user will be highlighted in a certain colour when they are repeatedly encountered in a new text, depending on the difficulty to remember. Students can easily import content from various sources, including news, Netflix, and YouTube. This makes the learning process more engaging, as students can study materials that they are really interested in.

In the third year of the studies at Igor Sikorsky Kyiv Polytechnic Institute, students begin studying "Foreign Language for Professional Purposes" course, which is aimed at developing oral and written communication skills in a professional environment. In addition to the main programme, law students are offered the use of a digital platform with "Legal English course". This course will help them to acquire the necessary skills for a successful start in their career, as well as teach them practical aspects that are not taught at university. Here, they will be able to learn basic legal terms in English, as well as the specifics of writing emails, CVs and cover letters.

Moreover, the course provides interesting information on the importance of legal translation for lawyers, as well as learning how to draft such important elements as Force majeure clauses and other clauses included in a contract. Students will also gain basic knowledge of Small-talk and its importance for successful business meetings, as well as the rules of communication with English-speaking professionals. Further study of the topic

involves passing an interview in English, which is an important part of professional training. Also, students will expand their knowledge of Patent law (http://surl.li/tlbqx).

As a conclusion, online resources can be a means of learning, revising the lexical and grammatical material, a source of additional information. Law students have the opportunity not only to enhance their English language skills for professional use, but also to develop these skills through the use of digital platforms that provide access to relevant and engaging information throughout their studies.

- Chernenko, A.V. (2019). Tsyfrovi tekhnolohii u protsesi navchannia maibutnikh uchyteliv inozemnykh mov [Digital technologies in the process of training future teachers of foreign languages]. Zbirnyk naukovykh prats "Pedahohika ta psykholohiia [Collection of Scientific Papers "Pedagogy and Psychology]. 61, 193–200. [In Ukrainian].
- Mozaikina, I. O. (2017). Osobystisno oriientovani tekhnolohii navchannia inozemnykh mov [Personality-oriented teaching technologies of foreign languages] *Vinnytskii derzhavnyi pedahohichnyi universytet imeni Mykhaila Kotsiubinskoho [Vinnytsia State Pedagogical University named after Mykhailo Kotsiubynskyi]*. 61–63. [In Ukrainian].
- Zahorodnia, O., & Volokh, S. (2023). Tsyfrovizatsiia na zaniattiakh z inozemnoi movy u zakladakh vyshchoi osvity [Digitalization in foreign language classes in higher education institutions]. *Aktualni pytannia humanitarnykh nauk [Current Issues in Humanities]*, 59(1), 340-346. [In Ukrainian].

PROBLEMS IN IMPLEMENTING DIGITAL STRATEGIES IN ENGLISH LANGUAGE TEACHING

Iryna Boyko

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

In the last five years educational society has witnessed the full immersion into the digital world offering the members of that a great number of benefits. However, along with the advantages the educators had to face a lot of challenges. This abstract will try to look into the problem and find solutions to bring it under control.

First and foremost, the educators have faced a number of challenges with the main of those being a lack or absence of the internet facility. The students from less wealthy communities or remote places may experience less reliable internet connection which can limit their full participation in digital learning process.

The next problem includes the lack of important digital skills that are necessary to switch confidently between digital platforms, or use essential software, or other digital resources. However, recent studies show the decrease in the number of digitally illiterate users (Peters, 2007).

One of the most important challenges in implementing digital strategies into educational process is poor technological infrastructure. Institutions must provide their educators with necessary updated hardware, reliable high-quality broadband internet connection to ensure smooth uninterruptible learning process, though this problem is left for educators who struggle to provide themselves with essential technological base.

Next in the series of problems is lack of teacher training programs and technical support. Integrating digital tools for designing interactive digital lessons into the teaching practices is vital for educators in our modern digital world. Ongoing technical support could enhance the teacher's ability to share their knowledge and expertise with their students.

Solutions to the problems hindering digital inclusion into educational process may be providing both students and teachers with equal opportunities to access digital tools, platforms and resources. The measures can include community internet labs, different loan programs and subsidies for students as well as their teachers to ensure everybody is having full and equal access to devices and technologies (Robinson, & Reinhart, 2014).

The curriculum should include digital proficiency programs which will help both students and educators to immerse into the diversity of digital world with its immense number of resources helping to receive the necessary knowledge. Acquiring digital proficiency can improve learners' and teachers' confidence in using technologies, which will raise effectiveness of the whole educational process (Faisal, 2021).

Improving technical facilities would contribute the process of integrating digital inclusion into education. Attracting investors, governmental offices, fostering sponsorship could make a great contribution into digitalizing education. Developing ties with technological institutions can help initiate interest in growing professional skills and involve students and teachers in

creating cooperative partnership. It is a must to give educators opportunity to attend webinars, workshops and online conferences where they could share their knowledge and working digital practices.

Implementing digital strategies can pose obstacles. It is a challenging and demanding process. Providing both students and their teachers equal technical opportunities, giving them equitable access to the internet and its versatile digital world, encouraging and helping educators' professional development, involving technological institutions and other governmental and non-governmental organizations will certainly ensure sufficiently high level of expertise, proficiency and creativity in the academic environment.

- Faisal, F. (2021). Pedagogical approaches in online distant learning. IOER *International Multidisciplinary Research Journal. Proceeding of the BatStateU IOER 1st World Research Conference Across Disciplines (WRCAD)* 17 19 Sept., 2021. Retrived from: https://www.academia.edu/53476057/PEDAGOGICAL_APPROACHES_IN_ONLINE_DISTANT_LEARNING?sm=b
- Peters, L. (2007). Meeting the needs of the vulnerable learner: The role of the teacher in bridging the gap between informal and formal learning using digital technologies. In T. Willoughby & E. Wood (Eds.) *Children's learning in a digital world.* Hoboken, NJ: Wiley-Blackwell.
- Robinson, R. & Reinhart, J. (2014). *Digital Thinking and Mobile Teaching: Communicating, Collaborating, and Constructing in an Access Age.* Denmark: Bookboon (Eds).

EXPANDING CAPABILITIES OF KAHOOT! WITH THE HELP OF AI

Nataliia Chizhova

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Inna Antonenko

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

With the rapid development of AI in all areas of our lives, there are changes in approaches, methods and techniques for creating new content, analyzing data and searching for information. Significant changes are also taking place in the educational sphere, as students often use AI to perform tasks, do calculations, and write essays, claiming that in this way they significantly save their time, but at the same time they lose the opportunity to learn new material, miss self-improvement, and deprive themselves of the development of critical thinking skills. Therefore, the task of the teacher is to master the tools for working with AI, to discuss with students the advantages and disadvantages of its use, and most importantly - to select material and tasks that, by their form and content, will interest students and inspire them to execute the assignments without the use of AI.

According to a survey conducted by Forbes Advisor in October 2023 on the use of AI in educational activities, conducted among 500 practicing educators from around the U.S., 60 percent of respondents indicated that they use AI technologies to facilitate the training process. The most frequently used AI tools were: AI-powered educational games, adaptive learning platforms, automated grading and feedback systems. Among the biggest concerns of American colleagues, as well as Ukrainian teachers, is plagiarism while training at the university, which undermines both the learning process itself and its results. American teachers are also concerned that the widespread use of AI in education will reduce human interaction, which will negatively affect the emotional state of students, the ability to effectively communicate and establish interpersonal relationships (Artificial Intelligence In Education: Teachers' Opinions On AI In The Classroom, 2024).

The online learning format encourages English language teachers to widely use digital technologies that diversify the work in class, increase students' engagement and, at the same time, allow to conduct short tests with instant analysis of their results in the minimum time. There are many tools that perform these functions, but we will focus on the Kahoot! platform. Since the platform has existed for more than 10 years, it is constantly being improved, adding new functions and expanding the possibilities of both teachers and students. A Kahoot! mobile app was created allowing students to use it anytime and anywhere, choosing kahoots and playing asynchronously against other players or even against non-playable characters. Such kahoots teachers can use as the home assignments for students. Sometimes students may play games on difficult topics to better understand the material and improve their competence. (Wang & Tahir, 2020). Using quizzes, the teacher both checks the learned material and provides new ones, explaining it, or involving other students in giving explanations.

The platform's powerful learning resource is able to motivate students to create their own kahoots. For this, they need to learn the material well, prepare questions, and choose realistic, but not true, answers together with the correct ones (de Sousa, 2018). This task is a real challenge, but the students accept it and enjoy both the creation process and the result appreciated by their peers.

Currently new question types appeared to increase student engagement: drop pin (allows students to drop their answers on a graph, chart, or picture), word cloud (creates a snapshot of students' thoughts), open ended (assess or gather qualitative feedback from students), brainstorm (suggest, discuss and vote on ideas as a group).

To optimize the development of new kahoots AI is used on the platform, which greatly facilitates and simplifies the work of teachers, creating new materials in a matter of seconds. If previously a teacher could enter material manually or borrow colleague's ideas to create a new kahoot, now AI tools provide more opportunities. One of them is the automatic creation of quizzes on a certain topic, where the teacher writes only the topic, and the system creates several options for questions to choose from (slide, true-false, multiple choice, etc.), then the teacher chooses those questions that he considers appropriate and useful, saves them, edits, if necessary, and creates a kahoot. With the help of AI, you can create a quiz by simply uploading a pdf document (an article, text from a textbook) or a video to the system and get a ready-made test to check reading comprehension, vocabulary expansion and repetition of the studied topic. Of course, before giving the kahoot to students, it needs to be checked, because AI can make mistakes.

The Kahoot! platform provides a wide range of learning opportunities. In addition to pure quizzes, there is an opportunity to include slides with explanations, to present a new topic, and from time to time to check how well students understand the material, by asking test questions. AI automatically creates slides depending on the topic, or there is an option to transfer a presentation from Power Point and edit it later.

Students can react during polls using images, which give everyone the opportunity to show themselves and entertain others.

The use of AI elements will greatly simplify and diversify the teacher's work while saving his time. The Kahoot! platform is a powerful tool for teaching various disciplines and English in particular. Kahoot! is used at all stages of learning, such as the introduction of new material, revising and consolidating, checking and testing. Kahoot quizzes will be useful for exploratory learning, discussing the problem and finding a solution. With AI elements, Kahoot! simplifies the process of creating your own materials based on texts and videos. To get unlimited opportunities to use the platform, the teacher will have to issue a monthly subscription.

- Artificial Intelligence In Education: Teachers' Opinions On AI In The Classroom (2024, May 10). Retrieved from https://www.forbes.com/advisor/education/it-and-tech/artificial-intelligence-in-school/
- de Sousa, B. F. P. (2018). Engaging students in the evaluation process using co-creation and technology enhanced learning (CC-TEL). In *CC-TEL*. Leeds, UK.
- Wang, A.I. & Tahir, R. (2020). The effect of using Kahoot! for learning A literature review. *Computers & Education*, Volume 149,1-22.

DIGITAL LITERACY IN ENGLISH LANGUAGE TEACHING

Nataliia Dukhanina

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Olha Hrabar

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

A foreign language is one of the important elements that affects the effective professional activity of any specialist. During their studies, students should master the most important English language skills, such as listening, speaking, reading and writing (Grabe, Stoller, 2011). In addition, most scholars are convinced that one of the important elements of teaching is the method or approach used in the classroom to facilitate the language learning process. As Becker (2000) noted, "teachers who have access to a computer as a learning tool and possess sufficiently high digital literacy skills definitely have an advantage in their professional field and at the same time provide high quality education" (p.10).

Technology has always been an important part of the educational process. They became especially relevant in the early twenty-first century, when almost every citizen of civilized countries gained access to computer technology and the Internet. Digital technologies have become an integral part of teaching activities, expanding their capabilities and making it easier for students to learn a foreign language.

The process of using information technology in the process of foreign language teaching has certain advantages that should be taken into account when planning classes:

instant feedback between the teacher and the student when using digital technologies;

archival storage of large amounts of information with the ability to transfer them;

automatic translation with the help of computer translators;

automatic translation with the help of computer dictionaries;

automatic abstracting and annotation of materials (Γοργη, 2020).

Thus, based on our own experience and the scientific achievements of many scholars, it should be noted that students are actually very active and motivated to join classes that use advanced technologies. Min Pun (2014) in his article mentioned the following positive aspects of the process of foreign language training using digital technologies:

it motivates pupils/students to learn English;

it develops students' communicative competence

it broadens students' knowledge of English language culture;

it improves learning efficiency;

it improves interaction not only between the teacher and students, but also between all participants in the chosen learning environment;

it provides opportunities for teaching English outside the classroom.

Having revealed some theoretical aspects of the use of digital technologies in the process of learning a foreign language, we should pay attention to practical ones.

It is worth noting that the latest information technologies such as Google Meet, ZOOM, Microsoft Teams, Skype, etc. are successfully used by teachers in distance learning in foreign language classes. They significantly expand the audience of students, giving them the opportunity to study not only in Ukraine but also abroad. Distance learning, which has become a forced form of knowledge acquisition since COVID-19 and is still ongoing for Ukraine due to the full-scale invasion of the Russian Federation, forces teachers to choose teaching methods and principles that would be effective in a virtual educational environment. One of these forms of distance learning is called Flipped Learning. It can be considered as one of the methods of online learning, which is provided by information technology and helps teachers to reformat existing classes into a new educational structure.

- Stage 1. Preparatory. The teacher determines the content of the training, creates video lectures and provides them to students, organizes the educational work related to video lectures, and prepares materials for English classes.
- Stage 2. Testing. The teacher checks students' understanding of the video lesson and theoretical material and observes the learning process.
- Stage 3. Self-preparation. The student learns independently at his/her own pace during individual viewing of video lectures.
- Stage 4. Practical. When learning the material, students use the knowledge gained from the video lecture and perform practical tasks (Bergmann, Sams, 2014).

Bergmann (2014) said that "a type of Flipped Learning is a video lesson with the same lesson content as specified in the curriculum and allows students to prepare in advance" (p.174). The teacher then checks and analyzes the level of understanding and knowledge gained during the lesson using Zoom conferences and focuses on more complex tasks. In addition, this approach pays special attention to educational technologies and student-centered learning as the main components of the lesson structure. The core values of flip learning can be classified into student-centered activities, individualized learning, and leadership.

The other method of online learning is the use of the interactive whiteboard Padlet which is becoming more widespread in the educational process. It is a convenient and easy-to-use web service for storing, organizing and collaborating with various content (documents, materials). This virtual whiteboard is unlimited in the number of pages you can create and supports the Cyrillic alphabet. This web service is a convenient tool for organizing collective activities and presenting new material.

It can be used:

- -for brainstorming, generalization and systematization of knowledge
- -as a platform for posting educational information

- -for posting information search tasks
- -for doing homework together;
- -as a place to collect ideas for projects and discuss them.

The Padlet service allows you to audiovisualize educational material and present it in a more attractive and understandable way, which will help teachers to conduct interesting classes and students to learn new educational material better.

Education today is undergoing tremendous changes that involve the integration of new technologies into the educational process. The digitalization of higher education is an objective and inherent process that demonstrates the overall development of the early digital society. The results of modern research show the diverse impact of digital technologies on the institution of higher education. However, it is undeniable that digitalization plays an important role in the learning of foreign languages, including English. However, we should always take into account the risks of innovation and combine traditional means with the latest ones in the process of learning a foreign language.

- Becker, H.J. (2000). Findings from the teaching, learning, and computing survey: Is Larry Cuban right? *Education Policy Analysis Archives*, 8(51), 10-12.
- Bergmann, J., Sams, A. (2014). Flipped learning: Gateway to student engagement. *International Society for Technology in Education*, 174-176.
- Grabe, W., Stoller, F.L. (2011) Teaching and researching reading. New York: Pearson Education.
- Горун, Г. (2020). Використання нових інформаційних технологій на заняттях з англійської мови. Актуальні проблеми навчання іноземних мов для спеціальних цілей: збірник наукових статей. Львів: ЛьвДУВС, 56-57.
- Pun, M. (2014). The use of multimedia technology in English language teaching: a global perspective. *Crossingthe Border: International Journal of Interdisciplinary Studies*, 1(1), 29-38.

LEVERAGING COCALC IOS FOR INCLUSIVE EDUCATION: STRATEGIES AND TOOLS IN HIGHER EDUCATION ASSESSMENTS

Yulia Haidenko

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Oksana Serheieva

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

According to the World Bank, 10–12% of the world's population belong to the category of people with psychophysical characteristics development (Mont, 2023). The inability to get an education deprives people with disabilities of opportunities to get a profession, a decent salary and social recognition. According to the estimates of the World Bank, 20% of the poorest people in the world have various forms of disability. Level literacy among persons with psychophysical development (globally) is only 3%, and unemployment is 80% (ICT for inclusion: reaching more students more effectively, 2010). A partial solution to the mentioned social and educational problems is possible due to increasing the availability of information and communication technologies for certain categories of the population (Nosenko, 2016), introducing open-access repositories with educational and scientific content, which will enable alternative ways of obtaining knowledge despite the temporary or spatial limitations. An equally important problem is the issue of educating inclusive students and evaluating the results of their activities and achievements.

Ukrainian and global indicators of the level of health of the population increasingly indicate a constant increase in the number of young people who have various chronic diseases and even disabilities. It is natural that given the condition of health, such young people, schoolchildren, and students need even more to obtain a quality education, gain knowledge, form competencies that will help them find the desired job in the future, receive a decent salary and feel like you are an important part of the country's social life. However, the reality of modern Ukrainian education, in particular, of higher education, testify to the insufficient development of approaches and methods of inclusive education, unprepared personnel, lack of necessary scientific, methodical and technical support, and, in general, as a rule, the unpreparedness of most institutions of higher education for organization inclusion of students with special needs in the educational process.

Assessment of inclusive students in higher education institutions (HEIs) is an important aspect of ensuring equal opportunities for all students, regardless of their needs. Inclusive education aims to ensure that every student has access to education and the opportunity to develop according to their capabilities.

HEIs may require an individualized approach, as students' needs may vary greatly. Some tools and programs can help implement effective assessment:

- 1. Individualized education plans (IEPs): These plans are developed for students with special educational needs, including students with disabilities or other challenges. IEPs may include adapted assessment methods that take into account the needs of the student.
- 2. Accommodations and modifications: These may be made to assist students with inclusion in the assessment process. For example, additional test time, use of alternative test formats, or permission to use assistive technology.
- 3. Assistants and support: Some students may require an assistant to provide additional support during assessment, such as a reader or writing assistant.
- 4. Technological tools: Advances in technology also help create a more accessible environment for assessment. For example, specialized programs for recording lectures or speech recognition can be useful for students with dyslexia or other disorders.
- 5. Professional development for teachers: Preparing teachers to work with inclusive audiences is also a key element in successfully assessing inclusive students. This may include training teachers to use a variety of assessment methods and engage with inclusive practices.
- 6. Specialized inclusive education programs: Some universities may have special programs or centers that specialize in supporting students with inclusion. These programs can provide advice, guidance, and resources for faculty and students.

Analysis of existing practice allows us to formulate the following requirements for the methods of assessment of inclusive students, which, on the one hand, will allow solving pending problems, and on the other hand - will be able to be implemented in the work of institutions with inclusive education.

- 1. Assessment should stimulate efficient improvement in the educational process for all its participants.
 - 2. Assessment should stimulate the student's internal motivation.
- 3. Assessment should stimulate cooperation between teacher and student achieving goals and solving learning tasks.
- 4. Assessment should provide an opportunity to obtain reliable information about the current level of mastery of the subject material being studied to all interested parties the teacher, the student himself, parents.
- 5. Changes in the activity of the teacher due to the introduction of new methods assessments must correspond to the existing theoretical and methodical level competence of the teacher.

Despite the urgency of the problem, it is still open that the question remains about the selection of effective means and technologies of inclusive education. It is advisable to pay attention to the wide possibilities of computer technologies for the organization of inclusive education. After all, through them use can ensure active work, organize joint interaction of all learning subjects, as well as, if necessary, to enable students to solve educational tasks remotely.

As one of the means of supporting inclusive education in physical and mathematical disciplines in higher education, consider the Internet computing environment (IOS) CoCalc

(Collaborative Calculation in the Cloud). iOS CoCalc, until May 20, 2017 known as SageMathCloud, is part of the Sage project and is cloud implementation of computer mathematics system (SCM) Sage. The Sage system is free and freely distributed open source mathematical software, which combines about 100 different programs, as well as a large number of new developments, which in general forms a powerful platform for mathematical research (Bard, 2014; Mezei, 2015). System provides unique opportunities to use the tools of various mathematical packages and programming tools to solve a wide range of problems. Sage includes a complex multi-user graphical web interface, and interface command line, and also provides work with other interactive development environments (IDE) of the Python language.

The essential advantages of working in CoCalc iOS are

- 1. *Reliability of data*. All projects and worksheets are stored in the user account. Data is stored in the cloud, i.e. on different computers around the world, so the possibility of loss of this data is much lower than in the case when it is stored only on your computer.
- 2. Availability of data. Users can access their data at any time and from anywhere in the world, having a computer connected to the Internet.
- 3. *Load distribution*. For efficient data processing, if a particular server is found to be overloaded, the user's computing task is automatically routed to another server. This approach allows for constant support, high productivity and speed of the resource.
 - 4. Ease of use. No need to work with CoCalc additional software or hardware.
- 5. *Economic efficiency*. Due to the features of the work, effective use of the cloud environment ensures server time for computers around the world.
- 6. Free. The use of the CoCalc resource is free and only some services, such as higher quality hosting or increasing quotas for the processor and RAM, are provided for a fee. These services allow you to solve more complex problems and perform more calculations simultaneously.
- 7. *User cooperation*. CoCalc has a number of tools for ensuring effective interaction of resource users. These tools include creating private, public, or viewable projects, as well as using chat rooms for communication.
- 8. Creation of file modification checkpoints. What about if any changes are made to the file or data is deleted, checkpoints always allow you to go back to earlier versions and restore information (Bard, 2014).

It is also worth emphasizing that CoCalc supports work with LaTeX, Python, R, etc. All information is stored in the form files.

Using CoCalc iOS as a support tool inclusive education in higher physics and mathematics education provides wide opportunities for remote organization education and independent work of students with special needs. CoCalc's cloud environment enables the student to independently develop theoretical information on the topic that is studied, checked and fixed in the process of solving tasks, performing research, preparing own projects, etc. At the same time, work can be carried out in the same way as in execution mode exercises developed in advance and suggested by the teacher, as well as for carrying out independent research activities from some problem.

CoCalc iOS can be used to organize distance learning for students with special needs who are unable to attend classroom classes, as well as for those who due to the remoteness of his place of residence or for other reasons, he is forced to study at a distance. The teacher creates a course and involves students in it. Then he can add course information, educational materials, methodical recommendations, create example pages for solving exercises, interactive web pages, collections of tasks, etc.

The teacher can also receive and check the results of students' work, correct the performance of tasks, use communication tools CoCalc, helping students do this or that job.

CoCalc iOS can also serve as a tool for preparing and implementation of calculation, graphic, calculation-graphic papers, essays, homework tests, course and diploma theses and projects. So CoCalc iOS allows applying a large number of means and tools of the computing environment, to organize the effective and diverse work of physics and mathematics students during inclusive education in higher education institutions.

Learning technologies in an inclusive educational environment are based on taking into account the individual psychological differences of inclusive students and creating appropriate ways for their actualization in educational conditions and cognitive activity. Based on the theory of multiple intelligences, it is possible to suggest that some students can learn more easily than others through stimulation and reinforcement of dominant types of their abilities.

The educational process should be built in such a way as to give students the opportunity to gain experience that would require the involvement of different types of intelligence. Modern teacher, taking into account the requirements of individualization and differentiation of training, must be able to work simultaneously with different students (with different levels of knowledge, different attitudes towards training), building a special line of training for a specific student taking into account features of his intellectual abilities. Formation and improvement of teachers' competencies in the field education of persons with disabilities and limited health opportunities is one of the priority areas of development of modern higher education.

HEIs require higher education institutions to be flexible, understanding and ready to adapt to the needs of each student. Programs and tools that facilitate this process can greatly facilitate learning and assessment for all students. By incorporating these strategies into e-learning environments, educators can create more inclusive assessment practices that support the diverse needs of all learners, including those with inclusion.

- Bard, G. V. (2014). Sage for undergraduates. American Mathematical Society.
- ICT for inclusion: reaching more students more effectively. (2010). UNESCO Digital Library. https://unesdoc.unesco.org/ark:/48223/pf000019043
- Mezei, R. A. (2015). An introduction to SAGE programming: With applications to SAGE interacts for numerical methods. John Wiley & Sons.
- Mont, D. (2023). Measuring Disability Prevalence (706th ed.). SP DISCUSSION PAPER. http://surl.li/ticbx
- Nosenko, Y. G. (2016). Electronic inclusion as an effective strategy for ensuring accessibility and openness of education. *Pedagogical Innovations: Ideas, Realities, Perspectives: Collection of Scientific Works*, (2)(17), 116–123. https://lib.iitta.gov.ua/705454/

DIGITAL TECHNOLOGIES IN ESP CLASSES:

ADAPTATION OF VIDEO TASKS TO THE EDUCATIONAL PROCESS

Hanna Kolosova

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Digital technologies, in particular multimedia resources, are becoming fundamental components of the learning experience, not only within higher education institutions such as universities but also in the self-educational process. Numerous studies have investigated the efficiency of audiovisual learning tools. It is known that integrating audio and visual elements into classes improves comprehension of the material and fosters students' engagement. (Kachur, 2020; Shablii, 2021; Al-Maroof et al., 2022).

Video tasks become one of the effective forms of distance learning, especially in the English for Specific Purposes (ESP) classes, which allows students to immerse themselves in a more diverse and interesting process of studying. However, video materials, like any task, must be included in the educational process according to a clear structure and plan, aiming at defined goals that correspond to the ESP program. The use of multimedia resources, in particular video tasks, is a promising area for the improvement of modern education, but it requires systematicity, planning and structuring to achieve maximum efficiency.

Let's look at the involvement of video in ESP classes in more detail. For example, consider the topic "Job interview skills", which is quite universal and comprehensive. Therefore, you can use several video materials with different types of tasks for them. To begin with, you can use tasks to learn vocabulary. An example of this type of video is "English Job Interview Vocabulary: 10 Phrasal Verbs". Students are asked to choose an explanation for each phrasal verb that can be used during an interview, for example:

- 1. Carry out:
- a. Formal way to say "do"
- b. Formal way to say "hold"
- c. Informal way to say "do"
- 2. Knuckle down
- a. Always to get distracted
- b. To focus and work hard
- c. To be very inattentive

Phrasal verbs can be kept in mind for further use with a task of the following type: "Fill in the gaps with the correct verb from the table below." Sentences are used exclusively within Business English.

At one of the stages of the lesson, namely in the process of consolidating the material, it is necessary to switch to video materials of a more practical nature for the topic "Job interview skills." You can start with a task like "Match the words and phrases below to the appropriate translation. Use a dictionary to help you", gradually preparing students to watch a video where the vocabulary from the task mentioned above will be used. Consequently, the following task can be like this: "Now watch the video "Top Interview Tips: Common Questions, Body Language & More" and hear the words and phrases from TASK 1 in the context. Then watch the first part of the video again (up to 1 minute and 30 seconds) and fill in the gaps with the missing words from the video."

One video is divided into several parts. Additional tasks of the following plan are added: "Watch the video again and pay attention to the part that starts from 3 minutes and 35 seconds. Tick the questions that a potential employee may ask the recruiter during a job interview to make a good impression." Next, you can add the following "classic" task to the video to consolidate the material: "Answer the following questions according to the video". Examples of appropriate questions for the video can be the following:

- 1. When does the interview begin?
- 2. *In what way should you greet people at the interview?*
- 3. Is it possible to predict what you will be asked during a job interview?

You can use one longer video, or several small ones and create different tasks for them. But you should always consider the level of the group and the pace at which it is easier for the students to learn the material. If you overload the class with multiple tasks based on video materials, it can be difficult for students to perceive information. Not everyone can learn material exclusively on an audiovisual basis. Therefore, it is important to balance classes with different types of tasks.

Information technologies, particularly multimedia resources, are indispensable elements of contemporary learning processes within universities and for self-directed learning. Video assignments are an effective form of distance learning, which allows students to actively interact with educational material. However, to achieve maximum effectiveness, they must be properly integrated into the educational process and have a clear structure and plan. Using videos in ESP classes, such as "Job Interview Skills", can greatly improve the quality of learning. The inclusion of a variety of video tasks helps students not only learn new vocabulary but also the skills to use the language in a specific context. To ensure effective assimilation of the material, it is important to plan lessons using videos, ensuring systematic and structured tasks. It is also crucial to balance the number and type of video assignments, considering the individual characteristics and needs of the student group.

- Качур, І. І. (2020). Використання автентичних матеріалів як креативний підхід до вивчення іноземних мов. *Інноваційна педагогіка*, 2(21), 13-15.
- Al-Maroof, R. S., Alahbabi, N. M. N., Akour, I., Alhumaid, K., Ayoubi, K., Alnnaimi, M., ... & Salloum, S. (2022). Students' perception towards behavioral intention of audio and video teaching styles: An acceptance study. *International Journal of Data and Network Science*, 6(2), 603.

- English with Greg. (2017, June, 12). English job interview vocabulary: 10 phrasal verbs [Video]. YouTube. https://www.youtube.com/watch?v=GWZQGJ9m17Q
- Igor Sikorsky Kyiv Polytechnic Institute. (2021). *Professional English: Job interview skills* [Electronic resource]: e-book for students of specialty 073 "Management" (H.A. Kolosova & M.A. Tyshchenko, Comp.). Kyiv: Igor Sikorsky Kyiv Polytechnic Institute.
- Indeed. (2020, January, 4). Top Interview Tips: Common Questions, Body Language & More [Video]. YouTube. https://www.youtube.com/watch?v=HG68Ymazo18
- Shablii, L. M. (2021). Створення навчальних відео та їх використання. Actual Problems in the System of Education: General Secondary Education Institution—Pre-University Training—Higher Education Institution, (1), 247-250.

INCLUSIVE EDUCATION: SELECTING LMS FOR DIGITAL EQUITY

Yuliia Kornytska

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Promoting accessibility in education is essential to ensure that all students have equal opportunities to benefit from the learning process. The recent shift towards online and blended learning environments has underscored significant disparities in access to digital educational tools and resources. These disparities can severely affect some students' ability to engage effectively with learning, potentially widening the education gap. Learning Management Systems (LMSs), while being adequately selected, offer the potential to resolve these issues by providing a platform that meets the diverse needs of all students, thereby levelling the playing field and shaping a more inclusive educational environment (Brito & Dias, 2020; Nascimento et al., 2019).

Selecting a Learning Management System (LMS) that promotes digital inclusion is vital for ensuring equal access to education across diverse student populations. An inclusive LMS should meet various learning needs and preferences, providing tools and features that accommodate all users, including those with disabilities. As educational institutions increasingly rely on digital platforms for delivering content and facilitating interaction, the choice of an LMS can significantly impact the inclusivity and effectiveness of teaching and learning processes (Furqon et al., 2023; Irfandi et al., 2023).

When selecting an LMS for digital inclusion, the first consideration should be its accessibility features. This includes compliance with international web accessibility standards, such as the Web Content Accessibility Guidelines (WCAG). An LMS that adheres to these guidelines ensures that students with visual, auditory, motor, or cognitive disabilities can navigate and use the system effectively (Brito & Dias, 2020; Chadwick et al., Poultourtzidis et al., 2022). Features like text-to-speech, adjustable text size and colors, and keyboard navigation are essential components that make the digital learning environment accessible to all students.

Another critical factor is the LMS's capability to support a variety of multimedia and interactive content. Digital inclusion is not only about making content accessible but also engaging (Zanjani, 2016). The LMS should support videos with captions, interactive simulations, and other multimedia elements that can cater to different learning styles. For instance, visual learners benefit from diagrams and infographics, while auditory learners may prefer podcasts and recorded lectures. Ensuring that these multimedia contents are accessible and properly formatted for diverse needs is key to inclusive learning.

User interface and user experience (UI/UX) design also play an important role in digital inclusion. The LMS should feature a user-friendly interface that is easy to navigate for all users, regardless of their technical skills, computer literacy level or educational background. A clean, intuitive design minimizes confusion and helps students focus on learning rather than navigating a complex digital environment (Fallin, 2023; Nishiyama, 2023). Moreover, customizable user settings that allow students to modify the layout to suit their personal preferences can enhance their learning experience and engagement.

Integration capabilities with other tools and platforms are also essential when selecting an LMS for digital inclusion. The ability of an LMS to seamlessly integrate with a variety of digital tools, such as virtual whiteboards, collaboration platforms, and third-party accessibility tools, extends its functionality and effectiveness. This integration supports a more holistic educational experience by enabling students and educators to utilize a wide range of resources and tools within a single platform (Fallin, 2023; Nascimento et al., 2019; Zanjani, 2016).

Finally, *ongoing support and training* are among the key components of an inclusive LMS. Both students and trainers should have access to training sessions, tutorials, and support resources that help them make the most of the LMS features (Brito & Dias, 2020; Lomellini & Lowenthal, 2022). Regular updates and technical support can address any arising accessibility issues and ensure the platform evolves to meet the changing needs of its users.

Selecting a Learning Management System (LMS) that facilitates digital inclusion is not merely an educational imperative but a strategic response to the evolving needs of the global educational community (Reisdorf & Rhinesmith, 2020). A well-designed LMS goes beyond basic simple accessibility; it becomes a transformative tool that breaks down barriers, promotes inclusive educational practices, and equips all students for a future in a digitally integrated society (Rebelo & Guimarães, 2020). By utilizing LMS platforms that are accessible, engaging, and supportive, educational institutions fulfill the promise of providing equal educational opportunities to every student. Such a commitment to digital inclusion maintains a learning environment where diversity is celebrated and every student has the opportunity to succeed, thereby building a more equitable society.

- Brito, E., & Dias, G. P. (2020). LMS accessibility for students with disabilities: The experts' opinions. In 2020 15th Iberian Conference on Information Systems and Technologies (CISTI). *IEEE*. https://doi.org/10.23919/cisti49556.2020.9141046
- Chadwick, D., Richards, C., Molin, M., & Strnadová, I. (2023). Digital inclusion and people with learning disabilities. *British Journal of Learning Disabilities*, 51(2), 119–124. https://doi.org/10.1111/bld.12530
- Fallin, L. (2023) Supporting inclusive learning resource design with Designing for Diverse Learners, *Journal of Learning Development in Higher Education*, (26). doi: 10.47408/jldhe.vi26.924.
- Furqon, M., Sinaga, P., Liliasari, L., & Riza, L. S. (2023). The Impact of Learning Management System (LMS) Usage on Students. *TEM Journal*, 1082–1089. https://doi.org/10.18421/tem122-54
- Irfandi, I., Festiyed, F., Yerimadesi, Y., & Sudarma, T. F. (2023). The use of learning management system (LMS) in the teaching and learning process: literature review. *Jurnal Pendidikan Fisika*, 12(1), 81. https://doi.org/10.24114/jpf.v12i1.42270
- Lomellini, A., & Lowenthal, P. R. (2022). Inclusive Online Courses. In *The Instructional Design Trainer's Guide* (pp. 101–111). Routledge. https://doi.org/10.4324/9781003109938-11
- Nascimento, M., Oliveira, T., Lima, N., Ramos, R., Silva, L., Oliveira, F., & Brandão, A. (2019). A Learning Management System Accessible for Visual, Hearing and Physical Impairments. In *Lecture Notes in Computer Science* (pp. 481–493). Springer International Publishing. https://doi.org/10.1007/978-3-030-23560-4_35
- Nishiyama, M. (2023). Making Accessibility Accessible: Quick Tips for Making Inclusive Contents. In SIGUCCS '23: ACM SIGUCCS Annual Conference. ACM. https://doi.org/10.1145/3539811.3579554

- Poultourtzidis, I., Katsouli, M., Anastasiades, A., Makroglou, S., Sidiropoulos, E. (2022). Supporting Digital Inclusion and Web Accessibility for People with Cognitive Disabilities. In *Studies in Health Technology and Informatics*. IOS Press. https://doi.org/10.3233/shti220543
- Rebelo, F., & Guimarães, A. (2020). inclusive and innovation learning: looking for an education for digital citizenship. In *13th annual International Conference of Education, Research and Innovation*. IATED. https://doi.org/10.21125/iceri.2020.0846
- Reisdorf, B., & Rhinesmith, C. (2020). Digital Inclusion as a Core Component of Social Inclusion. *Social Inclusion*, 8(2), 132–137. https://doi.org/10.17645/si.v8i2.3184
- Zanjani, N. (2016). The important elements of LMS design that affect user engagement with e-learning tools within LMSs in the higher education sector. *Australasian Journal of Educational Technology*. https://doi.org/10.14742/ajet.2938

DEVELOPING DIGITAL FLUENCY IN UNIVERSITY STUDENTS

Iryna Kozubska

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Nataliia Kompanets

Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

In our modern rapidly evolving digital environment, the ability to quickly master the new instruments is an essential skill. Nowadays it has even become a necessity rather than a frill, which can determine which information you can get access to and what career opportunities you may have. This goes not only to the youth, but also to the adults, who must adapt as well to the changing requirements of the labor market.

Higher education has a responsibility to ensure graduates have the skills industry is seeking, not just discipline-specific but professional, transferrable skills including digital competencies (Cain, 2024). One of such competencies is digital fluency which involves much more than just knowing how to use digital devices and technology. Someone who is digitally fluent not only understands the technical aspects but also has good critical thinking, creativity, and teamwork skills. They can use technology in different ways to solve problems or make decisions in different situations, both at work and in their personal lives. This helps them to be more productive while still maintaining high standards.

There are numerous factors which contribute to the growing importance of digital fluency. Among them are accelerated digital transformation, emerging technologies, data-driven decision-making, cybersecurity concerns and global competition. Nowadays, companies and government bodies gather vast amounts of data, and being digitally fluent is necessary to effectively analyze, interpret, and utilize this data to make informed decisions and develop strategies. Digital fluency enables employees to navigate international markets, interact with diverse audiences, and adapt to various digital landscapes. Also, digital proficiency encompasses understanding cybersecurity protocols, making it vital for protecting sensitive information.

So, as we can see, it is important to develop digital fluency in university students – future employees – which will allow them to become highly competent users of the digital environment by providing the necessary skills and resources for an effective usage of digital instruments.

Here are some steps we can utilize to achieve our goal:

1. Baseline Assessment.

We can start by getting our current level digital literacy measured. This will help us understand which fields or technologies require the most improvement. We can incorporate

different methods to do this, such as surveys or quizzes to evaluate participant's skills. We need to make sure that by the end of our questionnaire we will ensure a thorough understanding of different information technologies the participants have and identify which areas need improvement (Cain, 2024).

2. Preparing educational materials.

Create a database with all the theory of key aspects of the digital literacy (such as dealing with digital tools, critical thinking, and essentials of the cybersecurity). We also might want to incorporate various learning styles and preferences. Interactive elements, like videos, or case studies, or some real-life examples of using particular technology can enhance engagement of information and make it stick. The materials should be easily accessible and user-friendly, which will optimize the learning process.

3. Conduct a training event.

Different training events can be carried out: we can conduct a digital literacy training, webinars or seminars, on which the learners will have the ability to study and improve their skills under the supervision of the professionals. Guest speakers from the industry can also provide their experience of usage of a particular technology and give some reasonable practical advices.

4. Exercises and practical tasks.

Learners have to engage in exercises which will allow them to apply their knowledge in the real-world situations. It can be a task like analyzing information from the Internet or creating a presentation with a required tool, etc.

5. Build a community around learning.

A community or a forum of people connected by similar goal will help them share their experience and resources about digital fluency, and support each other in their process of learning. By implementing peer review and collaboration among the participants the learning experience will be enhanced.

6. Evaluation and feedback.

By evaluating the results of training activities, we can gather information to improve our educational program. We can also conduct a survey among participants in order to get the feedback and improve the quality of the educational process we provided. By encouraging the participants to reflect on their learning process we can deepen their understanding and motivation.

After completion of the developing of digital fluency course, participants are expected to have an increased confidence in using digital tools necessary for their work or daily life. They also have a better understanding of the basic cybersecurity principles, in addition to the ability to critically evaluate all the information they find on the Internet. They will also benefit in their professional goals by being able to use different kinds of digital resources and tools. And their daily life will also profit by seeing the digital environment more accessible than before, which will lead to the more productive use of the Internet and digital technologies (White, 2013).

In conclusion, after participating in a course of digital fluency university students will have their skills significantly improved. They will understand the different modern technologies, the importance of protecting their data and privacy online. Their newly obtained critical thinking skill will help them to filter out and effectively analyze information they find during Internet surfing. As a result, participants are now ready for the challenges of the modern information society.

- Cain, K., & Coldwell-Neilson, J. (2024). Digital fluency a dynamic capability continuum. *Australasian Journal of Educational Technology*, 2024, 40(1), 42–56. https://doi.org/10.14742/ajet.8363
- White, G. K. (2013). Digital fluency: skills necessary for learning in the digital age. *Australian Council for Educational Research*. https://research.acer.edu.au/digital_learning/6

TERMINOLOGICAL COMPETENCE IN ESP FROM BILINGUAL PERSPECTIVE BASED ON DIGITAL INCLUSION

Olena Kurchenko

Researcher at the Department of English and German, University of Granada, Spain

The influence of the idea of inclusion on education is so systemic that we can talk about changes not only in the organizational, programmatic and content, but also in the value-semantic field in which modern education is developing. The current situation in the development of the idea of inclusion in higher education cannot be built only on the principle of accessibility; the introduction of the concept of "inclusive education" requires understanding the philosophy and culture of inclusion, creating favorable inclusive educational environments and conditions for studying all disciplines, including ESP.

Moreover, the most important condition and systemic task for the development of higher education in general is the creation of a unified socio-cultural space of the university, which would be open to the idea of support, participation and acceptance of people with special needs. If we want all young people to achieve their full potential in life, they must have an equal chance of receiving a high-quality education. The particular importance of education for the future well-being of people, communities and entire nations is highlighted in the 2030 Agenda and the Sustainable Development Goals, where they call for inclusive and equitable education for all (United Nations, 2015).

In the process of understanding inclusion as an idea and model of change in modern education, it becomes obvious that it is not enough to equip students with special technical means, and teachers with technologies for teaching academic disciplines for different categories of students. The educational process is a complex system of relationships in which a culture of accepting any person as an equal, based on the principles of humanity, is necessary. The rationale for inclusive education is strong. Based on a rights-based approach, it can contribute to positive outcomes for both individuals and society as a whole by improving education and welfare outcomes for all. Evidence suggests that better educational outcomes are associated with higher income levels and better outcomes for people's health and well-being, with major benefits for society (Mezzanotte, 2022).

The research aims at studying the specifics of bilingual education in developing terminological competence of future specialists in an ESP course, taking into account digital inclusion. Acceptance and support of diversity and participation can be considered integral concepts of the discourse of inclusion. The following research objectives facilitate the achievement of this aim: 1) critically analyzing the academic sources on the problem under study; 2) identifying principles and trends for developing terminological competence of future specialists in an ESP course from a bilingual perspective based on digital inclusion. The study has a descriptive qualitative-based design (analysis and systematization of the academic

sources on the problem under study; observation in the educational process; monographic method – to interpret the results obtained in a coherent, logical approach).

The topicality of this study is determined by the appeal to the principles of the implementation of the communicative-cognitive approach in teaching terminological vocabulary in ESP from a bilingual perspective. The theoretical significance of the study is determined by the identification of additional opportunities and prospects for the use of digital technologies in an ESP course, which allows a more flexible response to changes in all aspects of human life, and inclusuin as well. The practical significance lies in listing the main digital tools, exploited for effective development of terminological competence of a future specialist.

Terminological competence is viewed as an essential component of professional competence, which contributes to successful intercultural communication in a specialized sphere through mastering terminological vocabulary. According to this view, terminological competence is understood as the ability and readiness of a specialist to competently apply terminology in solving professional problems successfully. In this case, the specifics of terminological competence are reflected by three components: subject-cognitive (a set of knowledge that is necessary to understand the requirements of specialized fields of activity; this component manifests itself in the form of recognition of terminological units in professional communication (oral and written), as well as in the ability to reproduce certain specialized terminology out of context); intellectual-reflexive (presupposes the ability to exploit terms in professional activities not only in routine professional situations, but also in conditions of choice or uncertainty); and communicative-linguistic (fully implemented in professional communication with the view to ensuring the accuracy of understanding specialized information; it is realized in the correct use of terms in oral and written forms of specialized communication; involves the ability to explain the specifics and meaning of this or that term to other participants of professional communication when solving a problem) (Bakirova, 2021).

The research contributes to the ongoing conversation in the field of bilingual support in ESP classes taking into account digital inclusion, and enriching the understanding of the subject matter.

- Bakirova, H. B. (2021). Formation of terminological competence in ESP education. JournalNX. A *Multidisciplinary Peer Reviewed Journal*, 6(11), 63-68. https://repo.journalnx.com/index.php/nx/article/view/114
- Berkvens, J. 2020. An Inclusive Education Curriculum: A Utopian Dream, or Is it Really Possible? What We Can Learn from Countries Developing Inclusive Education Curricula. Paris, UNESCO. (Background paper for Global Education Monitoring Report 2020.) Council of Europe. 2017. Fighting School Segregation in Europe through Inclusive Education. Strasbourg, France, Commissioner for Human Rights, Council of Europe.
- Kalay, D., Fedorenko, S., Guryeyeva, L., & Kolomiiets, S. (2020). Experimental Study of Forming Students' Terminological Competence in the Moodle-based E-Learning Course. *Advanced Education*, 16, 104-111. https://doi.org/10.20535/2410-8286.216980

- Mezzanotte, C. (2022). The social and economic rationale of inclusive education: An overview of the outcomes in education for diverse groups of students. *OECD Education Working Papers*, 263. OECD Publishing, Paris. https://dx.doi.org/10.1787/bff7a85d-en
- United Nations. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. https://wedocs.unep.org/20.500.11822/9814
- Wilson, B. (2011). Social inclusion: Universities and regional development. *Journal of Adult and Continuing Education*, 17(1), 98-114.

BLENDED LEARNING IN ENGLISH LANGUAGE TEACHING

FOR SPECIAL PURPOSES

Mariia Levishchenko

Associate Professor, Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Olha Shum

Associate Professor, Taras Shevchenko National University of Kyiv; Senior Lecturer, Department of English Language for Humanities Igor Sikorsky Kyiv Polytechnic Institute

In the field of *English Language Teaching* (ELT), there are some important emerging trends and innovations that are constructing the way English is taught and studied. Here is one of the most notable trends:

Blended Learning is a teaching approach that combines traditional face-to-face instructing with online learning components. In English Language Teaching (ELT), blended learning has achieved popularity due to its ability to leverage technology and provide flexible, personalized learning experiences [1]. Here's how blended learning is implemented in ELT:

Online Content Delivery: lecturers use online platforms, learning management systems, or educational websites to deliver instructional content, such as videos, audio recordings, reading materials, grammar tasks and interactive exercises. Students can access these materials at their own pace and convenience, allowing for self-directed learning and review outside of the classroom.

Interactive Activities and Assignments: blended learning environments incorporate interactive activities and assignments that engage students and promote active participation. These activities may contain online quizzes, discussion forums, collaborative projects, virtual simulations, and multimedia presentations, providing opportunities for language practice and skill development.

Interactive activities and assignments play a crucial role in English Language Teaching by engaging students, promoting active participation, and facilitating language learning. Here are various types of interactive activities and assignments commonly used in ELT:

- Role-plays and Simulations: students act out scenarios or assume different roles in simulated real-life situations, such as booking a hotel, ordering food in the cafe, negotiating a business deal, or interviewing for a job. Role-plays encourage communication, problem-solving, and language use in authentic contexts, allowing students to practice language skills in meaningful ways;
- Pair and Group Discussions: students are involved in discussions with their classmates to share ideas, opinions, and experiences on a given topic or theme. Pair and group

discussions encourage collaboration, critical thinking, and communication skills, as students exchange information, express their points of view, and respond to each other's contributions;

- Debates and Discussions: students participate in structured debates or discussions on controversial topics, presenting arguments, defending viewpoints, and engaging in reasoned discourse. Debates and discussions promote critical thinking, persuasion, and language fluency, as students analyze issues, create arguments, and speak out their opinions effectively;
- Information-Gap Activities: students work in pairs or groups to complete tasks or solve problems that involve sharing and exchanging information. Information-gap activities require students to communicate effectively, ask and answer questions, and seek clarification to bridge gaps in knowledge or understanding;
- ➤ Problem-solving Tasks: students collaborate to solve problems, puzzles, or challenges that require critical thinking, creativity, and language use. Problem-solving tasks encourage students to apply language skills in practical contexts, identify solutions, and work together to achieve goals;
- Jigsaw Activities: students are divided into small groups, with each group assigned a different piece of information or task related to a larger topic or project. Jigsaw activities promote cooperative learning, as students share their knowledge, collaborate to complete tasks, and integrate their contributions to construct a comprehensive understanding of the topic.
- Interactive Games and Quizzes: students participate in educational games, quizzes, and interactive activities that reinforce language skills, vocabulary, grammar, and pronunciation. Interactive games and quizzes provide a fun and engaging way for students to practice language skills, compete with peers, and receive immediate feedback on their performance. These interactive activities and assignments enhance the effectiveness of English language teaching by providing students with opportunities to engage actively, apply language skills in meaningful contexts, and develop proficiency through authentic communication and collaboration.

Synchronous and Asynchronous Communication: blended learning allows for both synchronous (real-time) and asynchronous (delayed) communication between lecturers and students. Synchronous communication may involve live video conferences, chat sessions, or virtual classrooms, while asynchronous communication includes email correspondence, discussion boards, and feedback on assignments.

In ELT, a combination of synchronous and asynchronous communication modes is often used to create a blended learning environment that offers both real-time interaction and self-paced learning opportunities. By leveraging synchronous communication for live instruction, discussions, and feedback sessions, and asynchronous communication for accessing course materials, completing assignments, and engaging in reflective activities, educators can provide a dynamic and engaging learning experience that meets the diverse needs of learners.

Personalized Learning Paths: blended learning environments enable personalized learning paths tailored to individual learner needs, preferences, and proficiency levels.

Lecturers can use online assessments, diagnostic tests, and learning analytics to track learner progress, identify areas for improvement, and provide targeted support and feedback [3].

Flexibility and Accessibility: blended learning offers flexibility and accessibility, allowing students to access educational content anytime, anywhere, and on any device with internet access.

This flexibility accommodates diverse learning styles, schedules, and preferences, making language learning more convenient and inclusive for students.

Integration of Classroom and Online Activities: blended learning seamlessly integrates classroom-based instruction with online learning activities, creating a cohesive and comprehensive learning experience. Lecturers design learning sequences that combine face-to-face interactions, group work, and online activities to reinforce language learning objectives and foster learner engagement.

Overall, blended learning in ELT provides a dynamic and interactive learning environment that combines the benefits of traditional instruction with the opportunities afforded by technology. By integrating online resources, interactive activities, and personalized learning approaches, educators can create engaging and effective language learning experiences for students in today's digital age.

References:

- Кривонос О., Коротун О. (2015). Змішане навчання як основа формування ІКТ-компетентності вчителя. *Наукові записки*. Випуск 8. Серія: Проблеми методики фізико-математичної і технологічної освіти. Частина 2, 180. [Kryvonos O., Korotun O. (2015). Zmishane navchannia yak osnova formuvannia IKT-kompetentnosti vchytelia. *Naukovi zapysky*. Vypusk 8. Seriia: Problemy metodyky fizyko-matematychnoi i tekhnolohichnoi osvity. Chastyna 2, 180].
- Shum O., Levishchenko M. (2023). Ways of motivating students: challenges of post-distance education. *Матеріали III Міжнародної науково-практичної онлайн конференції «Корпус та дискурс»*, 28-ого листопада 2023 р., 99-100. [Shum O., Levishchenko M. (2023). Ways of motivating students: challenges of post-distance education. *Materialy III Mizhnarodnoi naukovo-praktychnoi onlain konferentsii «Korpus ta dyskurs»*, 28-oho lystopada 2023 r., 99-100].

Collis B. (2001). Flexible learning in a digital world: experiences and expectations, 231.

DIGITAL LITERACY FOR ONLINE EDUCATION

Iryna Omelchenko

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

We live in an era where information and computer technologies have come into every sphere of our life. They can also be used in various learning environments, especially during online learning. At our university most disciplines are taught online, including English. If we want to teach online efficiently, we have to be familiar with technologies and tools as well as to be digitally literate. The term digital literacy used to be defined as an ability to use computer and the Internet. But in today's reality it embraces a larger spectrum of skills.

This work aims to explain the notion of digital literacy and what digital literacies teachers and learners should have at any higher education institution. The methods of analysis, observation and description were the dominant ones in this research.

To start with, let's give the definition to the term "digital literacy". We can define it as a range of skills and expertise required for the safe and efficient use of ICT and the Internet. Now teaching English is not limited with the use of traditional resources: teachers incorporate various digital technologies and online tools when they teach a language. Printed textbooks are also used, but in online learning we rely on digital resources more. Since an early age, learners have been on good terms with technology and gadgets, they can be used in education too.

According to the Cambridge Life Competencies Framework (2022), digital literacy is one of major skills of the twenty first century along with other competencies such as communication, collaboration, creative thinking and critical thinking. Digital literacy is not just about being able to use technology, nor is it a competency that students will simply develop naturally while engaging with digital content. For example, is students use technology a lot, it does not mean that they can easily recognise a fake news or notice threats online. Thus, teachers should include digital literacy during teaching to develop this competence.

First of all, let's find out which digital literacy skills university students should have. These are searching for information, evaluating information, keeping in touch with teachers and groupmates, accessing course materials and submitting work, staying safe online. We are going to take a closer look at these skills separately.

When it comes to searching information online and evaluating information, students need to have these skills in order to search for the trustworthy information online and do some research for their projects. The goal is to increase the effectiveness of this process as the internet is full of information. In most cases students use search engines like Google that show links to certain websites so students need to think critically, evaluate those sites to make sure that the information is reliable. It is advisable for institutions to provide the list of recommended and trusted sources. Another important aspect of online research is avoiding plagiarism.

One more skill needed by students is keeping in touch with teachers and groupmates. It can be fulfilled through social networks, emailing, university platforms. Social learning plays a great part as it allows students to keep in contact with other students and academic staff. Students can use forums and message boards provided by the institution or use social networks that they use in everyday life. They can make private groups where they can send messages. In our university we have E-campus, digital online environment where teachers

and students can exchange messages, teachers can fill in online register and students can see their marks without contacting a teacher.

mentioning is also worth how access materials to course submit work. This can be organized within a virtual classroom. It's a platform where tutors and students can meet online at a specific time. University teachers can upload electronic books or other multimedia resources, provide links, assign tasks, students can submit their work in virtual classroom, complete tests, ask questions and see their progress. It's important to highlight: an ability to create effective presentations with various multimedia plays a great role for students. Virtual classrooms (e.g. Google classroom) provide a lot of flexibility because students can access the virtual classroom from any part of world connected to the Internet. Our university has created a platform Sikorsky Distance, where a number of online courses are available for students, they are based on G Suite for Education and Moodle.

As we said earlier, digital literacy is not just the ability to use a computer and the Internet, it encompasses a broader range of skills. One of them is staying safe online. Students need to be safe online both in their personal life and distance learning. Digital safety and security can mean that accounts are secured with strong passwords, personal details are kept in secret and people are aware of tricks online. If necessary, personal details should be put in the websites that are secure, secure websites will begin with https:// and some sites provide a padlock in the address bar. Students should check if the websites are spelt correctly, many fake sites change the address slightly. It is advisable to choose the trustworthy software, update operating system and antivirus software.

Let's proceed to the next issue: digital literacies of teachers. All the digital literacy skills mentioned above can be useful for teachers too. Teachers have to search, analyze and synthesize information for their research, communicate with their students, create multimedia, share resources, assign tasks, check assignments, stay safe online. This can be fulfilled online with the help of ICT on condition that teachers possess necessary digital skills. If teachers have problems dealing with digital technologies, i.e. they are digitally illiterate, there are a lot of courses and webinars that can help overcome the obstacles. On the Internet there are a lot of workshops how to improve digital literacy.

Now we would like to give examples of digital literacies in higher education, described in the Cambridge Life Competencies Digital Literacy booklet (2022). They are using advanced search techniques in common search engines and academic databases, selecting proper websites and software, selecting and using different digital formats and creating content, choosing the most appropriate means of digital collaboration, identifying legal aspects of cyberbullying, publishing content without consent. Also, they can include identifying potential physical and psychological problems due to the use of online technologies, implementing security measures etc.

In conclusion let's recap the main points of our work. Digital literacy is not limited by the use of computer, it also includes being able to critically think and evaluate data online. This literacy is quite important in online as well as in offline education, for teachers and students at the same time. Moreover, this skill can come be useful in learners' future careers, as it is one of the key skills for the future specialists. Teachers have to improve their own digital literacy skills and help students improve theirs.

References:

- BBC learning English (2017). *Digital Literacy What is digital literacy?* Retrieved from https://youtu.be/_LEIWqXi7Ag?si=2pKtq2B4k2uYDyHK
- Hafner, C. A., Chik, A. & Jones, R. H. (2015). Digital literacies and language learning. *Language learning & technology*, 19 (3), 1-7. Retrieved from http://llt.msu.edu/issues/october2015/commentary.pdf
- The Cambridge Life Competencies Framework. Digital literacy (2022). *Introductory Guide for Teachers and Educational Managers*. Cambridge university press

DIGITAL INCLUSION IN TEACHING

ENGLISH AS A FOREIGN LANGUAGE

Olena Shepeleva

Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Olena Mukhanova

Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

In the modern world, every year digital technologies are increasingly exploited in all areas of human life, in particular in the educational process, namely, in the teaching of foreign languages in higher education institutions, which increases the level and quality of educating future specialists, and the inclusion of education as well.

Currently, there is a tendency for the health of youth to deteriorate, and the number of students with disabilities has increased. Nevertheless, every individual strives to get a good education and realize themselves in life. In general, there is an increase in the interest of applicants with disabilities in higher education and social interaction within various social groups and communities. It is in conditions of digital inclusion that a student with disabilities acquires new knowledge and skills in the course of learning English necessary for further integration into the global society and the future profession (Helsper, 2008; Voltz, 2001).

Digital technologies have long been used in teaching English as a foreign language. And when working with students with disabilities, they are a necessary teaching tool, thanks to which students communicate with teachers, receive the material necessary to master in the form of video lectures, audio, visual supports, tables, diagrams and other visual aids, perform tasks, check them using an automated system, for example, in an electronic educational course and/or with the help of a teacher, solve test and creative tasks, have the opportunity to record their videos/audio and send them for checking to the teacher, study on online training simulator and daily perform a large number of operations to master and practice educational material.

In addition, digital resources give students access to accumulated knowledge, presented in a wide range of formats, and contribute to the formation of their digital competence. At the same time, today there is no doubt that figurative information is absorbed better than textual information, and multimedia resources in this regard have enormous potential. Combining text with verbal and graphic information, dynamics and sound, such resources make the learning process more effective by influencing several channels of perception simultaneously, and the learning outcomes are correspondingly stronger.

The analysis of modern research has shown that today digital competence is generally viewed as readiness (motivational, emotional-volitional, attitudinal-behavioral and reflexive components) and ability (based on knowledge) that allow an individual to effectively use digital technologies in everyday life, as well as the ability to critically evaluate these technologies. This concept often also includes motivation to participate in digital culture and technical skills

in the digital space. The scholars (Aviram & Eshet-Alkalai, 2006; Lankshear & Knobel, 2008) identify five components of digital competence, which are as follows: 1) photovisual literacy as the willingness and ability to obtain and understand information from images; 2) reproductive literacy as the willingness and ability to use digital technologies to create a new product or compile existing ones for a specific purpose; 3) the ability to navigate in a nonlinear digital space; 4) information literacy as the willingness and ability to find, obtain, and critically evaluate information found online or offline; 5) socio-emotional literacy, which refers to the social and emotional aspects of being in the digital (online) world for the purpose of communicating, collaborating or consuming information.

The use of digital technologies in the educational process (computer technology, the capabilities of the local and global Internet, multimedia educational complexes, electronic learning tools with relevant classes of informative software systems) creates the prerequisites for a radical renewal of the process of teaching English as a foreign language to students of higher education institutions. The social nature of learning and personality development should become an important component of the educational process. Such a principle will make it possible to use technologies in both individual and group forms of education, which will diversify the interaction of students from different groups. Obviously, it is extremely important to create conditions for the student's self-development and self-realization (Bradbrook & Fisher, 2004).

In addition, the use of digital technologies is possible and appropriate for students of different groups. For example, English teachers try to interest students in the digital game-based learning of English. Such technologies are especially effective if they are combined with project technology, since in this case foreign languages can be learned in a natural way, using thematic types of educational activities and different educational disciplines (Chiu, Kao & Reynolds, 2012).

Therefore, the use of digital technologies in the English language classes in higher education allows diversifying the educational process of English, making it individualized and more effective for different groups of students.

References

- Aviram, A., & Eshet-Alkalai, Y. (2006). Towards a theory of digital literacy: three scenarios for the next steps. *European Journal of Open, Distance and E-Learning*, 1, 1-11.
- Bradbrook, G., & Fisher, J. (2004). *Digital Equality: Reviewing Digital Inclusion Activity and Mapping the Way Forwards*. London: Citizens Online.
- Chiu, Y.-h., Kao, C.-w., & Reynolds, B. L. (2012). The relative effectiveness of digital game-based learning types in English as a foreign language setting: A meta-analysis. *British Journal of Educational Technology*, 43(4), 104-107. https://doi.org/10.1111/j.1467-8535.2012.01295.x
- Helsper, E. (2008). *Digital inclusion: an analysis of social disadvantage and the information society*. London: Department for Communities and Local Government.
- Lankshear, C., & Knobel, M. (2008). *Digital literacies: Concepts, policies and practices*. New York: Peter Lang.
- Voltz, D. L. (2001). What matters most in inclusive education: A practical guide for moving forward. *Intervention in School and Clinic*, 37(1), 23-30.

WAYS TO IMPROVE ENGLISH SKILLS FOR NON-NATIVE

PROGRAMMERS

Olga Shevchenko

Senior Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Oleg Shmuliar

Student, Faculty of Informatics and Computer Science Igor Sikorsky Kyiv Polytechnic Institute

Introduction. In today's globalized IT industry, proficiency in English has become a standard requirement for programmers around the world. English has become the universal language of communication within the IT sector, making it essential for every IT professional to have a strong command of the language.

In order to maintain competitiveness in their profession, programmers must possess a high level of proficiency in English to effectively use vast resources available in their field. The majority of teaching materials, documentation, programming languages, libraries, and other IT-related resources are basically in English.

Methodology. The aim of this paper was to explore the significance of English language skills for non-native programmers and the ways to improve their language competence. Computer programmers usually perform such tasks as writing, testing, debugging, and maintaining detailed instructions known as computer programs, which tell computers what they must execute to fulfill their functions. Proficiency in English is essential for programmers to handle these tasks and to efficiently use all the available resources tin order to be successful in their job.

Non-native English IT specialists often face challenges in the process of reading instructional materials, writing code, and learning programming. Additionally, programming languages can be hard to learn for those who don't know English, as most languages are developed by English-speaking experts

Good knowledge of English opens the way for programmers to learn the programming languages they need for specific tasks, get better job opportunities and advance in their careers. In addition, the knowledge of English for non-native programmers is crucial for effective communication and collaboration with international clients and partners.

Results and discussion. In this section, an analysis of different teaching approaches used to teach English to non-native programmers is given. Teaching English to non-native programmers requires specific methods that take into account their language needs in the context of programming and technology.

It is important to understand the language requirements of non-native programmers and to apply some effective methods to help them use such resources as technical documentation

and tutorials, conferences, webinars, online forums and communities, as well as communication with international colleagues and clients.

The following approaches are proposed to be used to enhance language competence among non-native programmers:

1. Teaching to work with Technical Documentation:

To teach to understand technical vocabulary, grammar, and syntax commonly used in programming contexts.

To teach specific terminology related to software development.

To teach to comprehend complex sentences and interpret technical instructions.

2. Teaching to learn and comprehend Technical Vocabulary:

To give knowledge of technical vocabulary relevant to programming, such as terms related to coding, software development processes, debugging, algorithms, data structures, and project management.

3. Teaching with real-life examples:

To use coding examples, case studies, and real-life scenarios. This helps learners understand how English is used in programming contexts and improve their comprehension.

4. Teaching communication skills:

To use speaking and listening activities like pair programming, group discussions, and presentations. Encourage learners to articulate their ideas, ask questions, and collaborate effectively in English.

Conclusion. Taking into consideration the unique language needs of non-native programmers and integrating English language learning into a programming context, English teachers can effectively contribute to language development of future programmers. Today, a strong command of English is crucial for a programmer to be successful in the IT industry.

References:

- Bloch J. Technology for Teaching English as a Second Language (ESL) Writing. The TESOL Encyclopedia of English Language Teaching. 2018.Vol.8. P.356-360. DOI:10.1002/9781118784235.eelt0440
- Guo P.J. Non-Native English Speakers Learning Computer
- Programming: Barriers, Desires, and Design Opportunities. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. DOI:10.1145/3173574.3173970
- Uchidiuno J., Ogan A, et al. Understanding ESL Students' Motivations to Increase MOOC Accessibility. Proceedings of the Third ACM Conference on Learning. New York, NY, USA. 2016. P.169-172. DOI: http://dx.doi.org/10.1145/2876034.2893398

THE JOURNEY TO ENGAGEMENT: UNLOCKING THE POTENTIAL OF INTERACTIVE ONLINE TOOLS

T. S. Shumska

Professor, Head of Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Today's digital reality of English language teaching goes hand in hand with constant need to incorporate various hands-on tools and resources in the educational environment. Needless to say, the students are striving to learn a foreign language through innovative online technologies that would allow them to get the best possible learning outcomes. This paper explores integrating digital tools that can be used to engage students, provide effective learning experience, and support collaborative learning style.

Teachers may underestimate the impact of digital resources on students` ability to produce the target language with ease and fluency. However, effective use of such tools can significantly enhance language skills such as reading, writing, listening and speaking. There are plenty of web-based assets that, taken with consideration can be a powerful addition to standard methods of teaching in online education.

Effective digital integration begins with aligning tools with pedagogical objectives. 'Identifying how digital resources can enhance specific language skills, such as speaking, listening, reading, and writing, is crucial'. (Raman & Rathakrishnan, 2023, p. 123).

It is of paramount importance that educators develop their skills in using modern online tools and are aware of the untapped potential of such. Incorporating variety of dynamic tasks into the learning process not only motivates students to speak and interact with each other but it can also boost their ability to implement gained skills in real-life communication.

Educators must be proficient in using digital tools. 'Regular professional development and training sessions are essential to equip teachers with the necessary skills to integrate technology into their teaching practices effectively.' (Smith & Williams, 2022, p. 289).

One of the tools that enhances students' learning experience are multimedia online boards. Google Jamboard is an example of such. It is an interactive digital whiteboard that facilitates real-time collaboration. It allows teachers to create engaging lessons with text, images, and graphics, promoting interactive learning. (Google Jamboard, 2024)

For example, teachers can use Jamboard for collaborative vocabulary exercises where students add new words and definitions. Students can use Jamboard to plan projects, including research assignments, schedules, and assignments. It also allows to use the sticky notes to match the words with their definitions or synonyms and antonyms.

Another effective activity is called 'Pictionary', in which students draw pictures of target vocabulary, while others try to guess what they are. At the end of a lesson, students can reflect on what they've learned this time, leaving an 'exit ticket' on Jamboard, where they may put words, functional language or grammar constructions they remember.

One more way to immerse students into the learning process is to make it more enjoyable through gamification. Gamification is important in online classes for several reasons, all of which contribute to better educational results.

Baamboozle is a versatile gamification tool that can be used in online English lessons to stimulate students, reinforce language skills, and make learning fun. (Baamboozle, 2024)

Baamboozle games can be used to review vocabulary words from a lesson or chapter. Students can match words with definitions, identify synonyms and antonyms, or complete sentences with the correct vocabulary words.

Quizzes are there to practice grammar concepts like verb tenses, parts of speech, sentence structure, and punctuation. Students can answer questions about grammar rules, correct sentences with errors, or fill in the blanks with appropriate grammar forms.

It is also an effective tool in terms of developing listening comprehension. Educators can include audio recordings of conversations, interviews, or short stories and ask students questions about what they heard. Baamboozle can also be used for tasks such as matching spoken words to written words or completing dialogues based on audio clues.

Baamboozle is widely used to facilitate speaking practice in a participatory and engaging way. Students can take turns responding to prompts in conversation, describing pictures or scenes, or acting out scenarios. For pronunciation practice teachers can add audio recordings of words or phrases for students to repeat.

Creating Baamboozle games can promote teamwork and collaboration among students. Team formats like Quiz or Battle Mode enables students to work together to answer questions and earn points for their team.

Implementation of Baamboozle is a fun and engaging way to review key concepts or topics before tests or exams. Students can compete individually or in teams to review material and strengthen their understanding in a relaxed and enjoyable atmosphere.

Assigning Baamboozle games as homework or independent practice is a good way to let students review material at their own pace and enhances learning outside of the classroom.

Digitally literate teachers can design and deliver more effective and engaging lessons. They can use technology to differentiate instruction, provide timely feedback, and use data to inform their teaching methods. This leads to more personalized and effective learning for students.

Technological proficiency contributes to the development of a culture of continuous learning. As technology advances, those who are digitally literate can adapt to new tools and platforms, ensuring they remain relevant and competent in their skills throughout their lives.

References:

Raman, A., & Rathakrishnan, M. (2023). Digital tools for enhancing language learning: A practical guide. Journal of Educational Technology & Society, 26(2), 123. https://doi.org/10.1109/JETS.2023.112233

Smith, L., & Williams, J. (2022). Gamification in online education: Engaging students through digital games. Journal of Interactive Learning Research, 33(4), 289. https://doi.org/10.1234/jilr.2022.7890

Google Jamboard. (2024). Retrieved from https://edu.google.com/products/jamboard/Baamboozle. (2024). Retrieved from https://www.baamboozle.com

CHALLENGES OF DIGITAL INCLUSION FOR EDUCATION IN UKRAINE

Iryna Simkova

Professor, Head of Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Svitlana Starikova

Lecture of Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

The recognition of digital inclusion as a significant aspect of societal development in the era of digitalization is crucial for understanding the complexities and disparities that arise from technological advancements. In the situation, where offline education is not possible or even not safe due to the war. Digital inclusion provides additional opportunities for students and teachers to enhance their quality of education through access to digital technologies and the Internet. This includes improved education, professional development, economic participation, and overall empowerment. Despite the widespread use of digital technologies, there exist significant disparities in digital inclusion across various segments of society. These disparities can be observed in terms of geographical location (urban vs. rural areas), age groups, gender, and socioeconomic status. The presence of digital inclusion can have a positive impact on the overall level of digital development within Ukraine.

The challenges of inclusive education development in Ukraine highlight the importance of not only ensuring access to education for all students but also fostering their social adaptation in both the physical and digital realms. While progress has been made in providing effective education for diverse student groups within higher institutions, there remain difficulties in facilitating their integration into broader societal contexts, including the digital space.

The modern era's heavy reliance on digital technologies, particularly during the pandemic, underscores the need for inclusive approaches that extend beyond traditional classroom settings. Online platforms play a crucial role in providing barrier-free education and supporting the ongoing development and adaptation of students' identities. These platforms not only facilitate access to educational resources but also offer opportunities for social interaction, collaboration, and team building.

By embracing an inclusive approach to digital education, higher institutions can contribute to the creation of a more equitable and inclusive society where students of diverse backgrounds and abilities are empowered to participate fully in social and economic life. This requires not only technological infrastructure and accessibility but also a commitment to addressing broader societal barriers and promoting a culture of acceptance, understanding, and inclusion.

Addressing digital inclusion in language learning requires concerted efforts to mitigate the barriers that hinder access and participation in digital technologies. This may involve policies and initiatives aimed at improving digital literacy, infrastructure development, affordability, and addressing socio-cultural factors that perpetuate inequalities. Digital inclusion is not only a national concern but also has implications at the global level. Countries

with higher levels of digital inclusion are better positioned to compete and participate in the global digital economy, while those lagging behind risk further marginalization.

The underutilization of online educational resources by forcibly displaced students, students from temporarily occupied territories, refugees, and those from non-urban environments can be attributed to various factors, as highlighted by Witthaus (2018). Many of these students have little to no experience with online learning platforms. This lack of familiarity with digital tools and resources can make it challenging for them to navigate and effectively utilize online educational materials. Even if these students have access to mobile devices, they may not be aware of how these devices can be used for educational purposes. There may be a lack of awareness or training on how to leverage technology for learning, limiting their ability to take advantage of online resources. Classroom teaching is often preferred by these students because it allows for direct communication and social interaction. Face-to-face interaction with teachers and peers can foster a sense of belonging and community, which is particularly important for individuals who have experienced displacement or isolation. In addition to academic learning, traditional classroom settings offer opportunities for students to expand their social networks and strengthen societal bonds. For forcibly displaced individuals, refugees, and those from non-urban environments, these social connections play a crucial role in their integration and adaptation to new environments.

Addressing these barriers requires a multifaceted approach that combines digital literacy training, awareness campaigns, and the development of user-friendly online educational platforms tailored to the needs and preferences of these student populations. Additionally, efforts to bridge the digital divide and improve internet connectivity in non-urban areas can help ensure equitable access to online educational resources for all students, regardless of their background or location.

By acknowledging and addressing the challenges of digital inclusion, societies can work towards harnessing the full potential of digital technologies to promote inclusive and sustainable development for students during language learning.

References:

Witthaus, G. (2018). Findings from a Case Study on Refugees Using MOOCs to (Re)enter Higher Education. Open Praxis, Vol 10, No 4 (2018).

SOME ASPECTS OF TEACHING ENGLISH USING MODERN TECHNOLOGIES

Tyshchenko Mykola, Dibrova Valentyna

Igor Sikorsky Kyiv Polytechnic Institute

Every day we move away from those times when, in order to use information and communication teaching tools, a teacher had to occupy a specially equipped classroom with complex language and computing systems. At the present stage of development of society, we can state the widespread computerization of all spheres of human activity. This fate did not spare the education sector either. Nowadays, no one will be surprised by a personal computer and audio system installed in a foreign language classroom. Moreover, modern higher education institutions offer the use of a projector and smart board. All this modern equipment is designed to maximize the processes of ensuring the quality of education received by students, ensure the integrity of the educational process, and develop not only skills in their field of employment, but also in the field of information technology, which is mandatory these days.

In every higher educational institution in our state we can see the "English for professional communication" programme. Its content is clearly consistent with general professional skills that are necessary for future engineers working in various spheres of human activity. Having studied the works of domestic and foreign authors, we can note that it is necessary to clearly define not only the necessary communication skills of students, but also to predict situations from their professional sphere in which students will be able to realize their language skills. Common professional situations and the skills required for them are given in the table:

Common professional situations	General skills
Personal identification	1. Telephone conversations
	2. Writing emails
	3. Search for new partners
Work environment and daily	1. Writing resumes, cover letters, recommendations
environment	2. Participation in interviews
1. Interview	3. Filling out forms with statements about yourself and the
2. Administrative activities	organization
	4. Preparation of business documentation
	5. Organizing and making adjustments to the course of meetings
	6. Planning next events and tasks
	7. Taking and understanding minutes
	8. Record keeping
	9. Participating in discussions
	10. Reading with a purpose
	11. Presenting and communicating information
	12. Giving and receiving feedback
	13. Answering telephone calls
Relationships with colleagues	1. Discussions on professional topics
and clients	2. Exchange of information on various issues
	3. Handling correspondence (letters, emails)
	4. Answering phone calls

Common professional situations	General skills
Meetings, meetings, business	
lunches, Internet	
communication	
Business travel	1. Requesting information, pre-orders and reservations
1. Travel agency, airport, train	2. Carrying out formalities during travel (for example, going
station, etc.	through customs and passport control)
2. On board a ship, on a train,	3. Filling out forms (for example, Application for a visa)
etc.	4. Finding and knowing how to use information needed during
3. In a hotel, restaurant, bank,	travel (schedules, announcements, Internet pages)
post office	5. Check-in and check-out from the hotel
	6. Processing correspondence and answering phone calls
International conferences,	1. Processing correspondence and answering phone calls
meetings, discussions	2. Preparing events
1. Before the conference,	3. Filling out forms (for example, Applications for participation in
meeting, discussion	a conference)
2. During the conference,	4. Presentations, speeches
meeting, discussion	5. Reading a report
3. After the conference,	6. Participating in discussions
meeting, discussion	7. Keeping minutes of a meeting
	8. Taking notes
	9 Report on the conference, meeting
Contracts and agreements	1. Negotiating agreements
1. Employment	2. Understanding contract clauses
2. Insurance	3. Negotiating contracts
3. Service agreements	4. Handling correspondence and answering telephone calls
4. Partnership	

Unfortunately, we can state that graduates of modern higher educational institutions are not always able to adequately demonstrate the above-mentioned skills in their professional environment. And it's not that they didn't want to gain knowledge to the fullest. Often we can see a situation where an educational institution is fully equipped with modern equipment, but for some reason it is not used for its intended purpose. The main factors in this situation are:

- 1. psychological unpreparedness for the teaching staff of an educational institution to master modern information and communication technologies;
- 2. lack of motivation to do double work, since there is already a huge database of developed material and teachers can convert it into digital form only through their own initiative;
- 3. lack of special training courses where the teaching staff of the educational institution could master modern teaching technologies for further use during their classes.

The above reasons are the main ones, since there are a huge number of other, secondary reasons. Digital technologies of the 21st century shape the landscape of the future of every person, since it is from an early age that a child, coming to school, and later to university,

begins the process of acquiring knowledge with the help of educational information and communication technologies. That is why the speed and quality of the learning process depends on the skill of the teacher, on his level of proficiency in modern educational technologies.

Speaking of less expensive learning tools, we should mention the MOODLE system, which has long been used by teachers around the world. Thanks to a whole department of developers who service the system installed within the walls of the Technical University of Luxembourg, this system is able to start working with the student from the very threshold of the educational institution. Data about the time of visiting the university walls, lectures and practical classes is automatically sent to the server, since the MOODLE system is connected to the university security system. Thus, the teacher does not need to check every time which student is present or absent in class, since this data is already in front of him. The process of teaching a foreign language to students of technical specialties at this university takes place in specially equipped classrooms, in which, in addition to a computer, projector and other standard equipment, there is a special language laboratory system, which is also connected to the MOODLE system. The role of a teacher with this approach to the educational process is more like a mentor, where the student spends most of his time on independent continuous education without reference to a geographic location. Studying other possibilities of this type of teaching mode and methods, it became clear why teachers are no less motivated than students to use this type of educational process.

Summarizing all of the above, it is worth noting that, despite the many disadvantages of using modern educational technologies, the quality indicator of the student learning process depends on the skill of the teacher. Only he can, based on a psychological and pedagogical analysis of the learning process, decide which technologies to select for the specific needs of students for each lesson and how exactly to combine them into a single learning environment.

References

- Elgort, I., Smith, A.G., & Toland, J. (submitted). Is wiki an effective platform for group course work? Frumkin, J. (2015). The wiki and the digital library. OCLC Systems & Services, 21(1), 18-22.
- Kuh, G. D., & Hu, S. (2021). The relationships between computer and information technology use, selected learning and personal development outcomes, and other college experiences. Journal of College Student Development, 42(3), 217-232.
- Morrison, A., & Johnston, B. (2021). Personal creativity for entrepreneurship: Teaching and learning strategies for learning and teaching in higher education. Active Learning in Higher Education, 4(2), 145–158.
- Twigg, C. A. (2023). The impact of the changing economy on four-year institutions of higher education: The importance of the internet. In P. A. Graham & N. G. Stacy (Eds.), The knowledge economy and postsecondary education: Report of a workshop (pp. 77-103). Washington, DC: National Academy Press.
- Watson, D. M. (2021). Pedagogy before technology: Re-thinking the relationship between ICT and teaching. Education and Information Technologies, 6(4), 251-266.

DIGITAL INCLISION IN EDUCATION: CHALLENGES AND BENEFITS

Kateryna Tuliakova

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Alina Medvedchuk

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Maryna Petrenko

Associate Professor, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

Key words: digital technologies, English for ESP, digital inclusion, self-development.

Introduction. In recent decades, digitalization in education has steadily increased. The COVID-19 pandemic highlighted the importance of proper technology resources for teaching and learning. Digital technologies can improve educational equity and inclusion, can enhance learning by providing flexibility in terms of location, timing, and method. According to Directorate for Education and Skills by Organization for Economic Co-operation and Development digital equity and inclusion matters at every level of education, from early childhood, primary, and secondary to higher education. It is also vital for adult education and lifelong learning as society becomes more digitalized (OECD, 2023, p. 7).

The **aim** of this paper is to identify the benefits of Digital Inclusion (DI) in Teaching English for specific purposes.

Discussion. The goal of DI is to reduce digital inequities and improve teaching and learning quality to ensure fair and equitable education (European Commission et al., 2021, p.3) We consider, that without adequate digital abilities, digital technology may not improve student achievements. Digital literacy refers to student's ability to use, comprehend, and produce digital media (Reedy &Parker, 2018, p.213).

To our mind, DI is a part of the overall inclusion. The **Figure 1** below demonstrates this mechanism, where all elements are interconnected: DI is a part of Inclusion, and at the same time it is impossible to imagine DI without Digital technologies for inclusion in education.

Overcoming barriers to participation in digital education based on student differences. This would also entail making certain that digital tools for teaching are created and used in a way that encourages engagement and inclusivity of all students.



Figure 1. *Interconnections of components.*

Thus, Figure 1 helps us to demonstrate the interconnection between inclusion, digital inclusion and digital technologies.

Traditional teaching contains, mainly, explanation and illustration elements. In this case, teacher refers to his/her own experience. Our idea is to implement the model of DI in Education, using collaborative learning, project methods and intercultural communication. Teaching and learning using the project methods, intercultural communication, and public speaking is one of the effective way of implementation DI in Education.

Project method was described as a part of creativity development by Iryna Simkova in IntechOpen (Simkova, Tuliakova & Pastushenko, 2022, p. 148-149). For example, the project method consists of the complexity of questions, problem-based tasks and assignments. We take into account three independent types of tasks: reproductive, cognitive practical, and reproductive search. All participants have equal opportunities, they can work both independently and in pairs or in groups, dividing tasks among themselves, and using digital technologies for their research. Everyone prepares their tasks and presents findings. In this case, digital technologies are tool to achieve the goal. Students have an ability to personal growth, to generate unique and interesting ideas, to communicate, and evaluate each other.

European Commission outlines DI as a way to provide a fair and equitable education. Digital inclusion in education necessitates reducing digital inequities, increasing access, and improving the quality of teaching and learning (European Commission et al, 2021, p. 3).

Despite the numerous challenges to achieving inclusive education such as lack of digital skills, socio-economic backgrounds, the strategic incorporation of digital technologies can support the teaching and learning process. UNESCO has defined inclusive education as "an ongoing process aimed at offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations etc..."(UNESCO,2009, p. 45)

These findings helps us to design the model (Figure 2) that will support DI in educational process.

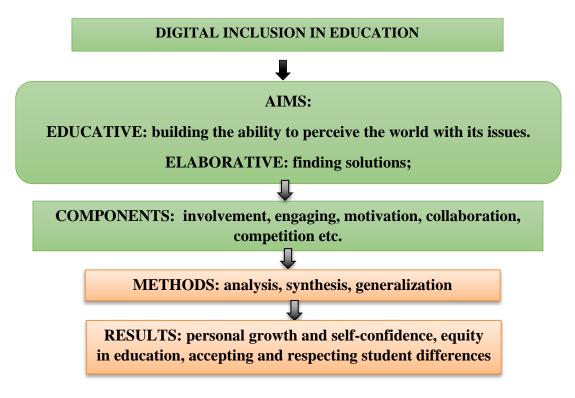


Figure 2. The model of Digital Inclusion in Education

This model might help in organizing classes according to students' needs. We pay essential attention on components. The focus is on the personal growth.

Conclusion. In our paper we have outlined that DI is a way of teaching and learning that manifests itself as a crucial element of educational process. In the future students can easily communicate with other professionals, create their own style of presenting materials. They will be more capable of self-improvement and self-realization in their professional activities.

References:

- Brito, S. M, Fernandes Thmomaz, P.C. (2022). Creativity. Simkova, I., Tuliakova, K., Sergeeva, O., Pastushenko, O. *Perspective Chapter: The Importance of Supporting Creativity Development as the Main Skill of the Twenty-First Century* (pp.137-153). London: IntechOpen, 195 p.
- European Commission, D. et al. (2021), Enhancing learning through digital tools and practices: how digital technology in compulsory education can help promote inclusion: final report. Publications Office. Available at https://data.europa.eu/doi/10.2766/365846
- Reedy, K. and J. Parker (eds.) (2018). Digital Literacy Unpacked. London: Facet. 240 p.
- UNESCO (2009). *Towards Inclusive Education for Children with Disabilities: A Guideline*. Available at http://www.uis.unesco. org/Library/Documents/disabchild09-en.pdf.

TEACHER PROFESSIONAL DEVELOPMENT IN DIGITAL PEDAGOGY

Anastasiia Vashchuk

Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

In today's fast-paced digital world, technology has revolutionized nearly every aspect of our lives, including education. Digital teaching, also known as digital pedagogy or e-learning, refers to the use of digital technology to facilitate teaching and learning processes. Digital teaching aims to enhance student engagement, promote active learning, and provide access to a wealth of educational resources and materials.

This article explores the concept of digital pedagogy, its benefits and challenges, and offers insights into how educators can effectively adapt to this evolving landscape to enhance student learning outcomes.

Digital pedagogy encompasses a broad range of practices that leverage digital technology to facilitate teaching and learning. It goes beyond simply using digital tools in the classroom; it involves rethinking pedagogical approaches to capitalize on the affordances of technology. From interactive whiteboards and multimedia presentations to online collaborative platforms and virtual reality simulations, digital pedagogy offers educators innovative ways to engage students, personalize learning experiences, and foster critical thinking and creativity.

The adoption of digital pedagogy brings forth numerous benefits for educators and students alike. Firstly, digital technology provides access to a wealth of educational resources and materials, breaking down geographical barriers and enabling learning to occur anytime, anywhere. Secondly, digital tools offer interactive and immersive learning experiences that cater to diverse learning styles and preferences, making learning more engaging and effective. Additionally, digital pedagogy promotes collaboration and communication among students, fostering a sense of community and peer learning. Furthermore, digital assessment tools allow educators to monitor student progress in real-time and provide timely feedback, facilitating personalized learning pathways for each student.

Despite its many advantages, adapting to digital pedagogy presents its fair share of challenges for educators. One of the primary concerns is the digital divide, which refers to the gap in access to technology and digital resources among students. Ensuring equitable access to technology and addressing digital literacy gaps are essential steps in promoting inclusivity in digital learning environments. Moreover, navigating the vast array of digital tools and platforms available can be overwhelming for educators, requiring ongoing training and professional development. Additionally, concerns about data privacy, cybersecurity, and online safety must be addressed to create a secure learning environment for students.

To successfully adapt to digital pedagogy, educators can employ several strategies:

- 1. Continuous Professional Development: Engage in ongoing training and professional development opportunities to stay abreast of emerging technologies and pedagogical best practices.
 - 2. Collaborative Learning Communities: Collaborate with fellow educators and share

experiences, resources, and strategies for integrating technology into teaching practices.

- 3. Personalized Learning: Utilize digital tools to create personalized learning experiences tailored to the individual needs and interests of students.
- 4. Digital Citizenship Education: Integrate lessons on digital literacy, online safety, and responsible technology use into the curriculum to empower students to navigate the digital world responsibly.
- 5. Flexible Assessment Strategies: Explore alternative assessment methods, such as e-portfolios, multimedia projects, and peer assessments, to accommodate diverse learning styles and assess student learning effectively.

Empowering teachers for success in digital teaching is crucial for several reasons. Firstly, teachers play a central role in implementing digital technology in the classroom and guiding students in its use. Therefore, their confidence, competence, and proficiency in digital teaching directly impact student learning outcomes. Secondly, empowered teachers are more likely to embrace innovation, experiment with new teaching methods, and adapt to changing educational paradigms. Finally, investing in teacher empowerment fosters a culture of continuous learning and professional growth, which is essential in an ever-evolving digital landscape.

Strategies for Empowering Teachers may include:

- 1. Professional Development: Provide teachers with ongoing training and professional development opportunities to enhance their digital literacy skills and pedagogical knowledge. Offer workshops, seminars, webinars, and online courses on topics such as digital tools, online teaching strategies, and blended learning models.
- 2. Collaborative Learning Communities: Foster collaboration among educators by creating professional learning communities where teachers can share experiences, resources, and best practices related to digital teaching. Encourage peer mentoring and collaborative lesson planning to support collective growth and innovation.
- 3. Access to Resources and Support: Ensure that teachers have access to a wide range of digital resources, tools, and support services to facilitate their transition to digital teaching. Provide technical assistance, instructional design support, and access to educational technology platforms and software.
- 4. Personalized Learning: Recognize that teachers have different levels of digital proficiency and learning styles. Offer personalized learning pathways tailored to individual needs and interests, allowing teachers to progress at their own pace and focus on areas of professional growth relevant to their teaching context.
- 5. Recognition and Incentives: Acknowledge and celebrate the achievements of teachers who demonstrate excellence in digital teaching. Provide incentives such as awards, grants, and opportunities for professional advancement to motivate and inspire educators to strive for continuous improvement.

Empowering teachers for success in digital teaching is essential in ensuring that educators are equipped with the knowledge, skills, and confidence to navigate the complexities of the digital age. By investing in teacher empowerment through professional development,

collaborative learning communities, access to resources and support, personalized learning, and recognition and incentives, we can create a dynamic and inclusive learning environment where educators thrive and students excel. Together, let us empower teachers to harness the transformative power of digital technology and inspire the next generation of learners to reach their full potential in an increasingly digital world.

It is also crucial to foster inclusive practices in digital teaching. Inclusive practices in digital teaching involve creating learning environments that accommodate the diverse needs, backgrounds, and abilities of all students. It goes beyond simply providing access to digital technology; it requires educators to consider factors such as cultural diversity, language proficiency, learning styles, and disabilities when designing and delivering digital learning experiences. Inclusive digital teaching aims to ensure that every student feels valued, supported, and empowered to succeed in their learning journey.

Fostering inclusive practices in digital teaching yields numerous benefits for students, educators, and the education system as a whole. Firstly, it promotes academic achievement and student engagement by creating learning environments where all students feel valued and supported. Secondly, it prepares students to thrive in a diverse and interconnected world by promoting empathy, cultural competence, and collaboration. Finally, it enhances teaching effectiveness and satisfaction by empowering educators to meet the needs of all students and create meaningful learning experiences.

In conclusion, the significance of teacher professional development in digital pedagogy cannot be overstated in today's educational landscape. As classrooms continue to evolve with the integration of digital technology, it is imperative that educators are equipped with the knowledge, skills, and confidence to navigate this digital transformation effectively. Professional development opportunities provide educators with the tools and strategies needed to leverage digital technology to enhance teaching and learning experiences, ultimately benefiting students' academic achievement and engagement. By investing in teacher professional development in digital pedagogy, educational institutions can cultivate a culture of innovation, collaboration, and continuous improvement. Empowered educators are better prepared to meet the diverse needs of students, promote inclusivity and accessibility in digital learning environments, and foster critical thinking, creativity, and digital literacy skills among their students.

Furthermore, teacher professional development in digital pedagogy not only benefits individual educators but also contributes to the advancement of the education system as a whole. By nurturing a community of digitally fluent educators, educational institutions can stay at the forefront of educational innovation, adapt to emerging technologies and pedagogical trends, and prepare students for success in the digital age. In embracing the importance of teacher professional development in digital pedagogy, we acknowledge the pivotal role that educators play in shaping the future of education. By supporting educators in their journey towards digital fluency, we can create dynamic and inclusive learning environments where every student has the opportunity to thrive and succeed.

References:

- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. Journal of Research on Technology in Education, 42(3), 255-284.
- Guskey, T. R. (2002). Professional development and teacher change. Teachers and teaching: Theory and practice, 8(3), 381-391.
- Kimmons, R., & Veletsianos, G. (2018). Public internet data mining methods in educational technology journals. Educational Technology Research and Development, 66(2), 295-315.
- Smith, S. L., & Clark, T. (2010). Faculty development in technology-enhanced education: A case study. Teaching and Teacher Education, 26(4), 700-708.

EMERGING TRENDS AND INNOVATIONS IN EDUCATION

Alla Vlasiuk

English teacher, Kyiv Igor Sikorsky Kyiv Polytechnic Institute

Introduction. Nowadays the world is changed and every day we have something new, new trends in education, technologies, in our everyday life. What trends will affect our life in the future? One of them is AI (Artificial intelligence), nanotechnologies, biometrics and etc.

Artificial intelligence (AI) – is the science of making intelligent machines and programs. The term originated in the 1940s, when Alan Turing said: "A machine has artificial intelligence when there is no difference between the conversation generated by the machine and that of an intelligent person". In recent years Education has progress and development thanks to the integration of Artificial Intelligence (AI). Artificial Intelligence is not merely a trend, it's a revolution in education. One of the most significant advantages of AI in education is its ability to provide personalized learning experiences. AI-powered educational tools can adapt to each student's needs, offering special content and exercises. Generative AI tools have been trained using datasets from the internet, enabling them to produce text that resembles human-generated content. The range of generative AI tools is expanding rapidly, with applications in areas like presentations, article summarization and image generation. These tools can serve as personal tutors, collaboration coaches, study buddies, providing learners with individualized support, facilitating group work assisting in comprehension and enabling data exploration.

Furthermore, AI tools in education extend beyond generative AI, encompassing chatbots and artificial assistants that can enhance language learning, provide personalized guidance and support cognitive processes.

In the context of language learning, artificial assistants offer a range of benefits. They can offer direct help, including instruction, guidance, and recommendations. They can also provide sustained help, enabling students to rehearse what they have learned and develop good language-learning habits, such as frequent practice. They can direct the student's attention to certain aspects of a language, learn material they would not be able to take on unaided, or provide opportunities for spaced repetition to help students remember new vocabulary and grammar.

Artificial assistants can also motivate students, monitor progress, help with scheduling, and take on roles such as interpreter or translation aid.

The **subject** of the research is to explore the latest trends in technologies and language education.

The **aim** of the research is to show the influence of innovations and AI tools in education. Together they have the potential to change education practices, to support learning, but they also prompting changes in the ways in which learning is assessed. Another example of AI tools in education is Multimodal pedagogy.

Multimodal pedagogy is an approach to teaching that focuses on using different modes of communication such as words, images, sounds and gestures to facilitate learning. Multimodal literacy is an important part of this approach as it involves an awareness of the

possibilities and different modes of communication, how they can work together to produce meaning how modes are distributed and how meaning is communicated.

Multimodal approach to pedagogy can help prepare students for workplace communication and enable different ways of knowing. It can also improve accessibility, inclusivity, engagement, comprehension and the retention of knowledge. Challenges of adopting this pedagogy include the need for digital skills, the possibility of distraction, and the need for different assessment methods.

The next innovation in education which is coast our attention is Podcasts. **Podcasts** are audio episodes that focus on a specific theme or topic and can be accessed for free online. The use of podcasts in education has been growing over the past few years, and they can be used in two main ways- podcast curation and podcast creation. The use of podcasts in education have many advantages, including flexibility, control how the podcast is listened to by students, inclusivity, informality which may appeal to learners and delivery of up-to-date content. Using narrative podcast can develop critical thinking. The creation of content for podcasts is becoming more widespread. Educators have the process of producing podcasts as an opportunity to discuss core subject ideas in a more informal way and develop their own communication skills. Podcasts can be used for a variety of purposes in education, such as recording interviews and field trips, as well as assessment tasks involving reflection.

Technology is a powerful tool that can transform education and introduce new ways of learning.

Virtual Reality (VR) in education. This innovation are giving classrooms a new look and have changed the ways in which lessons are conducted. With VR, students can learn via interacting with a 3D world. Google has been on the forefront of introducing experiential learning in schools through VR technology. Users can come together in a virtual world to collaborate and conduct any kind of permitted activity.

Biometrics. The introduction of biometric systems has helped to streamline the education and enhance discipline. Facial recognition, fingerprints, voice recognition, and eye tracking are some of the biometric methods that have implemented to streamline their operations.

Apart from being used to monitor a student's class attendance, they are used when borrowing books in the library. Teachers use eye tracking methods to monitor how students are absorbing content that they have been taught.

Widespread access to the Internet is one factor that has accelerated the implementation of technological innovations in the education sector. Ideas spread fast and people can research the best methods for using technology in education. Hardware companies are producing devices such as laptops and tablets which are customized to meet specific education needs.

The study which helps to recognize the intricate relationship between technology, pedagogy and the learning environment is Entangled pedagogy. **Entangled pedagogies** focus on understanding how technology and pedagogy are interconnected and influence one another. It is a useful concept, where teachers select tools, design activities and manage the learning process to guide students effectively. Entangled pedagogies present challenges such as workload and institutional constraints, but they can lead to inclusive and innovative learning environments. It encourages educators to consider the purposes and contexts of learning and how they are shaped by the entanglement of learning spaces, pedagogy and technology.

In **conclusion**, all this innovations are very important in education. AI is not a replacement for educators but rather a powerful tool that, when used thoughtfully can enhance the learning journey. The future of education are exciting, and AI is the forefront of this educational revolution.

Artificial intelligence (AI) is revolutionizing education by providing personalized learning, improving access, and preparing students for the future. It's not just changing how we learn, but also what it means to be educated in today's world.

References:

Kukulska-Hulme, A. (2021). Conclusions: A lifelong Perspective on Mobile Language learning. In: Morgana, Valentina and Kukulska-Hulme, Agnes eds. Mobile Assisted Language Learning across Educational Contexts. Routledge, p.122-123

The Open University (2023). Open Social challenges. Available online:

https://www.open.ac.uk/research/faculties-themes (Accessed 19/5/23).

UNESCO (2023). UNESCO and Sustainable Development Goals. Available online: http://en.unesco.org/sustainabledevelopmentgoals (Accessed 19/5/23).

POTENTIAL CHALLENGES IN USING DIGITAL TECHNOLOGY IN ENGLISH LANGUAGE TEACHING

Iryna Zhukevych

Professor Assistant, Lecturer, Department of English Language for Humanities, Igor Sikorsky Kyiv Polytechnic Institute

The use of digital technologies in English language teaching (ELT) is becoming increasingly widespread. This has various advantages, including making learning more accessible and flexible, as well as enabling personalisation and collaboration. Digital technology is now an integral part of our lives and offers numerous benefits and opportunities. However, along with these advantages, there are also potential challenges that come with using digital technology (Olleros & Zhegu, 2016). These challenges can affect many aspects of our lives, such as health, education, work, and society as a whole.

One of the possible challenges when using digital technology is the issue of equitability. Not everyone has equal access to digital technology, which can worsen existing social inequalities. According to some foreign scientists (Arends, S. A., & Kuhlhaus, M., 2020), the use of digital technology can be seen as an indicator of socio-economic status and a facilitator for better outcomes. This means that people who do not have access to digital technology may face obstacles to receiving necessary information and services, leading to further disparities in outcomes. Another challenge is digital literacy. Not everyone has the skills and knowledge needed to use digital technology effectively. This can create a digital divide, where certain individuals or groups are left behind and unable to fully participate in the digital world.

However, there are also other potential challenges associated with using digital technologies in ELT that teachers and course developers need to consider.

- 1. Digital divide. One of the key challenges is the digital divide that can exist between students who have access to technology and the skills to use it effectively, and those who do not. In an ELT classroom, this can put certain students at a disadvantage if they lack devices, internet connection, or basic digital literacy. As a result, these students may struggle to keep up with coursework that heavily relies on online resources and tools (Arends & Kuhlhaus, 2020).
- 2. Information overload. The vast amount of information available online can be overwhelming for students. They may find themselves lost in a sea of irrelevant content, which hinders their ability to focus on essential learning materials and can lead to information fatigue.
- 3. Reduced personal communication. While digital tools can facilitate communication, they can also decrease face-to-face interaction. This poses a challenge for ELT students who require opportunities to practice spoken English and develop communication skills beyond typing.
- 4. Plagiarism. The ease of copying and pasting online content has made plagiarism a significant concern in the digital age. Students may be tempted to plagiarize readily available materials, resulting in academic dishonesty and hindering their own learning process. Teachers must implement measures such as plagiarism detection tools and emphasize the importance of citing sources.

- 5. Technical problems. Technical glitches are inevitable when using technology in the classroom. These issues can disrupt lessons, cause frustration for both students and teachers, and waste valuable learning time. Having backup plans and troubleshooting skills are crucial to minimize the impact of technical problems.
- 6. Imperfect tools. Not all digital tools are equally effective or suitable for ELT. Some tools may be poorly designed, lack user-friendliness, or fail to meet the specific needs of language learners. Teachers need to carefully evaluate and select tools that are appropriate for their students' language level and learning objectives.
- 7. Teacher Training. Effectively integrating technology into teaching requires teachers to have a strong understanding of how to use the chosen tools and how to incorporate them into their lesson plans. Additional training opportunities may be necessary to equip teachers with the required skills and knowledge.
- 8. Cost. Digital technology can be expensive, both for educational institutions that need to invest in equipment and software, and for students who may need to purchase devices or internet access. This can present a barrier to implementing technology in ELT, particularly in under-resourced institutions.
- 9. Cultural considerations. Cultural sensitivity is crucial when using digital tools in ELT classrooms. Certain tools, visuals, or topics may be inappropriate or offensive in specific cultures. Educators need to be mindful of these differences and select culturally appropriate resources.
- 10. Ethical considerations. The use of digital technologies raises ethical concerns, including issues of student privacy, data security, and responsible use of student information. Clear policies and practices must be established to address these concerns and ensure the ethical use of technology in the learning environment (Kukulska-Hulme, A. & Viberg, O., 2017).

Digital technologies have the potential to greatly enhance English language teaching, leading to improved learning outcomes, increased engagement and effectiveness, and new opportunities for communication and collaboration. However, there are also challenges that need to be considered in order to fully realise these benefits. Teachers and course developers should be mindful of these challenges and take appropriate measures to overcome them. By recognizing these challenges and taking steps to address them, teachers can fully leverage the potential of digital technologies to create engaging and effective learning experiences for their English language students. These challenges can hinder the smooth integration of digital technology in English language teaching and may require institutions to invest in infrastructure, training, and support systems.

References:

- Olleros, F. Xavier and Zhegu, Majlinda, Digital Transformations: An Introduction (2016). F. Xavier Olleros and Majlinda Zhegu (eds.) Research Handbook on Digital Transformations, Cheltenham, UK: Edward Elgar, 1-19.
- Arends, S. A., & Kuhlhaus, M. (2020). The impact of digital technologies on language learning and teaching. TESOL Quarterly, 54(4), 747-77.
- Kukulska-Hulme, A. & Viberg, O. (2017). Mobile collaborative language learning: State of the art. British Journal of Educational Technology, 49.

CONTENTS	
ASSESSMENT AND EVALUTAION IN E-LEARNING	3
NATALIA BIRIUKOVA	
ROLE OF DIGITAL TECHNOLOGIES FOR INCLUSION, ACCESSIBILITY AND EQUITY IN HIGHER EDUCATION	6
OLEKSANDRA BONDARENKO, POLINA HAIEVA	
THE EVOLVING ROLE OF DIGITAL PLATFORMS IN ENGLISH LANGUAGE EDUCATION FOR LAW STUDENTS: ADDRESSING MODERN CHALLENGES	9
Inna Borkovska, Svitlana Volkova	
PROBLEMS IN IMPLEMENTING DIGITAL STRATEGIES IN ENGLISH LANGUAGE TEACHING	12
IRYNA BOYKO	
EXPANDING CAPABILITIES OF KAHOOT! WITH THE HELP OF AI NATALIA CHIZHOVA, INNA ANTONENKO	14
IVATALITA CITIZITOVA, INNA INTONENKO	
DIGITAL LITERACY IN ENGLISH LANGUAGE TEACHING	16
NATALIIA DUKHANINA, OLHA HRABAR	
LEVERAGING COCALC IOS FOR INCLUSIVE EDUCATION: STRATEGIES AND TOOLS IN HIGHER EDUCATION ASSESSMENTS	19
Yulia Haidenko, Oksana Serheieva	
DIGITAL TECHNOLOGIES IN ESP CLASSES: ADAPTATION OF VIDEO TASKS TO THE EDUCATIONAL PROCESS	23
HANNA KOLOSOVA	
INCLUSIVE EDUCATION: SELECTING LMS FOR DIGITAL EQUITY	26
YULIIA KORNYTSKA	
DEVELOPING DIGITAL FLUENCY IN UNIVERSITY STUDENTS IRYNA KOZUBSKA, NATALIIA KOMPANETS	29
ANALISA AND DOMAN I TITALIAN AND TALIBAD	
TERMINOLOGICAL COMPETENCE IN ESP FROM BILINGUAL PERSPECTIVE BASED ON DIGITAL INCLUSION	32
OLENA KURCHENKO	

BLENDED LEARNING IN ENGLISH LANGUAGE TEACHING FOR SPECIAL PURPOSES	35
MARIIA LEVISHCHENKO, OLHA SHUM	
DIGITAL LITERACY FOR ONLINE EDUCATION	38
IRYNA OMELCHENKO	
DIGITAL INCLUSION IN TEACHING ENGLISH AS A FOREIGN LANGUAGE	41
OLENA SHEPELEVA, OLENA MUKHANOVA	41
WAYS TO IMPROVE ENGLISH SKILLS FOR NON-NATIVE PROGRAMMERS	43
OLGA SHEVCHENKO, OLEG SHMULIAR	
THE JOURNEY TO ENGAGEMENT: UNLOCKING THE POTENTIAL OF INTERACTIVE ONLINE TOOLS	45
T. S. SHUMSKA	
CHALLENGES OF DIGITAL INCLUSION FOR EDUCATION IN UKRAINE	48
Iryna Simkova, Svitlana Starikova	
SOME ASPECTS OF TEACHING ENGLISH USING MODERN TECHNOLOGIES	50
MYKOLA TYSHCHENKO, VALENTYNA DIBROVA	30
DIGITAL INCLISION IN EDUCATION: CHALLENGES AND BENEFITS	53
KATERYNA TULIAKOVA, ALINA MEDVEDCHUK, MARYNA PETRENKO	
TEACHER PROFESSIONAL DEVELOPMENT IN DIGITAL PEDAGOGY	56
ANASTASIIA VASHCHUK	
EMERGING TRENDS AND INNOVATIONS IN EDUCATION	60
ALLA VLASIUK	
POTENTIAL CHALLENGES IN USING DIGITAL TECHNOLOGY IN ENGLISH LANGUAGE TEACHING	63
IRYNA ZHUKEVYCH	