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Qualifying paper

IMPLEMENTATION OF MOBILE APPLICATIONS & WEBSITES IN THE EFL CLASSROOM

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LIST OF ABBREVIATIONS

AI – Artificial Intelligence
AR – Augmented Reality
CALL – Computer-Assisted Language Learning
EFL – English as a Foreign Language
FSI – Language courses developed by the United States Foreign Service Institute
ICT – Information and Communication Technology
IT – Information Technology
LMS – Learning Management Systems
MALL – Mobile-Assisted Language Learning
NLP – Natural Language Processing
OERs – Open Educational Resources
OS – Respondents of the other 15 specialties
RALL – Robot-Assisted Language Learning
SELL – English Language and Literature students
TPR – Total Physical Response
UML – Unified Modeling Language
VR – Virtual Reality

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INTRODUCTION

Now, digital technologies in modern education are playing an important role in schools, lyceums, and universities, including Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. This is why there is a growing need to integrate mobile applications and websites into professional training. Information technology is a system of methods and ways of collecting, accumulating, transmitting, processing, storing, searching, analysing, protecting and providing the necessary information to all interested parties through the use of hardware and software.

The relevance of this topic is determined by the lack of theoretical development of methodology, organisation of digital development in the educational system, the needs of practice, and its meaning. Modern information systems make it possible to automate educational processes, reducing the risk of errors and improving the efficiency and quality of English language teaching in classrooms.

The purpose of the study is to investigate the theoretical & methodological foundations, practical aspects of using information systems, technologies for learning English in classrooms, as well as to develop recommendations for their improvement to improve the efficiency and quality of the educational process.

To achieve this purpose, a number of **tasks** need to be solved:

- analysis the theoretical aspects, bases of using digital technologies in language education;
- analysis of modern mobile applications & websites for language learning;
- defining functional requirements for educational digital tools;
- creating methodological recommendations for integrating technology into the learning process.

The object of the qualification work is the pedagogical potential of mobile technologies and digital resources in the context of intensifying the educational process for the formation of language, speech, socio-cultural competence of students (mobile applications, websites). The object of the qualification work covers methodological and practical aspects of integrating these technologies into professional training.

The subject of the qualification work is the methodological & the practical aspects of integrating mobile applications, websites into professional training.

As for **the methodology**, the qualification paper considers information support, methodological approaches to analysing the effectiveness of English language learning, and uses special methods (statistical groupings, publication research, generalisation, and effectiveness analysis). The paper uses a systematic approach to the analysis of information technologies in an educational institution, and applies general scientific methods of cognition (observation, comparison, survey, analysis, synthesis to study existing software solutions and their impact on the quality of learning).

The analysis of the research results of well-known authors on information applications and websites in

the educational process of learning English points to the importance of integrating modern information technologies into the processes of quality learning.

The scientific novelty of the investigation lies in a comprehensive analysis of the interaction of mobile applications with web platforms (Google Classroom, specialised professional websites – for organising hybrid learning that combines classroom and distance learning), practical integration of mobile applications and web resources into the ESP teaching and learning process, which is characterised by the adaptation of NLP (natural language processing) technologies, personalised approaches to creating mobile applications that adapt to the individual needs of students, in particular in professional content. The criteria for selecting applications and web resources, with a focus on competence and types of students' speech activities, have been systematized or the first time, a gap in existing research has been filled, and its effectiveness has been experimentally tested.

The practical value of the qualification work lies in the possibility of using the proposed areas of optimisation of the educational structure in order to improve the efficiency of the educational process. Based on the results obtained, it is possible to improve the quality and feasibility of information technology implementation. The results of the study can be used to improve the implementation of mobile applications, websites in classrooms, which will increase the level of knowledge, skills, abilities of students and the timeliness of assessing the quality of education, as well as ensure more effective implementation of digital technologies.

The scope and structure of the study. The qualification work (volume – 77 pages, 10 tables, 14 diagrams) consists of an introduction, three chapters, conclusions, a list of references (contains 62 sources) and 2 appendices.

Approbation of the work. The main provisions of the study were discussed at 4 international conferences: VIII International Student Scientific Conference "Globalization of Scientific Knowledge: International Cooperation and Integration of Science Branches" (Uzhhorod, May 9, 2025), VI International Student Scientific Conference "Modern Aspects and Perspective Directions of Science Development" (Kharkiv, January 19, 2024).), "XVIII Kárpátaljai Tudományos Diákköri Konferencia" (Berehove, May 17, 2024), International Scientific and Practical Conference "Actual Problems of Pedagogical Education Development: Innovations, Challenges, Prospects" (Mukachevo, March 15, 2024).

Publications. The main provisions and results of the bachelor's work are highlighted in 3 abstracts ("The use of mobile applications and websites in the ESP classroom", 2025; "The Importance of Using Games in the Process & Recommendations", 2024; "The advantages and disadvantages of implementing innovative technologies", 2024). "Advantages and Disadvantages of Implementing Innovative Online Courses, Mobile Applications, Video Conferencing in Online and Offline English Language Classes", 2024), which are included in conference proceedings, and one article has been submitted for publication ("Pros and Cons of Implementing Innovative Online Courses, Mobile Applications, Video Conferencing in Online and Offline English Language Classes at the Ferenc Rakoczi II Transcarpathian Hungarian College of Higher Education", 2024). The total

number of additional publications on digital sites related to English language learning is 14 on Vseosvita, 5 on Wordwall.

The results of the study are also the basis for the 1st presentation (tested at the methodological courses of English teachers for Hungarian-speaking schools in Transcarpathia "Kárpátaljai Nyári Kölcsey Pedagógusakadémia" - dated 06.08.2024).

In the theoretical part of the paper, the scientific approaches to defining the essence of the concepts of 'mobile application' and 'website' are considered. The classification of application types and the evolution of websites in the educational context are described. The system of asset management as a factor of effective development of an enterprise is studied. *In the second part of the paper*, the methods of integrating mobile applications and websites into the educational process and the effectiveness of their use are reviewed. The functions are defined, and examples of lessons using mobile applications and websites are given. *In the third part of the paper*, by assessing the advantages, disadvantages of these technologies, recommendations for their optimal use are formulated, and the results of a survey among students of our institute are analysed.

PART 1
THEORETICAL FOUNDATIONS OF DIGITAL TECHNOLOGIES IN LANGUAGE EDUCATION

The first part of the thesis investigates the theoretical bases of digital technologies employed in language education. It is analyzed how mobile applications and websites used for educational purposes have developed from initial computer-assisted language learning (CALL) systems to contemporary AI-based tools. Different types of applications (native, hybrid and web-based) are discussed, as well as their advantages and disadvantages for language learning. The psychological and educational aspects of technology implementation are examined in the section by investigating how student motivation is boosted by interactive features and how learning content is organized for professional use. The analysis of existing digital language learning platforms is conducted through a comparison of apps such as Duolingo and Lingua.ly and an evaluation of website functions, including Quizlet and BBC Learning English.

1.1 Evolution of mobile apps and websites in the educational context

Novikova analyses the foreign experience of developing mobile applications in the educational environment: “The current trajectory of mobile devices suggests that there are favourable conditions for the effective integration of mobile gadgets at different stages of the educational journey for students of different specialities. ...Mobile applications serve as a bridge between traditional teaching methods and modern technologies, facilitating a smooth transition and improving the overall educational experience.” (Novikova, 2023). ‘Thanks to interactive features (of mobile apps − *VN*), students can actively participate in the learning process by exploring virtual simulations, conducting virtual experiments and solving interactive puzzles.’ (ibid, p. 20). Thanks to the right mobile apps, you can adapt your foreign language learning to your preferences, learning style, and schedule.

The visually appealing, intuitive, functional, and easy-to-remember applications mobile applications (with labels, descriptions, menus, tooltips, the successful integration of the principles of composition, colours, multimedia elements in design) are widespread in meeting the needs of users for education, entertainment, communication, and productivity in the modern digital landscape.

It's worth paying attention to the comparison made in a scientific publication about a brief history of mobile apps: “In the first three months of 2021, the Google Play Store offered 3.48 million apps and Apple’s App Store housed 2.22 million available apps for iOS.6 When the ease of creating is coupled with the potential return

on investment, either in usefulness or revenue, apps are as useful to creators as they are to users." (based on data provided by the site administrator of Capitol Technology University, 2021).

According to the researcher Kurukshetra (2025), the latest trends shaping the future of mobile app development are: cross-platform (tools *React Native, Flutter* are helping modern developers save money, time), AI in everyday apps (chatbots, personalized suggestions, small businesses), the voice talking with phones, Faster streaming, live events, gaming thanks to faster 5G internet speeds, establishing the trust of users who are interested in secure and clear applications (as for privacy) popularised by app stores, using of smarter apps wearables (fitness bands, smartwatches) for messaging, health, payments, the virtual augmented reality (AR) for useful & real ne eds, super apps can do all services (chatting, shopping, payments) into one place, simplification of design, interface, and functions for learning a foreign language and beyond (converting voice control into text-to-speech) for users with disabilities, the app performance (avoiding inaccuracies and errors) (ibid, 2025). The above mentioned researcher is absolutely right, affirming: "Fancy features mean nothing if your app is slow. Speed, smooth loading, and fewer bugs still make the biggest difference to users. Always..." (ibid, 2025). The simpler the functionality and the more content a mobile application has (not only at Key Software Services, where there is an opportunity to create mobile apps), the more opportunities there are for users of all ages to use it, and the easier it is for the older generation to learn.

Gamification is a monetisation strategy connected with ownership of digital assets, gaming apps for trading: "By gamifying apps, developers can create compelling user experiences that increase user motivation and engagement. With its proven effectiveness, gamification is a trend that will continue to dominate app development..." (Lotarev, 2025).

Konoplianyk (2021) writes: such applications as *Quizlet* or *Memrise* are offered to study professional terminology; *Google Forms, Kahoot, Edpuzzle, Liveworksheets, Quizizz, Nearpod, Wizerme, Classmaker, LearningApps* – to check students' comprehension of the text, audio, video, grammar material; *EnglishCentral, YouGlish, SpellUp* have proved to be useful for phonetic practice; *FlipGrid, Voice Thread, Voice Spice, Voki, Speak and Improve* – for speaking; *Blogger, Write and improve* – for writing. Such online resources as *TED talks, Science News for Students, ThoughtCo, Newsela, BBC Learning English*, containing authentic videos, articles and other educational materials on various professional topics with ready-made assignments can be used by ESP teachers for developing students' skills in all types of activities (reading, listening, writing, speaking) (ibid, 2021).

Since English is a language of international communication which is essential for a successful career and personal development, its learning (traditional and innovative) is one of the most important tasks of education in the modern world. Innovative information technologies (IT) are focused on significantly improving the effectiveness of teaching English, making learning more interesting, interactive, and efficient, unlike traditional teaching methods (learning grammar and vocabulary). This is the reason for the relevance of the topic of innovative information technologies for teaching English at Ferenc Rákóczi II Transcarpathian Hungarian

College of Higher Education.

1.1.1 Historical development of digital tools for language learning

The historical progression from early CALL systems to AI-powered tools highlights how technology continues to reshape language learning methodologies (Rudolph, Tan, (2023), Valchanov (2024), Rajput (2015)). Stephen emphasized that technology becomes fully integrated into education when it is "invisible" or normalized within daily practices (Stephen, 2022). This progression is connected with mobile apps and websites.

Mobile applications are tools for individualised learning, organising distance learning, and creating interactive educational content.

Websites are platforms for accessing multimedia resources, educational materials, and organising group work. Mobile applications are classified by function (tests, virtual tours, dictionaries). Web resources are used for listening, grammar practice & cultural context. It is important to investigate the development of digital competences of teachers in creating educational content. The topical issue of classification of mobile technologies and digital resources has been of interest to domestic and foreign scholars, who are still discussing. The essence, advantages, disadvantages, and effectiveness have been studied by scientists such as: Henzel (2017), Luntovskyi (2018), Klymash (2018), Morska (2008), Moskalenko (2023), Natrusnyi (2024), Novikova (2023), Lotarev (2025), Miller (2024), Piavka (2021), Punya (2024), Stephen (2011), Fodor (2023), etc. Now, many bloggers popularize English learning platforms, best free language learning websites to boost studies: Gupta (2024), Quaresma (2023), etc. Many reviews of useful, great, amazing, free apps to practice English, ESL Teaching are on videos created by i-Speak English (2024), Novakid Evening Show (2022), Etakude English Teachers (2023), Real Life English (2024). The evolution of digital tools for language learning has been shaped by: 1) advancements in technology, 2) pedagogical theories, and 3) the changing needs of learners. There are many stages of the historical development of digital tools for language learning highlighted by Cheryl (2018):

1. Computer-Assisted Language Learning (CALL: Behaviorist Phase (1960s–1970s); Communicative Phase (1980s–1990s; tools like *Storyboard* encouraged contextualized learning; gamification began to appear in language learning with games such as *"Where in the World is Carmen San Diego?"*); Integrative Phase (21st Century; intelligent tutoring systems, electronic dictionaries, and network-based social computing)); 2. Mobile-Assisted Language Learning (MALL; smartphones and tablets; facilitated telecollaboration; apps like *Duolingo* and *Babbel* utilize gamification); 3. Robot-Assisted Language Learning (RALL; AI-powered robots motivate learners, particularly children, in foreign language contexts from 2004). Artificial Intelligence Platforms revolutionized language learning with tools like *ChatGPT, Google's BERT* (Bidirectional Encoder Representations from Transformers), which is a language model introduced by *Google AI* in 2018, is based on a neural network model designed for natural language processing (NLP)) (Cheryl, 2018). Key trends are:

gamification, telecollaboration **(**since the 1990s**)**, normalisation (Stephen (2011)).

1.1.2 Classification of application types (native, hybrid, web-based)

The classification of application types relates to how applications are developed, deployed, and interact with devices. Native apps are built specifically for a particular platform (e.g., iOS or Android) using platform-specific programming languages such as *Swift* (iOS) or *Kotlin* (Android). Web apps run in web browsers and are built using standard web technologies like HTML, CSS, and JavaScript. Hybrid apps combine elements of both native and web apps. They are built using web technologies but run within a native container (e.g., WebView) or are compiled into native code.

Native App is platform-specific (for development language), with high performance, full device feature access, generally available offline access, platform-specific compatibility, and dependent on browser speed, ***Web App*** is connected with *HTML, CSS, JavaScript*, is limited in device feature access, offline access, but is universal in compatibility, and a moderate ***Hybrid App*** with broad tweaks combines both, often available in offline access.

Among new trends, there are ***Progressive Web Apps*** which combine the capabilities of web, native applications, offering offline access, device integration, being a browser-based platform, and multifunctional platforms (Cross-platform frameworks) bridge the gap between traditional, hybrid development by providing near-native performance through shared codebases (Flutter; React Native).

1.2 Psychological and pedagogical aspects of technology implementation

This part is examined for the impact of technology integration in education on teaching methods and students' psychological reactions, and for the influence of interactive tools (gamification, immersive technologies, and practical exercises) on increasing students' motivation and interest in learning. It also considers ways to structure learning content by the professional environment. The advantages of these technologies, such as improved learning outcomes and increased student engagement, and potential disadvantages (the risk that the 'wow factor' will eventually disappear as the novelty wears off) are discussed, although the limited scope for writing this type of research paper prevents us from comprehensively covering the benefits of information technologies adapted for students with inclusive learning, which is also relevant, and the challenges of today's interaction.

1.2.1 Influence of interactive elements on students' motivation

Interactive elements in education, such as *gamification, immersive technologies* (augmented reality (AR) and virtual reality (VR)), *experiential learning*, where students have a choice about how to demonstrate their

knowledge through digital presentations, creative works that meet their interests, and at the same time increase intrinsic motivation, can significantly affect motivation and achieve the desired level of student engagement. Platforms like Kahoot! can help teachers increase motivation because they have competitive systems. It should be borne in mind that over time, not only higher education students can lose motivation, as novelty is rapidly replaced by other innovations or there is an over-reliance on external rewards.

1.2.2 Peculiarities of organising educational content for professional purposes

The information in the table below is a summary of current research, practices in the field of digital education, in particular with a focus on LMS and related digital tools, presented by researchers through relevant sources: Cheryl (2018), Stephen (2011), Valchanov (2024), Yasynska *(2023)*. By carefully selecting relevant materials and employing effective organizational strategies, educators can create impactful content that meets professional learners' needs while fostering engagement, retention (*see* **Table 1.2.2.1**).

Table 1.2.2.1

Peculiarities of organizing educational content for professional purposes

№	The title of the organizing educational content	The purpose
1	**2**	**3**
1	Alignment with Learning Objectives (OERs)	● involves selecting material that supports professional competencies and skills; ● allows customization to meet specific professional needs, saving time and ensuring adaptability.
2	Structuring Content	● The content is presented step-by-step (e.g., medical training or technical troubleshooting), is advanced to more complex topics, and to higher-level competencies; ● IT troubleshooting courses; ● Thematic relationships help navigate broad topics effectively (e.g., leadership modules like "Conflict Resolution" or "Team Development").
3	Professional Context	● Organize material by relevance to workplace scenarios, such as policies, procedures, or industry standards
4	Incorporating Technology	● using digital tools like blogs, wikis, and e-portfolios, learning management systems (LMS) such as Moodle or Blackboard.
5	Interactive Learning	● topics at increasing levels of complexity over time (a spiral approach)
6	Diversity and Inclusion	● representing varied perspectives; ● incorporating inclusive content.

(summarised by the author based on the resource: http://pedagogy-journal.kpu.zp.ua/archive/2023/90/29.pdf)

1.3 Analysis of existing solutions

In this section, existing language learning technologies are examined. The effectiveness and limitations of apps such as *Duolingo* and *Lingua.ly* are reviewed, and the functionalities of websites like *Quizlet* and *BBC Learning English* are compared in practice. The ways in which these digital tools facilitate language acquisition through various educational approaches are explored, with an emphasis placed on the finding that optimal outcomes are achieved through the integration of technology with traditional teaching methods rather than through exclusive reliance on applications.

1.3.1 Advantages and disadvantages of popular applications (e.g. *Duolingo, Lingua.ly*)

Many digital platforms are valuable tools, but should be complemented with other methods (e.g., live tutoring or immersion) for a well-rounded language learning experience. *Duolingo* is ideal for beginners seeking a gamified and accessible platform, but may require supplementary resources for advanced grammar or speaking practice. *Lingua.ly* excels in contextual vocabulary learning through real-world texts but lacks opportunities for active language production. *Duolingo* has many advantages (rewards, streaks, and competitive elements make learning fun, motivating; it is available on multiple platforms (Android, iOS, and web); offers lessons for children with parental monitoring features) and disadvantages (focus more on vocabulary and reading than real-life speaking fluency; critics argue that gamification might distract from deep learning or long-term retention; unnecessary distracting advertisements; minimal grammar). Disadvantages of *Lingua.ly* are: passive learning (reading and vocabulary) – without opportunities for speaking or writing practice, inappropriate automated translations, words are without emphasis on phrases or collocations, no search or grouping options for the word bank (Hernandez, 2023).

1.3.2 Studying the functionality of websites for language practice (e.g. *Quizlet, BBC Learning English*)

Quizlet provides gamification and customisation to expand your vocabulary in different languages, and BBC Learning English offers engaging multimedia resources designed specifically for English language learners at all levels. (*see* **Table 1.3.2.1**).

Table 1.3.2.1

Comparison of Quizlet, BBC Learning English

№	Feature	Quizlet	BBC Learning English
1	**2**	**3**	**4**
1	**Interactive Tools**	Gamified activities (Match, Spell)	Multimedia lessons (video / audio; text-based lessons covering grammar, vocabulary, pronunciation, and real-world English use; idioms, expressions with quizzes; tracks quiz scores, completed lessons, personalized study plans)
2	**Speaking Practice**	Minimal	Moderate (series like *6 Minute English*, *Business English*, and *The English We Speak; real-world applications through programs like English My Way (e.g., job interviews or ordering coffee)*)
3	**Customization**	High (user-created sets: provides text-to-speech functionality for accurate pronunciation practice; flashcards; AI-powered Q-Chat: offers modes like "Quiz Me", "Story Mode", like Q-Chat, provides feedback on grammar and vocabulary errors)	Low (fewer games or AI-driven features)
4	**Languages Supported**	Multiple (easier typing)	Only English
5	**Easy of Navigation**	Organized	Can be disorganized
6	**Cost**	Free with optional premium	Completely free

(summarised by the author based on the resource: https://www.britishcouncil.org/voices-magazine/five-digital-resources-autonomous-english-language-practice)

Disadvantages of ***Quizlet*** are: Feedback in Q-Chat is often in English, which may not be ideal for advanced learners seeking immersion; AI tools can occasionally produce errors or buggy responses (Hernandez, 2023).

As for theory of technology integration, the effectiveness of digital tools depends on synergy with traditional methods:

1) hybrid learning models (e.g., use of mobile applications for homework and classroom lessons for practice).

2) methodological recommendations for teachers on the choice of technologies taking into account professional orientation.

Therefore, the theoretical foundations of the integration of digital technologies into language education

are based on synthesis of methodological approaches, cognitive theories and innovative practices, which ensure the effective formation of language competence. Digital tools, in particular NLP-systems, allow you to adapt educational content to the individual needs of students. Adaptive tutoring systems automatically correct language errors (for example, grammatical errors or vocabulary), analyze progress (NLP chatbots for spoken language practice) and offer tasks (e.g. joint projects on websites) that develop communication skills) taking into account the level of language proficiency.

To conclude this part of the chapter, digital technologies, with the introduction of a variety of mobile applications and online platforms, have developed, elevated and transformed language education, emphasizing personalized, interactive and accessible learning experiences. Students will achieve their best when combined with traditional teaching methods, where a carefully digitalized package of structured learning content is supplemented by tools that can increase motivation, engagement, and efficiency. The sooner innovative digital solutions are integrated to meet the diverse needs of higher education students in collaboration with faculty who are not only proficient in digital resources but also use them on a daily basis, the better the necessary foreign language and information competencies for professional and personal growth will be developed.

PART 2. METHODOLOGY FOR INTEGRATING MOBILE APPLICATIONS AND WEBSITES INTO THE EDUCATIONAL PROCESS

A methodology for integrating mobile applications and websites into the educational process is proposed in the second part through the development of a comprehensive framework that balances pedagogy, content, technology, learning environment, and learner profiles. Emphasis is placed on the importance of educators being involved in the implementation phases and on the design being ensured to facilitate effective use in accordance with learning objectives and context. The need for flexible, context-aware approaches that utilize mobile technologies to enhance engagement, collaboration, and personalized learning is also recognized by the methodology.

2.1 Functional requirements for educational digital tools

Functional requirements for educational digital tools should include adaptive technologies that personalize the learning experience based on individual progress and performance. Key requirements must balance technological innovation with practical educational needs, considering aspects like user interface design, content delivery methods, and assessment capabilities. The implementation of these functional requirements needs careful consideration of cross-platform compatibility and accessibility standards to ensure maximum effectiveness for diverse learner populations.

2.1.1 Identification of key features (e.g. adaptive testing, gamification, collaborative capabilities)

These features collectively enhance language learning by addressing diverse learner needs, promoting engagement, and fostering collaboration. However, their effectiveness depends on thoughtful implementation tailored to specific educational goals.

Key Features of Language Learning Websites & Applications are: 1) adaptive testing with the benefits of personalized learning, efficient retention; 2) gamification – with boosts motivation, makes learning fun; 3) collaborative capabilities – fosters teamwork, enhances creativity. Of course, all are connected with challenges – requires advanced technology, risk of reduced engagement over time, uneven contributions may hinder progress.

Language learning platforms use various innovative features to enhance engagement, personalization, and collaboration.

2.1.2 Platform selection (*Android, iOS*, web-based solutions)

Scholar Shevchuk (2023) touches upon the problem of the methodology for implementing mobile applications

and websites in the ESP classroom, partly focusing on the availability of periodicals in Europe and the United States dedicated to mobile learning (International Journal of Mobile and Blended Learning (since 2009); International Journal of Mobile Learning and Organization (since 2007)), and a number of foreign projects to create a new virtual learning environment using mobile technologies. Selecting a platform for language learning (between Android, iOS, and web-based solutions) depends on factors: 1/ functionality; 2/ accessibility; 3/ user preferences (see **Table 2.1.2.1**). The table was created by open summarizing information from the following sources: Reviews of popular mobile applications for learning foreign languages, such as *Duolingo, Busuu, Babbel, Memrise* (portals: OsvitaNova – https://osvitanova.com.ua; РБК-Україна – https://www.rbc.ua), publications on the use of mobile applications in language teaching, which analyze the functionality of applications, their pedagogical potential:

Table 2.1.2.1

Platform Selection: Android, iOS, and Web-Based Solutions for Language Learning

№	Platform	Apps	Key Features	Advantages	Disadvantages
1	2	3	4	5	6
1	Android	Duolingo, Memrise, Busuu, HelloTalk	Offline support; gamification; affordable	Accessible; customizable	Ads; compatibility issues
3	iOS	Duolingo, Rosetta Stone, Memrise, HelloTalk	Immersive features; seamless syncing	Polished interface; premium options	Higher costs
3	Web-Based	BBC Learning English, FluentU, Lingopie	Multimedia lessons; tailored professional content	Accessible across devices	Internet dependence

(summarised by the author based on resources: http://pedagogy-journal.kpu.zp.ua/archive/2023/90/29.pdf; https://osvitanova.com.ua/posts/448-10-mobilnykh-dodatkiv-dlya-)

For casual learners seeking gamified experiences, Android, iOS apps like *Duolingo* or *Memrise* are ideal. Professionals may benefit more from web-based platforms like *BBC Learning English or Mondly*, which offer tailored content for specific goals. The choice ultimately depends on individual preferences regarding mobility, cost-efficiency, and learning objectives.

2.1.3 Comparison of existing applications, websites

The table below is the result of systematizing publicly available information about the key characteristics, advantages, and disadvantages of platforms and websites for learning English for professional purposes. It is a

detailed comparison of popular language learning tools (*see* **Table 2.1.3.1**):

Table 2.1.3.1

Comparison of Existing Language Learning Applications and Websites

№	Platform	Key Features	Advantages	Disadvantages
1	**1**	**2**	**3**	**4**
1	Duolingo	Gamified lessons; adaptive AI	Fun; beginner-friendly; free	Limited grammar depth; gamification-heavy
2	Memrise	Native speaker videos; mnemonic devices	Quick vocabulary building	Minimal writing/speaking practice
3	Busuu	Community corrections; cultural tips	Interaction with native speakers	Simplified content; fewer languages
4	BBC Learning English	Multimedia lessons; specialized programs	Comprehensive English resources	Focuses only on English
5	FSI Language Courses	Government-grade materials	Fluency-focused	Challenging for beginners

(summarised by the author based on the resources: https://babelschooloflanguages.education/2020/07/04/language-learning-apps-advantages-and-disadvantages/; https://www.britishcouncil.org/voices-magazine/five-digital-resources-autonomous-english-language-practice)

For beginners or casual learners, *Duolingo* and *Memrise* offer engaging gamified experiences. *Memrise* has ***mnemonic devices ("mems")*** to aid vocabulary retention, and offers more than 20 languages with engaging multimedia content. *Busuu's* advantages are: facilitates interaction with native speakers for real-world practice; covers language and cultural awareness in 13 languages but is less suitable for advanced learners due to simplified lessons. Government-grade courses developed by the United States Foreign Service Institute (FSI Language Courses), designed for diplomats, now available publicly, includes PDFs, audio files, and workbooks for self-study, but the content is difficult for beginners due to its professional focus. Professionals who seek fluency may benefit from FSI Language Courses**.** Other English learners can rely on BBC Learning English's multimedia resources. Busuu is great for community-based learning but is better suited for intermediate learners. The choice of a suitable program directly depends on the individual goals, language preferences, and the desired depth of learning of the student.

2.2 Designing the structure of the learning content

Designing the structure of the learning content, winning strategies of the top languages learning companies are visualized by Riseapp & are demonstrated by Golovnya (2024) (*see* **Table 2.2.1**):

Table 2.2.1

The rating of popularity of the leading foreign language learning companies, their design, advantages

№	The language learn application	Advantages
1	**2**	**3**
1	duolingo	Free trials, gamification, and spaced repetition.
2	**Busuu**	EMEA-market focus and 10,000 + live tutors.
3	MEM RISE	Merging in-app and video instruction & native speaker clips.
4	HelloTalk	Connecting native speakers & real-time corrections.
5	Rosetta Stone	A paid-only service with over 10 million user base.
6	+Babbel	Hundreds of offline courses & over 52 apps.
7	mondly	Multiple VR apps.

(The resource**:** https://riseapps.co/how-to-build-a-language-learning-app/)

2.2.1 Development of modules for professional vocabulary, grammar and listening

In order to ensure effective interaction of higher education students with educational material, to achieve the desired results after testing the newly introduced information technologies, it is appropriate to develop a structure of educational content that affects the results of the process, responding at critical moments to shortcomings on the part of the teaching staff. *Backward Design, Logical Sequencing*, *Cause-and-Effect Approach*, *Chunking Content* (breaking large blocks of information into smaller, more easily digestible parts to improve understanding), *Interactive Learning* (incorporating opportunities to apply knowledge in realistic scenarios through performance-based tasks or simulations) are best practices for structuring learning content. It is worth following these steps, best practices of the domestic and foreign educational community, because it is possible to develop interesting, accessible, relevant to the educational goals of continuing education structured learning content.

2.2.2 Using UML diagrams to model interaction with an application

Due to the properties of ICT / Information and Communication Technology (interactivity, multimedia), teaching aids for students with different types of useful UML / Unified Modeling Language (case diagram (provide a high-level overview of interactions between users and the application), sequence diagram (illustrate step-by-step interactions between objects in the system over time), activity diagram (represent workflows and

decision points within the application), class diagram (provide a static view of the application's structure by defining classes and relationships), communication diagram (focus on object collaboration during interactions)) to more effectively perceive the necessary material, in which information is concentrated, compressed, and acquire properties that most closely meet the needs of modern youth. Filling the content of courses with electronic versions of textbooks and manuals alone does not meet the learning objectives.

UML is widely used in software development to ensure effective collaboration between developers, to improve the quality of system design.

The main types of UML diagrams are: *structure diagrams*: Class, component, implementation diagrams; *behavior diagrams*: Sequence, activity, state diagrams; *interaction diagrams*: Collaboration, sequence diagrams.

To model interaction with a digital application for an EFL (English as a Foreign Language) classroom using UML diagrams, you can employ various types of diagrams to represent the system's structure and behavior effectively. Key UML diagrams can be used to model interactions when applied in the context of ESP, namely: the teaching & research staff of institutes, universities uploads lesson plans; students access, complete assignments; a student logs in, selects a lesson, completes a quiz, and submits results; a student selects a lesson, completes exercises, receives feedback, and decides whether to retake the lesson; a "Lesson" class with attributes like title and description, associated with a "Quiz" class; a student interface interacts with backend services to retrieve lesson content or store quiz results; a student moves from logging in, to accessing lessons, to completing quizzes, and receiving feedback.

2.3 Recommendations for teachers on integrating Mobile Apps, Websites into the English learning curriculum

By following this algorithm, teachers can successfully integrate mobile apps, websites into their English language curriculum, increasing the effectiveness of online and offline teaching and engaging students in Ukraine.

2.3.1 Algorithm for integrating mobile apps, websites

There is no consensus among scientists on the algorithm for integrating mobile applications and websites into English-language teaching, curriculum, which can bring about learning gains in reading, writing skills, including aspects of vocabulary, grammar, effectively. Teachers can follow a structured algorithm: needs assessment, selection of resources**,** integration planning, implementation, monitoring, feedback, evaluation. Many factors should be considered, such as: 1) without determining students' knowledge levels, learning preferences, goals, identifying gaps in the curriculum (identifying areas where mobile applications and websites could complement traditional teaching methods) during assessment, it is more difficult to organise training at the proper level; 2) according to observations, the choice of high-quality, user-friendly, interesting in content, student-

friendly digital resources (with a high rating (4.5+), good educational reviews, vocabulary quiz apps, interactive grammar tools, and platforms for conversational practice) plays a major role, as it has a comprehensive impact on the result of English language acquisition. It is worth not only taking into account recommendations or advertisements for educational apps, but also testing their relevance to specific goals (for example, improving foreign language competencies), checking for feedback mechanisms, collaboration tools, and multimedia content; 3) when planning the integration of apps, it is important to remember the daily (vocabulary) / weekly (speaking, etc.) regularity to achieve good results (e.g. daily vocabulary practice or weekly speaking tasks), unity with the curriculum (you can separately indicate the best mobile app/apps next to the topics of the student's classes), inclusion in the seminar or lecture plans, assignment of tasks (for example, the Total Physical Response (TPR) application allows for role-playing tasks); 4) a gradual pilot implementation that introduces learners to the applications, website/websites, addresses technical issues, provides guidance on effectiveness with a tutorial, examples and encourages collaborative activities using the applications to promote peer learning, easy interaction; 5) analysis of the consequences of working with the application (if any) for monitoring academic performance, the level of student engagement, listening to regular feedback from students about their impressions of working with the application offered by the teacher to study areas for improving interaction, adjusting strategies (improving the use of the application based on feedback and observations of academic performance; 6) comparing students' performance before and after the integration of the app (e.g., through tests, oral assessment) to optimise learning effectively. Any evaluation of the effectiveness of the implemented mobile applications and website will be an indicator of an increase or decrease in student motivation to learn, interest, engagement, and acquisition of foreign language competences among students. Methodological and Technological Advancements in E-Learning are demonstrated in the following information (Dritsas, Trigka, 2025) (see **Table 2.3.1.1**):

Table 2.3.1.1

Methodological and Technological Advancements in E-Learning

№	Methodologies	Advancements	Key Features
1	**2**	**3**	**4**
1	Methodologies in E-Learning	Instructional Design Frameworks	*Bloom's Taxonomy* (remembering – recalling facts and basic concepts; understanding: Explaining ideas or concepts; applying: Using information in new situations; analyzing: Breaking information into parts to explore relationships; evaluating: Justifying a decision or course of action; creating: Producing new or original work); the *ADDIE Model* / Frame (analyze; design; develop; implement; evaluate); *Kemp Design Model* (nonlinear and emphasizes flexibility); *Dick and Carey* (treats instruction as a system of interrelated components); *Gagné's Nine Events* (outlines 9 instructional events to promote effective learning); Design Thinking (a learner-centered, iterative process); *Backward Design* (UbD – starts with the end in mind); *Merrill's Principles* (task-centered and problem-based, emphasizing real-world application)
			platforms like those developed by *Smart Sparrow*, *Adaptemy* demonstrate 20–50% improvements in engagement, knowledge retention through

		Adaptive Learning Systems	continuous optimization, and development; next-generation systems (self-regulated learning nudges based on *Pomodoro* technique adaptations; dual n-back games integrated with course content to enhance working memory; mindfulness interventions triggered by stress detection algorithms
		Assessment Methodolo-gies	connected with methods – diagnostic (quizzes, interviews), formative (feedback, discussion), summative (exams, final projects), norm-referenced (standardized tests), criterion-referenced (licensing exams), ipsative (portfolios)
		Collaborative & Social Learning Approaches	collaborative Learning – *Think-Pair-Share, Problem-Based Learning, Jigsaw Method* (each group member becomes an expert in one part of a topic and teaches it to others), *Informal Collaborative Groups* (short-term, flexible groupings); social strategies include: *Peer-to-Peer Teaching, Discussion Forums, Role-Playing and Debates, Media* and *Social Media Use*.
2	Tech nolo gies in E-Lear ning	Gamification Tools	The leading gamification platforms are: *Classcraft* (gamifies classroom management and learning through game avatars, quests, points, and badges. Promotes collaboration and positive behavior, primarily in K-12 education), *Kahoot! Quizizz, Gametize* (experiences with challenges, rewards, and social engagement); *EdApp* (microlearning, quizzes, points, and badges, optimized for corporate and mobile learning), *Duolingo* (XP, streaks, and leagues to engage learners across 40+ languages), *Xperiencify* (psychological triggers like urgency and social proof), *Nearpod* (integrates gamified polls, VR field trips, and interactive boards into lessons); by transforming daily tasks into compelling challenges, platforms like *Classcraft and Hoopla* foster intrinsic motivation, collaboration, and data-driven decision-making. Future advancements in AI and immersive technology promise to further personalize learning experiences to make education more accessible and impactful.
		Artificial Intelligence in E-Learning	It is central to e-learning innovation, delivering smarter, more engaging, and more effective educational experiences for all
		Big Data & Learning Analytics	support skill development, predict learner success, and enable continuous improvement-reshaping digital education for a more personalized, efficient, and impactful future
		Immersive Technologies	AI-powered personalization adapts to learning paths, content to individual needs, microlearning for bite-sized lessons, mobile-first design for anytime access, and advanced learning analytics that provide predictive insights to support learners and optimize content. LMS platforms like *Canvas* integrate immersive Virtual Reality (VR) / Augmented Reality (AR) experiences, gamification, social learning, blockchain for secure credentials, hybrid learning models, making them central to modern education and corporate training.
		Learning Management Systems	Leading LMS providers include *Continu, 360Learning, Docebo, Absorb LMS, Moodle, Sana, TalentLMS, LearnUpon*, and *Canvas*, many of which incorporate these advanced features to deliver immersive and personalized learning experiences
3	Cha-	Access & the Digital Divide	It is essential for educational equity, economic opportunity, and preparing all learners for a digital future. Sustained investment and targeted policies are needed to ensure universal, affordable, and effective access to digital learning resources.
		Resistance to	Overcoming resistance requires comprehensive strategies-improving

	llen-ges, Limi-ta-tions	Technologi-cal Adoption	training, infrastructure, and support systems-while addressing the diverse needs and contexts of educators and learners.
		Data Privacy and Security	Data security supports data privacy by protecting data from unauthorized access, but data privacy also governs how data should be properly handled and used.
		Scalability & Personaliza-tion	Achieving both scalability and personalization demands robust, adaptive systems that balance growth, user experience, and data protection.
4	Oppor tuni-ties, Future Direc-tions	Real-World Applications & Case Studies	These cases (*Target Data Breach, Equifax Breach, Yahoo Data Breach, Marriott Data Breach, Google Phishing Defense* (implemented real-time user education within its email services, using machine learning to flag suspicious emails and provide instant guidance. This significantly reduced successful phishing attacks and demonstrated the value of proactive user awareness)) illustrate the need for continuous improvement in data privacy and security practices to protect organizations and their customers.
		Development of Equitable & Sustainable E-Learning Ecosystems	It is built on open resources, strong infrastructure, cross-sector collaboration, and a focus on student needs, ensuring no learner is left behind (principles – *Open Educational Resources (OER), Inclusive Digital Infrastructure, Student-Centered Design, Collaborative & Distributed Ecosystems*).
		Advance-ments in Adaptive and Personalized Learning	*AI-Driven Personalization, Real-Time Feedback & Analytics, Immersive Technologies, Data-Driven Insights, Equity & Accessibility* focus on equity, learner engagement
		Integration with Emerging Technologies	These technologies (*gamification, mobile learning, cloud-based platforms, AI-driven speech recognition, eye-tracking as assistive technologies, immersive technologies (VR/AR)*) are converging to create more inclusive, flexible, and effective learning environments, but also require careful attention to equity, privacy, and responsible implementation
		Strategic Recommenda tions	Embrace AI and Adaptive Learning, Empower Educators, Learners, Address Data Privacy, Ethics, Support Continuous Learning, Upskilling, Focus on Content Quality and Relevance, Ensure Accessibility and Equity, using Immersive and Gamified Tools, Prioritize Microlearning and Modular Content will help organizations and educators create engaging, scalable, and future-ready e-learning ecosystems in next years.

(summarised by the author based on the resource: *https://www.mdpi.com/2078-2489/16/1/56*)

2.3.2 Examples of lessons using mobile applications and websites

A well-designed lecture or class for students requires a clear decision on the use of mobile applications and websites for learning English (Pohorilko, 2024). Below is one example (see **Table 2.3.2.1**):

Table 2.3.2.1

Examples of Lessons Using Mobile Applications and Websites for English Learning

№	Lesson Focus	Application(s)	Lesson Objec-tive	Activities	Follow-Up / Assessment
1	**2**	**3**	**4**	**5**	**6**
1	**Vocabulary Building**	*Duolingo, Memrise, Knudge.me*	To improve vocabu-lary retention and usage	Students are assigned specific vocabulary sets (e.g., travel, business English) in the app. App-based flashcards, games are used to reinforce learning. A short in-class quiz assesses retention.	Students are encouraged to use new words in sentences during class discussions.
2	***Grammar Practice***	*Johnny Grammar's Word Challenge, Powowbox*	To streng-then grammar skills through inter-active exercises	Students complete grammar challenges or error-spotting games in the app. Common errors are discussed in class. Homework involves creating sentences with correct grammar.	App analytics (if available) are used to track progress.
3	***Speaking Practice with Native Speakers***	*Lingbe, Busuu*	To enhance speaking fluency and pronun-ciation	Students are paired with native speakers for a 10-minute conversation on a given topic. Notes are taken on new phrases and corrections. Experiences and new phrases are shared in class.	Feedback is provided on pronunciatio n and fluency, possibly using recorded conversation s.
4	**Listening Comprehension**	*FluentU, Two Min English*	To improve listening skills using authentic content	Students are assigned a short video lesson on a specific topic. Comprehension questions from the app are answered. Key points, pronunciation, and vocabulary are discussed in class.	Students create dialogues based on the video content.
5	**Pronunciation Practice with AI Tools**	*ELSA Speak*	To refine pronun-ciation accuracy through AI feedback	Students practice speaking phrases aloud, receiving real-time feedback. Focus is placed on challenging sounds or words. Classroom activities use correctly pronounced words in role-play.	Progress reports from the app are used to track improvement .
6	**Writing Skills Enhancement**	*Padlet, Mondly*	To develop	A writing prompt is posted on Padlet or a thematic lesson is	Individual writing tasks

			writing skills through interac-tive prompts and peer feedback	assigned in Mondly. Students write responses collaboratively and give peer feedback. Submissions are reviewed as a class.	are assigned to reinforce skills.
7	**Immersive Learning with AR**	*Mondly AR feature*	To engage students in real-life scenarios using AR technolo-gy	AR lessons simulate situations such as ordering food or asking for directions. Students interact with virtual characters. Cultural nuances and appropriate responses are discussed in class.	Similar scenarios are role-played without AR for further practice.

(summarised by the author based on the source:

https://www.moyo.ua/ua/news/top_10_prilozheniy_dlya_izucheniya_angliyskogo.html)

The essence of the integration of innovative online courses, mobile applications, and video conferencing in online and offline English language classes is their role in the life of students who want to get a quality education and gain the necessary experience for their further realisation in the information society of the early twenty-first century: "The use of IT in teaching foreign languages is one of the most important motives for the transition to a new stage of updating the content of education, which leads to appropriate changes in teaching tools, forms and methods of teaching" (Domnich, 2017, p. 35). In science, scientists distinguish between pedagogical and information technologies of distance learning:

1. *Pedagogical technologies of distance learning* are technologies of indirect active communication between teachers and students which include telecommunication and methodology of individual work of students with structured educational material presented in electronic form.
2. *Information technologies of distance learning* are technologies for creating, transferring, storing educational materials, organising and supporting the educational process of distance learning through telecommunication.

To be in demand in the future, students face difficult challenges, overcoming the difficulties of introducing new information approaches alongside old traditional approaches to education. With the help of information technologies, Ukrainians are trying to informatise education and form an information culture of students to overcome Ukraine's lagging behind developed Western countries in the development of an information society.

Thus, researchers Yordan and Yordan (2020) from Kyiv (the latter is moreover an English philologist) rightly note that "The integration of information technologies into education will create a new quality of

information and pedagogical activities, namely: improve the organisational conditions of the educational process – increase the effectiveness of learning by introducing new mechanisms of visibility and interactivity of the educational process, use a variety of sources of educational information, compact educational information due to the possibility of its collapse and extension in time and space (hypertext), optimise the pace of students' work (differentiation, individualisation of learning), to improve psychological and pedagogical conditions of learning activities by creating a student's interest and positive motive through a natural interest in a computer, ..., ensuring ... development of student's communicative and information culture, including mechanism of development of students' research skills, ...; to promote individualisation, differentiation, intensification of education and, as a result, its optimisation and improvement" (Yordan, Yordan, 2020, p. 117).

Makarenko (2013) is right in statement: "The potential of information technologies is indispensable as a support for the development of the student's personality: his ability to think alternatively, to form the ability to develop a strategy for finding solutions to both educational and practical problems, to forecast the outcomes of the realisation of decisions based on modeling the objects studied, phenomena, processes, interrelationships between them" (ibid, p. 120). In essence, thanks to information and communication technologies, in the educational process, teachers redirect their help mainly to solving problematic, research, and creative tasks by students. This scientist revealed the trends in the development of education in the information society (ibid, p. 12).

Informatisation of education through technology is directly related to the compaction of educational information as an improvement of one of the organisational conditions of the educational process due to the possibility of its collapsing and expanding in time and space. This sounds great on paper for both school and university students. But in practice, it turns into a boomerang: such compaction leads to gaps in knowledge because, as a rule, the vast majority will have large gaps in knowledge, which is already ineffective in studying important topics. In addition, it is a paradox in education that university professors accuse students of having learnt the necessary material at school, while school teachers complain that they were not taught the necessary knowledge at university. As a result, only those who are not indifferent to self-education know what they need to know later, to catch up on lost or missing knowledge. Therefore, pieces of training and video explanations for both the teacher and the student are very much needed, especially if they are bilingual – in Ukrainian, Hungarian, or English. Similarly, a seemingly diligent student of foreign philology took a computer science class in the first year of the Ferenc Rakoczi II Transcarpathian Hungarian College of Higher Education but only remembered topics about working with a spreadsheet in Excel and creating a word cloud and a presentation in Hungarian.

Students in Hungarian schools in Transcarpathia are usually taught computer science in good faith, and there is excellent technical support (so that a Hungarian child does not experience psychological stress, they will be taught how to record a video and create a presentation/document in Word, send it to the teacher through Classroom). In villages with less technical support, the process is more difficult, so the percentage of children

trained in digital education is much lower there (not to mention the fact that not every child has a phone with which to use information technology).

Students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education in Transcarpathia have a great opportunity to improve their digital literacy skills because they have constant access to both the Internet and computers. This is a big benefit for solving one of the problems of introducing information technology.

"Ukrainian pedagogical works that address the issues of the theory and practice of distance learning cover a wide range of research topics: ...distance learning of foreign languages by V.Zhulkevska, N. Mulina, V. Svyrydiuk, P. Serdiukov, O. Soroka, development and use of multimedia and computers in teaching foreign languages by P. Asoyants, O. Hon, V. Deineko, V.Redko, P Serdiukov, G. Chekal, etc" (Domnich, 2017, p. 36).

The advantages of using IT in English language teaching are as follows: interactivity, individualisation, and accessibility.

The anonymous author of the article "The Relevance and Benefits of Learning English" (2021) mentions travelling time, convenience, and efficiency as advantages of online schools.

The main advantages of online English language courses are: flexibility of schedule, accessibility, variety of resources, community of foreign language learners, individualisation, and choice.

Some popular platforms and resources for online English language learning include *Duolingo, Babbel, Rosetta Stone, Lingodeer*, and, of course, many courses on *MOOC platforms* such as *Coursera, edX, Memrise*.

Video conferencing (Bereksasi, 2024; Stepanov, 2012; Fodor, 2024) can be an effective way to make learning English more interesting and engaging. They can also help learners learn to debate, improve their speaking, listening, reading and writing skills.

There are many useful digital tools summarised & added by the author based on the resource done by admin of British Council, 2025 (https://digital-tools-x3hz.glide.page/dl/da19fa):

1. games: *Brightful Meeting Games, Educaplay;*
2. classroom tools: *English tools, Krisp, OpExams Classroom, Scribe, Teacher Made, The QR Code Generator;*
3. grammar: *Cliplingo, Language Tool;*
4. critical thinking: *Debate AI, Oxplore;*
5. listening skills: *Lyrics training (Lingoclip), VoiceTube, Youglish;*
6. speaking skills: *Speak & Improve, Vocaroo, Buddies;*
7. reading skills: *Knowt, Lit2Go, Read Aloud, TextProject, Unite for Literacy, Story Weaver;*
8. writing skills: *Storywizard, Paraphraser, Write & Improve;*
9. revision: *QuizletLearn;*
10. AI: *Chat GPT, Quillbot, Claude ai, Perplexity ai Character AI, Detect GPT;*

11. teaching *platform: Twinkl,* ISL collective, Live worksheets;
12. vocabulary: *Underline;*
13. authoring tools: *Interacty, ClassHook, Diffit, Mentimeter, QuestGen, Wordwall, TEDEd;*
14. search: *Bard/Gemini, Perplexity ai, Copilot.microsoft;*
15. social emotional learning: *Kikori;*
16. lesson resources: *Curipod, Song Activity Factory;*
17. screenshots: *Tango;*
18. assessment: *Certifyem.*

This year, there are the best AI tools for teachers: *Team-GPT, MagicSchool, Quillbot, Fetchy, SlidesAI, Eduaide, EducationCopilot, Teacherbot, Curipod, Gradescope, Yippity, and QuestionWell* (Valchanov, 2024).

Thus, given the choice of the right methodology for integrating mobile applications and websites into the educational process, it can be argued that it is interconnected with functional requirements (adaptive testing, gamification, functions of motivated cooperation between university professors and students to improve learning outcomes. Their joint assessment of the advantages of a suitable digital platform (Android, iOS, or a web-based solution) affects the compatibility and accessibility of students' devices. Designing the structure of the learning content – development of modules focused on professional vocabulary, grammar, and listening skills, supported by UML diagrams to model user interaction with the application. The teaching staff can be advised to follow a step-by-step algorithm for integrating applications, websites, and use practical examples in seminars and lectures to effectively improve the English language curriculum. The main provisions of the methodology and practical recommendations for integrating digital tools into education require further in-depth study.

PART 3. EMPIRICAL RESEARCH

Too few practical investigations were found, based on the analysis of the challenges of modern education – distance, offline – and related to information technologies integrated into education to improve the quality of higher and secondary education students' proficiency in Hungarian-language schools (Huszti, Fábián, Komári Bárányné (2009)), the Institute (Stoika, 2024) of the Transcarpathian region, a foreign language, etc. However, it is worth trying to carefully study the object we have chosen on the example of students of different specialties to make sure that the hypotheses mentioned in this section are reasonable. In addition, unfortunately, the result of shortcomings in secondary education in terms of information and foreign language competencies leads to an imbalance in the learning of a professional foreign language. The third chapter focuses on a study examining how mobile applications and websites are used in ESP (English for Specific Purposes) classes at Ferenc Rákóczi II Transcarpathian Hungarian College. It presents research involving students from English Language and Literature majors (SELL) and other specialties (OS), analyzing their familiarity with and usage of digital learning tools. The study investigates which platforms, mobile apps, and websites students prefer for developing different language skills. It identifies several challenges students face when they use these technologies, including internet connectivity issues and varying levels of digital literacy. The chapter also reveals interesting differences between SELL and OS students in terms of their willingness to use online learning resources.

The study of the impact of mobile applications and websites in ESP classes in the speech of students at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education is a topical issue that reflects global trends in digitalised language practice in Ukraine. Based on the results, which do not claim to be exhaustive, it is possible to trace the effectiveness of their implementation at the micro and macro levels. Given globalisation processes, the development of information technology, this type of use of mobile applications and websites is increasingly becoming part of the everyday life of students and teachers, including the educational process.

The objectives are: to analyse the frequency of mobile applications and websites in ESP classes of higher education students at the above-mentioned institute; to study which mobile applications and websites for learning English are most common; to assess the impact of mobile applications and websites on the language practice of multilingual learners, multilingual students who speak both Ukrainian and Hungarian alongside English.

Using the method of sociolinguistic survey among higher education students, an anonymous survey was conducted, and the results were analyzed to make suggestions for improving the learning of English (both British and American versions) through the use of information and innovative technology. It is suggested that such technology can enhance the learning experience, promote greater excitement and enthusiasm for learning a foreign language, and significantly diversify the learning process, both in classes with a university teacher and in personalized or directed learning.

Through a comparative analysis, the strengths and weaknesses of the study regarding the implementation of mobile applications and websites in ESP classes for higher education students at the mentioned institute were identified.

Based on a comprehensive consideration of linguistic and sociocultural aspects of language, ways to solve the problem were proposed. Objective data were obtained using the statistical method, quantifying the beneficial and effective impact of mobile applications and English language learning websites on improving the speech of students from various specialities. The presence of mobile applications and websites in the curricula (including the special course 'Teaching EFL Online' and the courses 'Methodology of English Language & Literature Teaching' and 'Foreign Language Acquisition') was examined through the content analysis method, along with the didactic materials used at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education.

The most active respondents were full-time and part-time students majoring in SELL, their number is much lower at the above-mentioned Institute.

The research topics were: 1) how students navigate mobile applications and websites; 2) what are the most common sources, social networks, and online platforms that help to learn English more effectively (including the rapid development of foreign language competences that are popular among the youth of the above-mentioned institute); 3) recommendations and wishes of students for better vocabulary memorisation, etc. using mobile applications and websites.

3.1 Hypotheses

Hypotheses are following:

1) students navigate educational mobile applications and websites at the appropriate level;

2) platforms, websites, and educational mobile applications recommended by faculty are a favorable environment for students to learn English;

3) mobile applications that include remote repetition systems and gamification elements contribute to better vocabulary retention by students compared to traditional methods of memorization;

4) a significant number of students remain uncertain about the positive impact of videoconferencing, online courses, and mobile applications on their English language learning.

3.2 Empirical study

This section examines how students at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education use innovative technologies, particularly mobile applications and websites, for learning English. The methodology of an online survey conducted among students from various specialties is presented in this section, with their awareness, preferences, and attitudes toward digital learning tools being analyzed through quantitative and qualitative methods. A comparative analysis of responses between students majoring in English Language

and Literature (SELL) and those from other specialties (OS) is discussed, with differences in usage patterns, perceived advantages and disadvantages, and specific challenges faced by these groups being highlighted. Interesting trends regarding students' familiarity with various online platforms, mobile applications, and digital resources for language learning, as well as their willingness to integrate these technologies into their educational process, are revealed by the findings.

As for procedure, questionnaires were held between respondents of all specialities of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. These questionnaires were conducted online & were completed by students. They were distributed to them in February, allowing ample time for completion. The process of filling out each of the questionnaires took approximately 20 minutes. Anonymity was ensured throughout. The questionnaires consist of Likert Scale questions but also include multiple-choice and open-ended questions.

Ethical approval was obtained from relevant institutional review boards to ensure the ethical integrity of the study. Ethical considerations such as informed consent, confidentiality, participant anonymity were strictly adhered to throughout the research process.

The relevant questions pertaining to the topic were collected and documented. Once all participants had completed the questionnaires, they were gathered and analyzed. Questionnaires were designed to gather quantitative data from students.

3.2.1 Participants

Among the anonymously interviewed students of the Faculty of Philology of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, majoring in English Language and Literature, full-time and part-time (SELL) there are 46 respondents, and 32 respondents of other 15 specialities (OS).

A total of 46 respondents took part in the survey of day-time and correspondence students majoring in English Language and Literature (45 questions in the questionnaire). SELL students were younger (17-22 years old) than OS students. The gender distribution shows that SELL students have a significantly higher percentage of female respondents compared to OS students.

The survey was taken by students obtaining a bachelor's degree at various faculties – “Tourism” (32.3%, or 10 respondents), “Accounting and Taxation” (9.7%, or 3 respondents), “Finance, Banking, Insurance, Stock Market” (53, 1%, or 17 respondents), International Relations, Public Communications and Regional Studies (3.2%, or 1 respondent), Ukrainian Language and Literature (3.2%, or 1 respondent), English Language and Literature (100.0%, or 45 respondents).

81.8% of SELL students attend our college full-time, 9.1% choose distance learning, and smaller percentages choose other forms of education. OS students, on the other hand, exhibit a different pattern, with 19.4% enrolled in part-time/correspondence and 80.6% enrolled in full-time education.

First-year Bachelor students make up the largest percentage of SELL students (44.4%), followed by second-year students (35.6%), third-year students (11.1%), and fourth-year students (8.9%). With 29% in their first year, 25.8% in their second, 29% in their third, and 16.1% in their fourth, the distribution of OS students is more balanced. It's a pity, students who are studying at the master's level did not participate in the survey.

Students have different English language proficiency levels – mainly B2 in SELL, while A1–B1 in OS.

3.2.2 Research instruments

As for research instruments, the combined using of different methods, along with ethical considerations, provided a comprehensive, rigorous approach to investigating the aspects of using innovative technologies in teaching English to students of linguistic, non-linguistic faculties. The quantitative method was chosen because questionnaires offer a relatively cost-effective, efficient means of gathering extensive information from numerous participants. The research methodology aimed to generate valuable insights and contributed to the advancement of language education with implementation of mobile apps and websites in the educational context.

The data, submitted by the students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education of the speciality SELL of full-time and part-time forms of study, other 15 specialities (OS) in the form of Google in 2024, was collected through a digital questionnaire, direct conversations with students. Statistical methods were used to determine the frequency of their awareness of mobile applications and websites, and the levels of satisfaction/dissatisfaction with their use in English language classes at the College. The measurement was performed using questionnaires (see **Appendix A** and **Appendix B**).

Based on the qualitative (quantitative) analysis, it is possible to identify the attitudes of SELL and OS respondents towards new mobile apps and websites for learning English.

Analysing the data, it was found that the above-mentioned English-language mobile applications and websites are mostly popular among SELL (to a greater extent) and OS (to a lesser extent) respondents, which is a sign of their partial or insufficient awareness of them for certain reasons, while at the same time having a positive impact on improving their foreign language competence, especially speech, vocabulary, active penetration into everyday speech, especially through social networks and media, which become their integral part, which is proof not only of changes in foreign language culture but also of successful self-assertion in the world in the long run.

The respondents mostly approve of the integration of mobile applications and websites into English classes to improve learning outcomes, although they understand how new challenges of our time can both help and slow down the process of education quality due to the incomplete perfection of science or technical gadgets.

However, the overwhelming majority of respondents' answers indicate a more frequent use of mobile applications and websites in language learning, because it is now prestigious to speak English at a high level, as it opens up wider prospects for the development and implementation of information and foreign language competences at the same time, which is a sign of education, originality of multilingual learners, bilingual or

multilingual students (who speaks several languages of different complexity) of our university, able to compete in the European labour market alongside culturally developed ones.

In fact, the introduction of information technologies in ESP classes for students of the above-mentioned institute does not significantly destroy the balance between the provision of knowledge offered by the university's teaching staff and innovations from developers and distributors. advertisers of mobile applications and websites, but, on the contrary, facilitates online, offline and blended learning, in which students are offered to combine learning in the classroom of the institute (for those who are present and have not yet left due to Russia's full-scale invasion of Ukraine) with online components of learning (for those who were forced to leave our country for various reasons).

The procedure of studying the impact of information technology on the acquisition of knowledge, improvement of foreign language competence of higher education students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education of Applied Sciences. specialities SELL, OS of full-time and part-time forms of study will improve the quality of the educational process of the institution, will allow to study the language aspects, positive or negative consequences of the introduction, integration of mobile applications, websites in the educational process, related to numerous factors, the speed of adaptation to them by both students and teaching staff of the institute (usually their teaching materials, programmes, presentations partly contain useful recommended Internet resources for learning English that have been tested on their own experience), who also need to have a high level of IT skills (it is no secret that a more inquisitive student can even hear or work with mobile applications unknown to teachers, etc.) in the context of globalisation (international cooperation in business, education, etc.) and the development of information technology.

The active use of SELL, OS by the students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education is a proof of the integration of information and pedagogical technologies into English classes to improve learning outcomes through the introduction of simulation for engaging foreign language learning or virtual reality with the prospect of development / self-development of a highly qualified specialist in various disciplines, providing access to the necessary curricula, free software for practice, using language exercises, online resources, and other tools.

There are no significant reasons to worry about the problem of students‘ excessive absorption of the latest technologies, such as AI-based English language learning tools, as the institute's administration is committed to preserving traditional pedagogical technologies while developing students’ foreign language competence through modernised techniques that ensure the educational process in this region without significantly upsetting the balance of advanced techniques, innovations, methods and principles of teaching.

The state's language policy depends on solving the difficulties of correct use of a foreign language in Ukraine by graduates of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education of Foreign Languages, understanding the balanced implementation of mobile applications and websites for the development

of foreign language competence (not by devaluing the work of the teaching staff in the face of scientific and technological progress in IT).

As for the comparative analysis of the survey, the majority students from different faculties of Tourism, Accounting & Taxation, Finance, banking, insurance, stock market, International Relations, Public Communications & Regional Studies, Ukrainian language and literature are enrolled in full-time education.

3.2.3 Findings

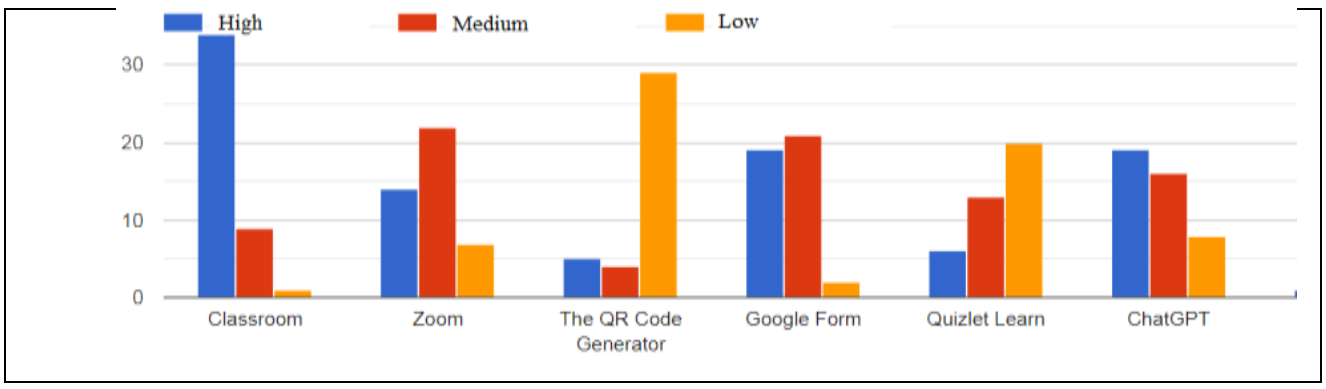
Due to the limited space available for this type of work, the results of the most interesting answers to certain questions are presented below.

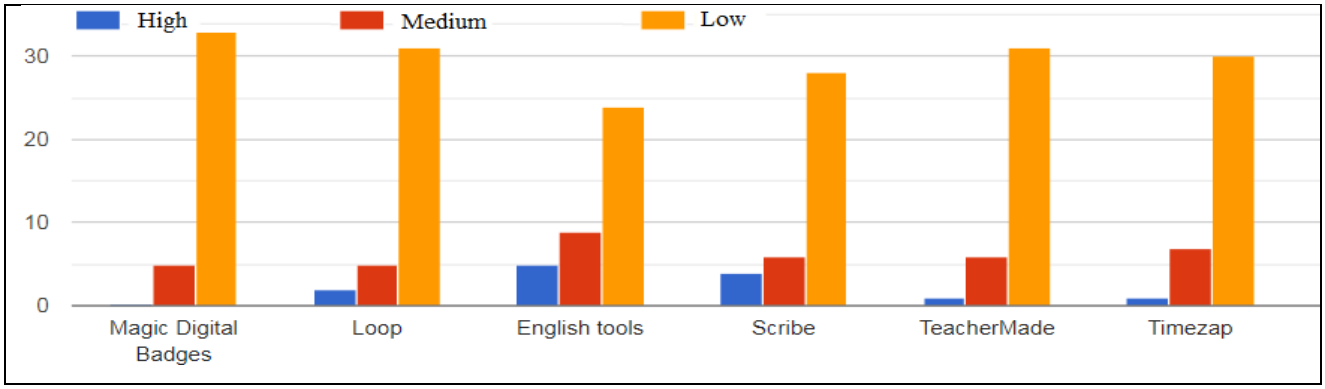
The balance of the level of information resources of SELL students can be seen in **the diagram 3.2.3.1** in which the high level the first place among the respondents was taken by *Classroom (34 respondents)*, the second by *Google Form (19 respondents)*, *ChatGPT (19 respondents)*, the third by *Zoom (14 respondents)*, fourth by *Wordwall (8 respondents)*, fifth by *Quizlet Learn (6 respondents)*, sixth by *Scribe* (5 respondents), *The QR CodeGenerator (5 respondents)*, seventh by *English tools (4 respondents)*, eighth by *Loop (2 respondents), Podcastle (2 respondents), Presentation GPT (2 respondents)*, ninth by *Mentimeter (1 respondent), Teacher Made (1 respondents), Timezap (1 respondents);* that later lost its functionality; as for the middle level the first place among the respondents was taken by *Zoom (23 respondents)*, the second by *Google Form (22 respondents)*, the third by *ChatGPT (17 respondents);* as for the lower level the first place among the respondents was taken by *Presentation GPT (35 respondents;* perhaps for the reason that it was just becoming popular; instead of the previously mentioned information resource for creating presentations, most likely a more advertised *Gamma.AI* was used by them more often in practice), the second by *Magic Digital Badges (34 respondents)* that later lost its functionality, the third by *Podcastle (32 respondents), Loop (32 respondents), Teacher Made (32 respondents)*.

As a result of the analysis of these data, the following **diagram 3.2.3.1** was developed, which highlights the levels of information resources of SELL students.

Diagram 3.2.3.1

The balance of the level of information resources of SELL students

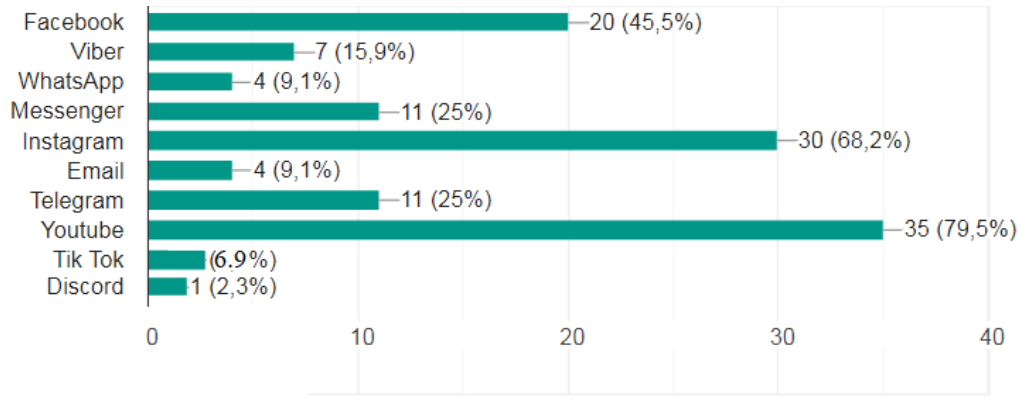




In **the diagram 3.2.3.2** the result of the question about bot only platforms and video conferencing for online and offline English lessons can be seen. SELL students also learned from various platforms about innovative online courses, mobile applications (mostly from *Youtube* – 79,5%, or 35 respondents, *Instagram* – 68,2%, or 30 respondents and *Facebook* – 45,5%, or 20 respondents), namely:

Diagram 3.2.3.2

Platforms of innovative online courses, mobile applications

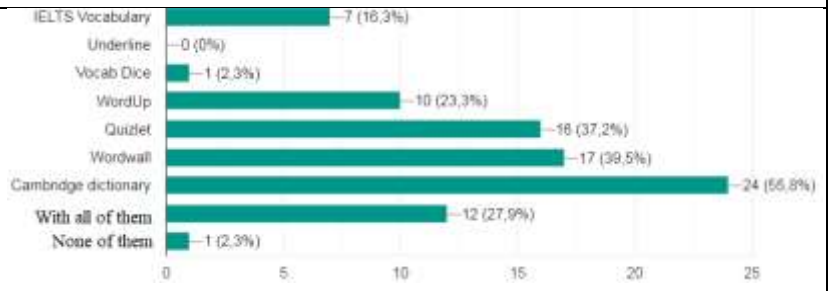


In **diagram 3.2.3.3**, the questions about the implementation of innovative IT (with the help of websites) can be seen according to different types of language competencies: the largest results relate to a rather significant imbalance in the number of responses received – 35 respondents (83,3%) do not use any of the websites for development listening skills suggested in the questionnaire, the same applies to the development of speaking skills – 36 respondents (85,7%), of reading skills – 36 respondents (85,7%), of critical thinking skills – 31 respondents (73,8%), of creative, digital literacy and digital narrative – 35 respondents (83,3%), of journalism, media resources, creation of content-rich online courses – 33 respondents (78,6%); instead, the *Cambridge Dictionary website* received the highest number of votes among respondents who are happy to use it for enriching English vocabulary. It is hypothesized that such results are caused by several factors: first, a lack of time and an overload of respondents with information about other disciplines, leading to the fact that attention is primarily paid by most students to enriching vocabulary; second, a lack of timely advertising or rapid information regarding

the most necessary websites for improving knowledge, skills, and abilities, given the unlimited number of available resources. Students are also familiar with such vocabulary improvement resources as IELTS vocabulary, WordUp, Quizlet, and Wordwall. Unfortunately, our students have not yet heard of websites and applications that improve listening, speaking, reading skills, critical thinking skills, creativity, digital literacy and digital narrative, development of journalism, media resources, creation of content-rich online courses, which is confirmed by the very low results in the survey (85% on average).

Diagram 3.2.3.3

The implementation of innovative IT (with the help of websites) according to different types of language competencies

The language skill	**Name of innovative IT**
Enriching English **vocabulary**	

Among the surprising answers were those related to digital tools with educational games (*AskAway, Brightful Meeting Games, Stop Disasters, Yask, Werewolf Friends*). The answers were mainly about partial familiarity (14.3%) with them, full familiarity – 4.8%, completely unknown – 81%, which is evidence of students' lack of awareness.

As for online courses for learning English among SELL students, only 1 respondent used both *5percangol* and *the British Council*, 2 used only *5percangol*, 2 used *the British Council*, 1 used *Edera*, and 1 used *Wordwall*. It turns out that students are not yet familiar with *Studyless, Coursera, EdX, speaknyelviskola*. Among the 6 answers from OS students, there are *Coursera, British Council, and 5percangol*.

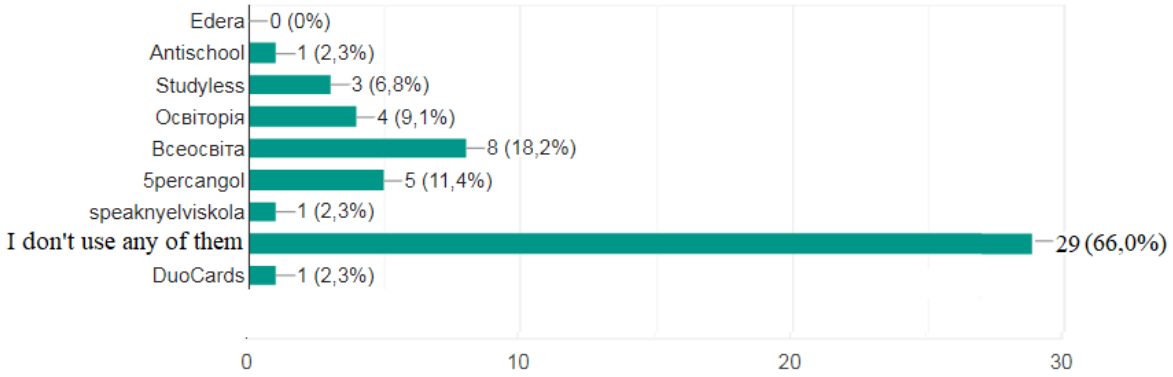
Responses from SELL students are fairly evenly distributed: 16.7% use British Council and 5percangol courses, while 8.3% use Edera, speaknyelviskola, Wordwall, or no online courses at all. This implies that SELL students' preferences can vary across multiple platforms, with no one online course that appear to be the most popular.

90.3% of OS students said they don't use any of the online courses on the list. Just a small percentage said they had neutral or favorable experiences using these platforms. This shows that many OS students don't use these new online English courses, maybe because they don't know about them or aren't interested.

The students' answers can be compared with another **diagram 3.2.3.4**, which also mentions Ukrainian online courses; unfortunately, little interest is shown in them.

Diagram 3.2.3.4

The balance of the Ukrainian & the Hungarian online courses



Mobile applications for learning English (e.g. Duolingo, Preply, Bright, Busuu, Falou) are still used by 26.7% of SELL students and 16.1% of OS students, which proves their importance for improving foreign language skills among young people. With 58.1% of respondents selecting Duolingo, the results clearly show that it is the most popular app. Only 3.2% to 6.5% of students use other apps like DuoCards, English Stories with Lingua, Bright, Busuu, Xeropan, Grammarly, and Quizlet, indicating a significant preference gap. Preply, Bright, Falou are almost unknown apps to them. Duolingo is also the most popular app among OS students, as indicated by eight respondents, compared to just one for each of the other apps. This implies that Duolingo is regarded as the most user-friendly and successful English language learning app in this category, with other apps having a far smaller impact.

As for online platforms for communicating with native speakers (e.g. *Tandem, HelloTalk, Speeky, Reddit, MyLanguageExchange*), they are not yet quite popular among respondents, namely: 37.8% of SELL students and 6.5% of OS students liked them, while 60% of SELL students and 90% of OS students do not know about them.

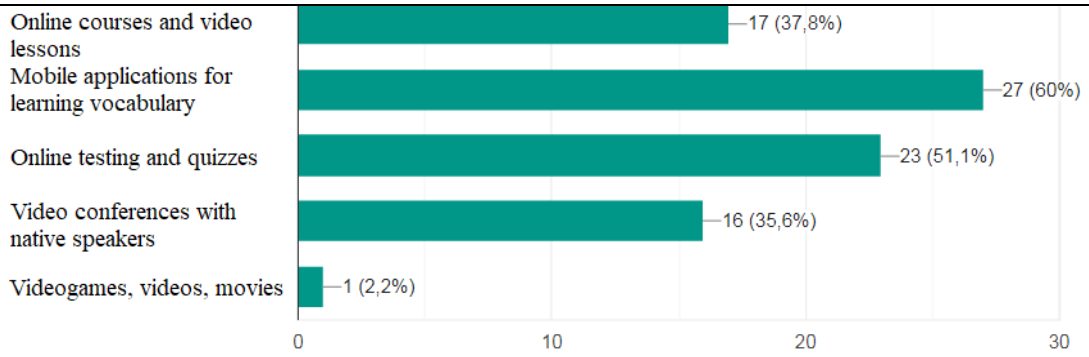
2 SELL students each positively noted the relevance of *Discord* (11.1%) and *Hello Talk* (11.1%) in their lives and studies, while 5.6% each mentioned *Tandem, Instagram, Chat in English, Omegle, Discord, Twitter, Reddit*.

As for innovative technologies for teaching English, the most interesting for students of SELL and OS are the following (**diagrams 3.2.3.5**): first place – mobile applications for learning vocabulary / grammar; second – online testing and quizzes; third – online courses and video lessons; fourth – video conferences with native speakers. A trend of students' disinterest can be seen in video games, videos, and TV series (2.2%).

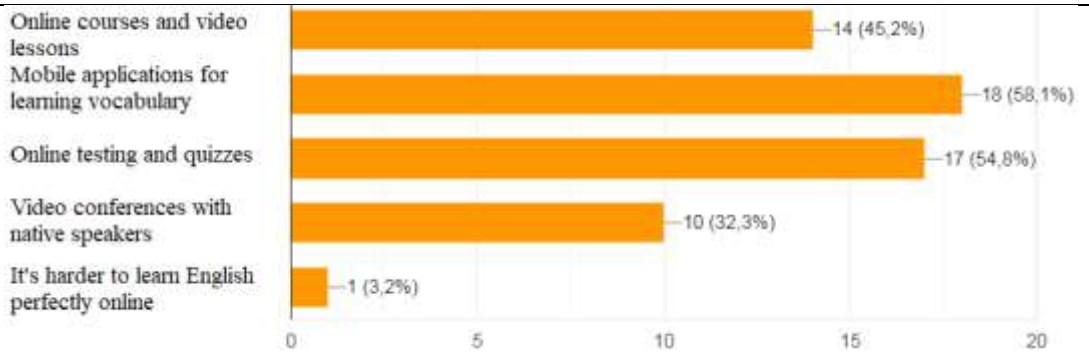
Diagrams 3.2.3.5

The balance of innovative technologies for teaching English

ELL students



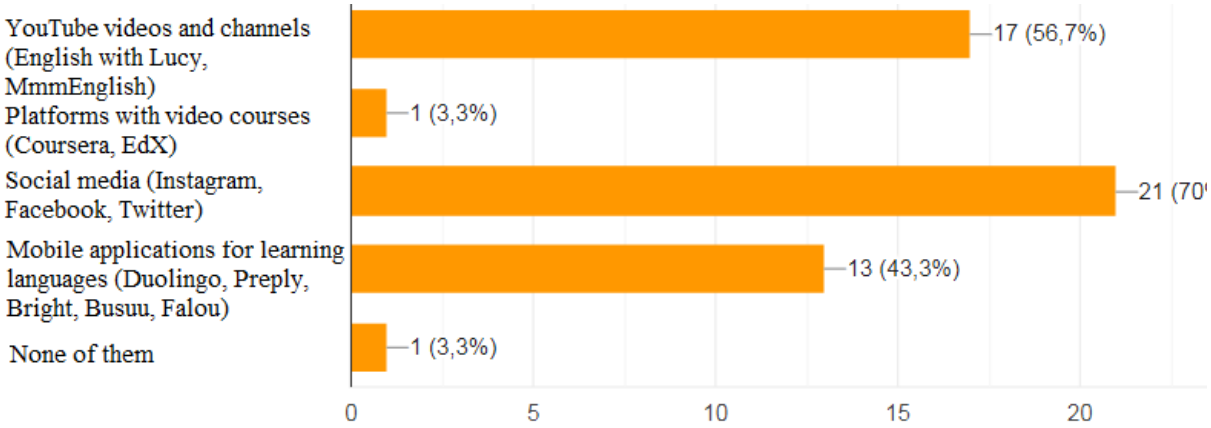
S students



At the same time, OS students use the following online resources to practice English (**diagram 3.2.3.6**):

Diagram 3.2.3.6

The usage of online resources for practicing English



Only 11.1% of SELL students (English Language and Literature) are absolutely willing to pay, whereas the majority (55.6%) are unwilling, and 33.3% express conditional willingness based on quality and price. However, OS students show somewhat higher unconditional willingness (12.9% answering "Yes") and similar

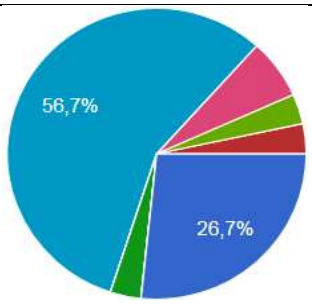
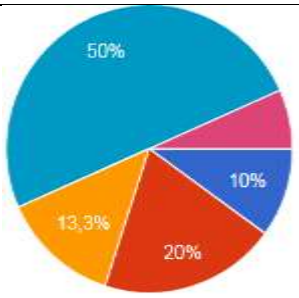
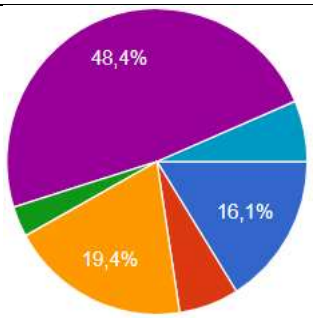
rejection rates (41.9% answering "No"), as well as greater conditional acceptance (41.9% would consider paying depending on cost and quality).

OS students would like to see some of their English classes held online. According to the data, 37.2% of students are in favor of having some English classes held online, while 32.6% would feel more comfortable studying only in a traditional classroom setting. Another 25.6% of respondents are against online classes altogether. Only a small percentage (4.7%) are indifferent or undecided.

Diagrams 3.2.3.7 below shows the frequency of using English online courses and mobile applications by the teachers of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education among OS students:

Diagrams 3.2.3.7

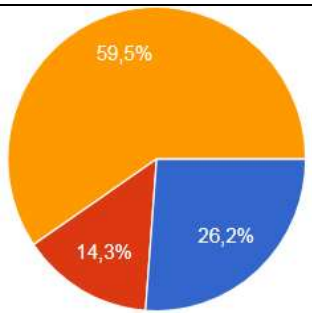
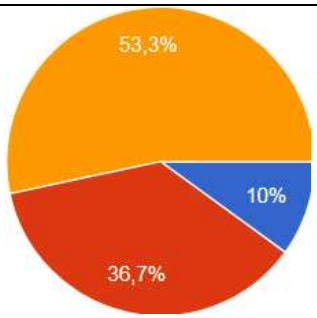
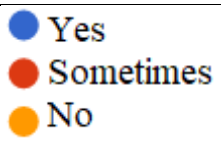
The frequency of using English online courses, mobile applications by the teachers of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education

Online courses		Several times a month Once a month Once every 3 months Once every 6 months Once in 1 year Never There is no academic discipline "English"
Mobile applications		Several times a month Once a month Once every 3 months Once every 6 months Once in 1 year Never There is no academic discipline "English"
Video conferences		Once a month Once every 3 months Once every 6 months Once in 1 year Never There is no academic discipline "English"

The following chart shows that SELL students confirmed their experience of using video conferencing, mobile applications or online courses at school (**diagram 3.2.3.8**):

Diagram 3.2.3.8

The experience of using video conferencing, mobile applications or online courses at school

SELL students	OS students	Answers
		

41.9% of the respondents (as against 48.4% of the OS students) are unsure about the positive impact of video conferencing (as well as online courses and mobile applications) on the development of English language learning.

The responses of SELL students to the question about the length of time they spend on online English courses are also interesting. The majority 63.6% report spending only 30 to 60 minutes per session, indicating a preference for shorter study periods. Another 31.8% dedicate 1 to 2 hours, while only a small fraction spend more than 2 hours at a time. These results suggest that most students engage with online English learning in brief, manageable intervals rather than in extended sessions, possibly reflecting their busy schedules or a preference for focused, shorter lessons.

Students of SELL are unanimous in their response to the question about the compulsory implementation of online English language learning as a component of the course (for those who do not study English as a discipline at the college). According to the data, only 20% of respondents support the idea of making online learning an essential and mandatory component of the curriculum. In contrast, 24.4% believe it is better to keep this option available only for those who specifically request it. The majority, 55.6%, suggest offering students a choice between traditional and online components, rather than enforcing a single approach. This distribution indicates a clear preference for flexibility and student autonomy in selecting learning formats, rather than a strictly compulsory implementation of online English language learning.

Among the advantages of using innovative teaching technologies, the students of foreign languages highlighted:

1. free opportunity to study from online platforms
2. accessibility
3. time saving, direct access to native speakers
4. facilitated ability to express thoughts in English
5. simplicity and ease of use (2 respondents)

6. assistance to young people interested in self-development and aware of innovative technological changes in learning with the involvement of useful information and pedagogical technologies

7. quality, clarity, interest (one of the respondents pointed out the usefulness of mobile applications *Promova, Drops*).

In turn, students of English philology of our college revealed a number of significant advantages (the **table 3.2.3.1**):

Table 3.2.3.1

Advantages of using IT

№	Name of the advantage	Quantity of respondents
1.	Convenience for studying, mobility, relaxation, better concentration	11
2.	Flexibility / the space & temporal accessibility, possibility of self-study (free, time-independent learning)	9
3.	Improvement of vocabulary and pronunciation in a foreign language	4
4.	Improved access to a variety of information in one place, enrichment of quality learning material	3
5.	development of knowledge through a completely new approach	3
6.	enhancing the development of interest in learning, motivation	3
7.	the possibility of personalisation, adaptation to individual needs	2
8.	availability of choice among a wide range of offers (including a large selection of mobile applications)	2
9.	possibility of creating interactive learning	1
10.	creativity of learning, more opportunities for language learning, improved version for students with inclusion	1
11.	briefness in conveying the necessary information, due to online resources	1
12.	increased productivity and competitiveness, reduced costs and improved product quality	1
13.	providing socialisation, an exit for many students who lack courage or social skills	1

In their comments to the response about the convenience of innovative technologies for learning, OS students focused on the fact that the use of innovative teaching technologies makes it easier to learn, as students do not need to be face-to-face with the teacher, which helps them to relax, not be stressed by learning, and concentrate better on the learning material. They prove that innovative technologies help to implement what is necessary for work in some areas faster and more efficiently.

It was found in the process of surveying OS students that concerning the creativity of learning, they focused on more opportunities for language learning (this means less pressure on the student, more opportunities for development, including for people with disabilities, which is also important today.

The implementation of innovative technologies should be based on the following conditions: interaction of teachers and students and students with each other, taking into account the individual characteristics of all subjects of the educational process, innovation of the educational environment, which is implemented through content and procedural content, forms and methods of work, material base and support, psychological and

emotional comfort (Radchenko, 2020).

Among the disadvantages of using innovative teaching technologies, the OS students mentioned:

1. lack of control (1 respondent)

2. lack of personal contact and communication (an English teacher will always be a better teacher than an online course or app; 1 respondent)

3. visual impairment

4. temporary effectiveness.

At the same time, SELL students provided their vision of the disadvantages (the **Table 3.2.3.2**):

Table 3.2.3.2

Disadvantages of using IT

№	Name of the disadvantage	Quantity of respondents
1.	Weak internet connection in the area where the student lives remotely, technical problems that negatively affect concentration, distract students from learning through online classes	7
2.	Lack of sufficient information competence of the student, "getting lost in the online space" / online platforms, lack of experience with IT in online groups, online classes	4
3.	Uneven, unstructured, unusual presentation of educational content and overload of digital content (students will not be able to learn everything)	4
4.	Providing inaccurate or distorted information	3
5.	Addiction due to over-use of technology, which can lead to health problems (electronic devices harm the eyes)	3
6.	Poor impact on the psyche of some students, as a result of which they feel limited / constrained in the online space, lose interest in learning, important informality (online learning itself cannot replace lessons)	3
7.	It does not motivate students to study English	2
8.	Confidentiality issues, problems with privacy, data security	2
9.	A complex of disadvantages	2
10.	It is more difficult for the student to understand the educational material from the teacher, as a result of which the latter is unable to convey the necessary information properly	1
11.	Reduced improvement of practical English language skills	1
12.	The presence of a fee	1
13.	Reduction of teaching staff jobs due to automation of learning in the information space	1
14.	Technological risks	1
15.	Less effective for the development of conversational skills (except for online learning with real people)	1
16.	Unreliability	1
17.	Partial influence of useful information on personal experience, which leads to less confidence in the need for IT	1
18.	Redundancy in student learning (easier to learn in person)	1
19.	Reduced or complete lack of interaction with other students in the same group/students in combined groups of different majors/friends from the company	1

In the application of online learning, respondents, except for 3 OS students, faced difficulties, such as 1. low Internet connection / freezing / slow access to web pages, unforeseen disconnection, which make it difficult to master the course material / cause failure to complete the task, scheduled and unscheduled power outages (3 answers), 2. maintaining attention and motivation (1 answer), 3. making appointments (1 answer).

Only 10% had experience of using video conferencing, mobile applications or online courses at school (mostly Zoom), 36.7% had some experience, and 53.3% had no experience.

The OS students expressed their opinion on whether they agreed (29 respondents) or disagreed (5 respondents) with the statement that innovative technologies are now one of the most important factors when it comes to learning English online and offline

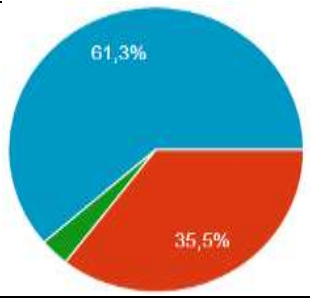
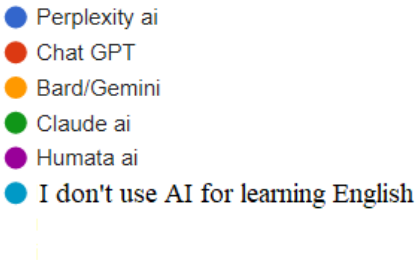
Based on the results, it can be observed that OS students' opinions on whether innovative technologies are one of the most important factors in learning English both online and offline. The results are quite mixed: 25.8% of students strongly disagree and another 25.8% disagree with the statement. The largest group, 32.3%, chose a neutral option, while only 6.5% agree and 9.7% strongly agree. This suggests that most students are either unsure or do not consider innovative technologies to be a key factor in learning English, with only a small number viewing them as very important.

Based on the outcomes, it was demonstrated how SELL students feel about the importance of learning English. Most students, about 40%, see it as moderately important, choosing the middle option. Around a quarter of them think it's a bit less important, while smaller groups feel it's either quite important or not very important at all. Only a few students, less than 10%, consider learning English to be very important. Overall, it appears that only a small percentage of students view learning English as a top priority, even though many see some value in it.

In learning English, OS students use artificial intelligence in the following proportions (**diagrams 3.2.3.9**):

Diagram 3.2.3.9

The balance of artificial intelligence usage

The speciality	The diagram	Answers
SELL students		
OS students		

SELL students faced the following difficulties & barriers in using online learning (the **Table 3.2.3.3**):

Table 3.2.3.3

Difficulties & barriers in using online learning

№	Description of the difficulty	Number of respondents
1.	Problems with access to the Internet (including difficulty hearing the answer)	17
2.	No difficulties or obstacles	7
3.	Boredom during uninteresting learning, so I left online learning	3
4.	Constant concentration causes difficulties, up to the point of losing attention (I am often distracted by other platforms, I cannot pay as much attention to the teacher's explanations as I can in the classroom, it is easier for me to speak when I see the other person face to face)	2
5.	Inability to use a computer / gadget (technical errors)	2
6.	Problems with electricity supply	2
7.	Lack of practical interaction between fellow students and teachers in the educational process	1
8.	Problems with short-term charging of gadgets / mobile devices, etc.	1
9.	Non-perception of information due to the presence of 2 teachers (often difficult to understand, especially if several teachers are involved in the process)	1
10.	Unnecessary information to use (some applications have terms that are not even used by native speakers in conversation)	1
11.	Problems with the software	1
12.	Problems with the appearance of pain (eyes, head, etc.)	1
13.	Stress from constant use of electronic devices	1
14.	Conversational skills cannot be practised in mobile applications	1
15.	Lack of understanding of any unknown terminology	1
16.	Overloading yourself with digital workload	1
17.	Lack of practice and awareness of different online platforms	1
18.	Motivation burnout and lack of stamina (I started and had no motivation to continue)	1
19.	Discomfort (online learning makes me feel uncomfortable)	1
20.	Difficulty in control	1
21.	Lack of opportunity to meet students or other people	1

The results show that YouTube videos and channels (English with Lucy, MmmEnglish) are in the first place, social networks are in the second place, mobile applications are in the third place, platforms with video courses are in the fourth place, and e-books, Reddit, Discord and synchronised and subtitled films/series are in the last place.

The following trends can be identified through the suggestions of OS students on the effective implementation of modern technologies for learning English in our higher education institution:

1) proper time management (it is necessary to use modern technologies as little as possible, educational videos can make learning more interesting)

2) involvement of video fragments to improve speaking and critical thinking skills (analysis of English-language music lyrics or scenes from films can be effective in English lessons)

3) involvement of role-playing games with students based on their favourite film fragments to develop creativity, speaking skills (to develop speaking skills, students can act out their favourite scenes from films). SELL students would like to see teachers use video conferencing, mobile applications, and online courses in English classes.

It is very positive that SELL students realise the value of information technology and believe that video conferencing, mobile applications and online courses can help them learn English. Despite the difficulties, students are interested in the implementation of information and pedagogical technologies for learning English in all faculties.

The value of studying their answers is an important step in understanding the current problems of implementing mobile applications and websites in one of the leading college of higher education in Transcarpathia.

The motivation to introduce and integrate mobile applications and websites into the educational process depends on the awareness and mutual desire of both the teaching staff and the student, regardless of the university. If he/she is interested in learning language aspects through IT, the student will be effectively motivated; the graduate will be able to prove his/her competitiveness in the European labour market, provided that he/she understands the benefits of learning a foreign language using IT, and makes his/her own efforts in mastering a foreign language (self-development).

Interactive digital tools, such as online platforms and mobile applications, multimedia resources, whiteboards, virtual reality, significantly improve not only motivation (positive educational environment), but also interest, personalized learning with digital adaptation to learning preferences, styles.

3.3 Results and applications

Hypotheses evaluation:

Hypothesis 1 is confirmed: most students mostly navigate educational mobile apps and websites through intuitive exploration rather than structured textbooks or instructions.

Hypothesis 2 is confirmed: social media platforms and interactive online communities are more effective for young people's English language learning than traditional educational websites or apps.

Hypothesis 3 is confirmed: mobile applications that include remote repetition systems and gamification elements contribute to better vocabulary retention by students compared to traditional methods of memorisation.

Hypothesis 4 is partially confirmed: 41.9% of the respondents (compared to 48.4% of the EFL students) are not sure about the positive impact of videoconferencing (as well as online courses and mobile applications) on the development of English language learning. This can be explained as a result of students' lack of confidence in their ability to understand English in videoconferences to its topics related to the challenges of language globalisation and professional orientation, on the one hand, and the lack of search for solutions to its introduction

among the student community by the university faculty (the Ferenc Rákóczi II Transcarpathian Hungarian Higher College of Higher Education included), who could demonstrate their digital, foreign language and professional competence, which in turn would serve as a great proof of the integration of digital technologies through the implemented online platforms that can develop and raise foreign language proficiency to a high level and transform language education by emphasising personalised, interactive, accessible learning experiences.

Based on the research observations on the implementation of mobile applications and websites discussed in the third part of the bachelor's thesis, the following trends have been identified:

1) technology gap in the fluency of higher education students (teachers' IT proficiency is also uneven, for example, if a teacher has a high professional level of digital experience in using them, practices them daily with students, he or she feels more comfortable than someone who has not acquired this experience before starting to work with the student community);

2) a gap between the recognition of the potential for successful implementation of digital packages of offline and online classes in classrooms (teachers unanimously oppose the use of sometimes unreliable, distorted or inaccurate information provided by AI, which harms disorientation regarding the educational material; a student who has used AI to complete English assignments to mislead the teacher may not be able to navigate the educational material at all, although he or she may find the necessary online resources);

3) imbalance between the familiarity of OS and SELL students with mobile applications and websites (if IS students do not have an adequate level of English, it is more difficult for them to choose the right quality content);

4) loss of motivation to improve their English language proficiency due to discomfort caused by unequal digital access to the Internet or loss of time to find the right free application, according to the needs, development of competences, and less often, lack of appropriate gadget capacity;

5) security, data privacy in online environments is a pressing issue today.

3.4 Recommendations for integration and optimization of digital tools

Depending on the results, it can be proposed:

1) to introduce students (both SELL and OS) to mobile applications, websites in English classes from the first year of undergraduate studies, and not from the period of master's studies (too late introduction will no longer be necessary, especially since some mobile applications lose their functionality within six months to a year, obviously due to unjustified competition in the market or the emergence of other mobile applications that are more advanced in terms of functions);

2) to use effective mobile applications and websites more frequently in any type of class to minimise psychological anxiety, dissatisfaction, fear, depression associated with missing out on pre-university English

language learning (applicants from different areas had uneven access to information and practice);

3) to include a unified list of quality, recommended free mobile applications and websites adapted to the level of a graduate of a similar university in the developed English language programmes for all specialities with its subsequent updating every year, as the relevance of web content and digital platforms is crucial, enabling information, foreign language support during university studies, and personalised learning;

4) to offer the teaching staff of foreign language education for higher education students more frequent practice to overcome information and language barriers (including – to engage in cooperation with key sites, platforms where there is communication with native speakers through text voice messages, video messages, 'Hello Talk', 'Tandem', 'Speaky', 'English Baby' (practice with slang)), use non-standard forms of learning using QR codes to mobile applications, websites, and introduce them to the latest achievements in IT more than recommended in the educational & qualification programmes for the disciplines of the mentioned Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, recommended by the Ministry of Education of Ukraine, to teach them to correctly navigate the choice of mobile applications & websites that are not overloaded for implementation, in accordance with the levels of proficiency of higher education students of various specialities in a foreign language, to encourage them to search for them and use them correctly (if possible, to develop students' own mobile applications and websites adapted for a multilingual graduate of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education);

5) representatives of the state or national minority of Hungary to introduce, possibly, grants to support organisations that develop mobile applications, websites designed for local (not foreign) higher education students, introduce innovative methods of learning English, support foreign language and computer science teachers who are able to adapt the necessary didactic material to promote applications, websites through the content of digitalised online dictionaries / electronic versions of dictionaries of their own publishers, media, social networks, free AI capabilities.

In fact, there is advertising of certain important educational sources, after which it becomes impossible to get acquainted with the necessary information without paying for the service. It is also worth paying attention to the simplification of access to information related to English-language content on the Internet: due to the absence or blocking of partial material on GPT websites, an average Ukrainian or Hungarian from Transcarpathia (including a student of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education) cannot access such information; he or she are forced to compensate for the gap in other ways due to inadequate material support. It is worth to focus on the Ukrainian-speaking recipient, which will make it easier for a non-native speaker of a foreign language to memorise and eliminate difficulties;

6) to introduce grants for organisations that develop and implement innovative mobile applications and websites, draw attention to the need for training for English language professors on the effective use of digital content in the educational process, or initiate competitions for the best mobile application or website for learning

English;

7) to monitor the awareness of higher education students and teachers, including through various mobile applications and websites for the prospective elimination of shortcomings and negative consequences of shortcomings (especially in the context of a full-scale invasion of Ukraine), so that the quality of education has real statistical indicators, not hidden / fake ones, that influence the public, build trust in educators as guarantors of improving the foreign language competence of students who are able to possess not only theoretical knowledge but also practical skills and compete in the European labour market in a digitalised and rapidly changing linguistic world.

To sum up, the integration of mobile applications and websites into the educational process requires mutual commitment from both educators and students, with clear recognition of the challenges, including technological proficiency gaps, uneven digital access, and concerns about AI reliability. The systematic solutions required to address these issues include the early introduction of digital tools into the curriculum, the creation of standardized application lists, and institutional support through grants and specialized training programs. In conclusion, the implementation of these recommendations is expected to enhance the effectiveness of language education and better prepare students for the competitive European job market in an increasingly digitalized world. Particular attention is given to students at institutions such as the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, where unique challenges in accessing quality digital language learning resources are faced.

CONCLUSIONS

The following conclusions have been reached, given the importance of introducing mobile applications and websites into the ESP classroom: the use of mobile applications and websites is gaining popularity among the digital generation today; information applications and websites provide quick access to data, its analysis, monitoring, and reporting. This allows you to respond quickly to changes and adapt your strategies following the information received. The introduction of modern information applications and websites allows for the implementation of various methods. As for recommendations, it is recommended that digital mobile applications and websites be actively introduced into the English language teaching system, regular staff training be conducted, and software be updated to maintain competitiveness in the market.

To sum up, in the research on the implementation of innovative online courses, mobile applications and video conferencing in online and offline English language classes at Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, the objectives and goals have been achieved and the level of modern students' awareness of IT, its importance and nuances have been determined. After reviewing the theoretical literature and the practical research, it can be concluded that as a result of the global dynamic update of digital tools, IT is a requirement for a competently developed teacher & a competitive student in the European market to avoid barriers to their implementation, while the possibilities of online sources help to establish a balance in both online and offline English language learning. Having considered all the material, it can be pointed out that the students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education are actively working on their self-education, improving their IT skills (through webinars, trainings, digital and distance education courses, etc.) and English language skills (through online courses, online games, and mobile language learning apps). Students of English philology and other faculties of the college use the Classroom platform, Google Meet, and are familiar with the implementation of *The QR Code Generator, Google Form, Quizlet Learn, ChatGPT, Mentimeter, Wordwall, Bard/Gemini*, etc. But they are not yet familiar with *Englishtools, Krisp, OpExamsClassroom, Scribe, TeacherMade*. In the research, it has been found that the most active users of digital tools are third- and fourth-year students, although not all of them use them, they are aware of the fact that they should be able to work with learning games (*Brightful Meeting Games*), online courses, mobile applications, forums, breakout rooms, and video conferencing in online and offline English classes.

Regarding the pros and cons of the implementation of innovative online courses, mobile applications, and video conferencing in online and offline English language classes at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, it has been observed that they are constantly evolving, they are approved by the vast majority of students, although there is still a problem of psychological adaptation to maintain the motivation to learn for students who speak Ukrainian and Hungarian at different levels, as this affects a positive attitude to learning one of the Germanic languages, which is a special feature of the college. The success of a

student at our college is guaranteed by appropriately trained teachers with the appropriate implementation of both pedagogical and information technologies. However, when choosing methods and techniques of language teaching, it can be assume that the need to involve students in videoconferences for all majors (with OS students they were held more often than with students of SELL) to activate passive language proficiency and active language learning between students is not fully taken into account, more attention should also be paid to the practical use or wider familiarisation with online courses and mobile applications, as it is more difficult for a student to choose the most useful ones in the labyrinth of the Internet in the rapid development of science and technology in an information society.

It can be noted with certainty that innovative IT has a positive impact on the development of listening (*Lyricstraining*), speaking (*Buddies, Animate from Audio), reading (Lit2Go, Unite for Literacy*), writing (*Storywizard*), critical thinking (*DebateAI, Oxplore*), creation of content-rich online courses by *Teachr*), enrichment of English vocabulary (*IELTS Vocabulary from Quizlet, Underline*), etc. Trends can be observe aimed at learning English and improving the level of foreign language proficiency among students of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. Based on the study, it can be seen that the introduction of mobile applications and websites into the EFL classroom in the activities of educational institutions is considered significant, as it affects the quality, statistical indicators, and learning effectiveness. It is a significant part of the process and ensures a continuous process and a positive quality state. However, the shortcomings of artificial intelligence cannot replace the effectiveness of the work done by an English teacher, nor can it reliably check the level of students' theoretical and practical mastery of English language topics, allowing significant inaccuracies, which leads to a decrease in the reliability of the information reflected in the educational profile, monitoring, etc. and affects the rationality of further decisions on improving the work. There may also be some discrepancies in the presentation of the necessary material to the student, for example, by artificial intelligence, which is a negative factor.

Therefore, it should be noted that the current introduction of mobile applications and websites into EFL classrooms needs to be improved, changes made to approaches to the quality of teaching, timely information about possible shortcomings, not just advantages, which will take into account the specifics of educational institutions, have clearer methodological recommendations, which in turn will help English teachers avoid undesirable consequences or inefficiency in displaying reliable information. It is also very important to strike a balance. Thus, the topic of methodological implementation of mobile applications and websites in the EFL classroom requires further research and is definitely actual.

Depending on the results, it can be proposed: 1/ to introduce students (both SELL and OS) to mobile applications, websites in English classes from the first year of undergraduate studies, and not from the period of master's studies (too late introduction will no longer be necessary, especially since some mobile applications lose their functionality within six months to a year, obviously due to unjustified competition in the market or the

emergence of other mobile applications that are more advanced in terms of functions); to use effective mobile applications and websites more frequently in any type of class to minimise psychological anxiety, dissatisfaction, fear, depression associated with missing out on pre-university English language learning (applicants from different areas had uneven access to information and practice); to include a unified list of quality, recommended free mobile applications and websites adapted to the level of a graduate of a similar university in the developed English language programmes for all specialities; to offer the teaching staff of foreign language education for higher education students more frequent practice to use non-standard forms of learning using QR codes to mobile applications, websites, and introduce them to the latest achievements in IT more than recommended in the educational & qualification programmes for the disciplines of the mentioned Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education, recommended by the Ministry of Education of Ukraine, to teach them to correctly navigate the choice of mobile applications & websites that are not overloaded for implementation, in accordance with the levels of proficiency of higher education students of various specialities in a foreign language, to encourage them to search for them and use them correctly (if possible, to develop students' own mobile applications and websites adapted for a multilingual graduate of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education); representatives of the state or national minority of Hungary to introduce, possibly, grants to support organisations that develop mobile applications, websites designed for local (not foreign) higher education students, introduce innovative methods of learning English, support foreign language and computer science teachers who are able to adapt the necessary didactic material to promote applications, websites through the content of digitalised online dictionaries / electronic versions of dictionaries of their own publishers, media, social networks, free AI capabilities; to introduce grants for organisations that develop and implement innovative mobile applications and websites; to monitor the awareness of higher education students and teachers, including through various mobile applications and websites.

ВИСНОВКИ УКРАЇНСЬКОЮ МОВОЮ

З огляду на важливість впровадження мобільних додатків та веб-сайтів у навчальний процес з англійської мови професійного спрямування, ми дійшли таких висновків: використання мобільних додатків та веб-сайтів набуває все більшої популярності серед цифрового покоління; інформаційні додатки та веб-сайти забезпечують швидкий доступ до даних, їх аналіз, моніторинг та звітність. Це дозволяє швидко реагувати на зміни та адаптувати свої стратегії відповідно до отриманої інформації. Впровадження сучасних інформаційних додатків та веб-сайтів дозволяє реалізовувати різні методи. Щодо рекомендацій, то рекомендується активно впроваджувати цифрові мобільні додатки та веб-сайти в систему викладання англійської мови, проводити регулярне навчання персоналу та оновлювати програмне забезпечення для підтримання конкурентоспроможності на ринку.

Таким чином, у дослідженні щодо впровадження інноваційних онлайн-курсів, мобільних додатків та відеоконференцій в онлайн та офлайн заняттях з англійської мови в Закарпатському угорському інституті імені Ференца Ракоці ІІ було досягнуто поставлених цілей та завдань, а також визначено рівень обізнаності сучасних студентів з ІТ, їх важливість та нюанси. Проаналізувавши теоретичну літературу та проведене практичне дослідження, можна зробити висновок, що в результаті глобального динамічного оновлення цифрових інструментів, ІТ є вимогою для компетентно розвиненого викладача та конкурентоспроможного студента на європейському ринку, щоб уникнути бар'єрів на шляху їх впровадження, а можливості онлайн джерел допомагають встановити баланс як в онлайн, так і в офлайн вивченні англійської мови. Розглянувши весь матеріал, можна зазначити, що студенти Закарпатського угорського інституту імені Ференца Ракоці ІІ активно працюють над самоосвітою, вдосконалюючи свої ІТ-навички (через вебінари, тренінги, курси цифрової та дистанційної освіти тощо) та навички володіння англійською мовою (через онлайн-курси, онлайн-ігри та мобільні додатки для вивчення мови). Студенти кафедри англійської мови та літератури, а також інших факультетів інституту користуються платформою *Classroom, Google Meet*, знайомі з реалізацією *The QR Code Generator, Google Form, Quizlet Learn, Chat GPT, Mentimeter, Wordwall, Bard/Gemini* тощо. Але вони ще не знайомі з *English tools, Krisp, OpExamsClassroom, Scribe, TeacherMade*. У ході дослідження було виявлено, що найактивнішими користувачами цифрових інструментів є студенти третього та четвертого курсів, хоча не всі вони ними користуються, але усвідомлюють, що повинні вміти працювати з навчальними іграми (*Brightful Meeting Games*), онлайн-курсами, мобільними додатками, форумами, конференц-залами, вебсайтами та відеоконференціями на онлайн та офлайн заняттях з англійської мови.

Щодо плюсів та мінусів впровадження інноваційних онлайн-курсів, мобільних додатків та вебсайтів на онлайн та офлайн заняттях з англійської мови в Закарпатському угорському інституті імені Ференца Ракоці ІІ, то було помічено, що вони постійно розвиваються, схвалюються переважною

більшістю студентів, хоча все ще існує проблема психологічної адаптації для підтримання мотивації до навчання студентів, які володіють українською та угорською мовами на різних рівнях, оскільки це впливає на позитивне ставлення до вивчення однієї з германських мов, що є особливістю ВНЗ. Успіх студента в нашому виші гарантують відповідно підготовлені викладачі з належним впровадженням як педагогічних, так і інформаційних технологій. Однак, при виборі методів і прийомів викладання мови можна припустити, що не в повній мірі враховується необхідність залучення студентів до відеоконференцій для всіх спеціальностей (зі студентами ІС вони проводилися частіше, ніж зі студентами САМтЛ) для активізації пасивного володіння мовою та активного вивчення мови між студентами, більше уваги слід також приділяти практичному використанню або більш широкому ознайомленню з вебсайтами та мобільними додатками, оскільки студенту складніше вибрати найбільш корисні з них у лабіринтах Інтернету в умовах стрімкого розвитку науки і технологій в інформаційному суспільстві.

Можна з упевненістю зазначити, що інноваційні ІТ позитивно впливають на розвиток аудіювання (*Lyricstraining*), говоріння (*Buddies, Animate from Audio*), читання (*Lit2Go, Unite for Literacy*), письма (*Storywizard*), критичного мислення (*DebateAI, Oxplore*), створення змістовних онлайн-курсів *Teachr*), збагачення словникового запасу англійської мови (*IELTS Vocabulary from Quizlet, Underline*) тощо.

Простежуються тенденції, спрямовані на вивчення англійської мови та підвищення рівня володіння іноземною мовою серед студентів нашого інституту. На основі проведеного дослідження можна побачити, що впровадження мобільних додатків та веб-сайтів на заняттях з англійської мови професійного спрямування в діяльності навчальних закладів вважається значущим, оскільки впливає на якість, статистичні показники та ефективність навчання. Це значна частина процесу, яка забезпечує безперервність процесу та позитивний якісний стан. Однак недоліки штучного інтелекту не можуть замінити ефективність роботи, яку виконує викладач англійської мови, а також не можуть достовірно перевірити рівень теоретичного та практичного засвоєння студентами тем з англійської мови, допускаючи значні неточності, що призводить до зниження достовірності інформації, відображеної в освітній характеристиці, моніторингу тощо, та впливає на раціональність подальших рішень щодо вдосконалення роботи. Також можуть виникати певні розбіжності у поданні необхідного матеріалу студенту, наприклад, штучним інтелектом, що є негативним фактором.

Отже, слід зазначити, що сучасне впровадження мобільних додатків та веб-сайтів в аудиторії англійської мови професійного спрямування потребує вдосконалення, внесення змін у підходи до якості викладання, своєчасного інформування про можливі недоліки, а не лише переваги, які враховуватимуть специфіку навчальних закладів, матимуть більш чіткі методичні рекомендації, що, в свою чергу, допоможе викладачам англійської мови уникнути небажаних наслідків чи неефективності у відображенні достовірної інформації. Також дуже важливо дотримуватися балансу. Таким чином, тема методичного впровадження мобільних додатків та веб-сайтів на заняттях з англійської мови професійного спрямування

потребує подальших досліджень і є безумовно актуальною.

Залежно від отриманих результатів можна запропонувати 1/ знайомити студентів (як САМтЛ, так і ІС) з мобільними додатками, веб-сайтами на заняттях з англійської мови з першого курсу бакалаврату, а не з періоду навчання в магістратурі (занадто пізнє знайомство вже не буде необхідним, тим більше, що деякі мобільні додатки втрачають свою функціональність протягом півроку - року, очевидно, через невиправдану конкуренцію на ринку або появу інших мобільних додатків, більш досконалих з точки зору функцій); частіше використовувати ефективні мобільні додатки та веб-сайти на будь-яких видах занять для мінімізації психологічної тривоги, незадоволеності, страху, депресії, пов'язаної з пропуском довишівської підготовки з англійської мови (абітурієнти з різних населених пунктів мали нерівний доступ до інформації та практики); включити до розроблених програм з англійської мови для всіх спеціальностей уніфікований перелік якісних, рекомендованих безкоштовних мобільних додатків та веб-сайтів, адаптованих до рівня випускника аналогічного університету; запропонувати викладацькому складу іншомовної підготовки здобувачів вищої освіти частіше практикувати використання нестандартних форм навчання з використанням QR-кодів до мобільних додатків, веб-сайтів та знайомити їх з останніми досягненнями в галузі ІТ більше, ніж рекомендовано в освітньо-кваліфікаційних програмах з дисциплін згаданого вище вишу, рекомендованих МОН України, навчити їх правильно орієнтуватися у виборі мобільних додатків та веб-сайтів, не перевантажених для реалізації, відповідно до рівнів володіння здобувачами вищої освіти різних спеціальностей іноземною мовою, заохочувати їх до їх пошуку та правильного використання (за можливості, розробити власні мобільні додатки та веб-сайти, адаптовані для поліглотного випускника Закарпатського угорського інституту імені Ференца Ракоці II); представникам держави або національної меншини Угорщини ввести, можливо, гранти для підтримки організацій, які розробляють мобільні додатки, веб-сайти, призначені для місцевих (не іноземних) здобувачів вищої освіти, впроваджують інноваційні методи вивчення англійської мови, підтримують викладачів іноземної мови та інформатики, які здатні адаптувати необхідний дидактичний матеріал для просування додатків, веб-сайтів за допомогою контенту оцифрованих онлайн-словників / електронних версій словників власних видавництв, медіа, соціальних мереж, безкоштовних можливостей штучного інтелекту; запровадити гранти для організацій, які розробляють і впроваджують інноваційні мобільні додатки, сайти, проводити моніторинг рівня обізнаності здобувачів вищої освіти, викладачів, у т. ч. за допомогою різних мобільних додатків і веб-сайтів.

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APPENDICES

APPENDIX A

Questionnaire survey

conducted for the practical purpose of research

in the process of writing a bachelor's thesis

by Khrystyna Bereksasi

My name is Khrystyna Bereksasi. I am a fourth-year English language and literature student at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education.

I need this information to find out which innovative teaching methods (online courses, mobile applications, video conferencing) are most in demand among the target audience, as well as to understand the advantages and disadvantages of implementing certain technologies from the point of view of students and teachers.

The purpose of this survey is to investigate students' opinions on the implementation of innovative methods of teaching English.

The questionnaire is intended for students of the English language and literature

Thank you in advance!

1. Gender
- Male
- Female
- Better not to specify

2. Age
- before 14
- 15–18
- 19–30
- 30–59
- 60+

3. Major
- English language and literature

4. Form of study
- Full-time
- Part-time
- Distance learning
- Free attendance
- Other:

5. Level of study
- Bachelor's degree
- Master's degree
- Junior specialist

6. Course of study

- I Bachelor's degree
- II Bachelor's degree
- III Bachelor
- IV Bachelor
- I Master
- II Master
- Other:

7. Level of English language proficiency

- B1
- B2
- B2+
- C1
- C2
- Other:

8. Have you used an online course to learn English (e.g. Edera, Studyless, Coursera, EdX, 5percangol, speaknyelviskola, British Council)?

- Yes, I liked it
- Yes, but I didn't like it
- No
- Other:

If yes, which ones?

Your answer

9. Have you used mobile apps to learn English (e.g. Duolingo, Preply, Bright, Busuu, Falou)?

- No
- I used to and still do
- Yes, but not anymore

If yes, which ones?

Your answer

10. Have you used online platforms to communicate with native speakers (e.g. Tandem, HelloTalk, Speeky, Reddit, MyLanguageExchange)?

- Yes, I liked it
- Yes, but I didn't like it
- No

If yes, which ones?

Your answer

11. Which innovative technologies for teaching English would be most interesting to you (you can choose more than one option)?

- Online courses and video lessons
- Mobile applications for learning vocabulary
- Online testing and quizzes
- Video conferences with native speakers

Other:

12. Would you like to see some of your English classes conducted online?

- Yes
- No
- I would feel more comfortable studying only in the classroom
- Other:

13. What are the advantages of using innovative learning technologies?

- Your answer:

14. What are the disadvantages of using innovative teaching technologies?

- Your answer:

15. What difficulties or obstacles have you ever had in using online learning?

- Your answer:

16. Do you have any suggestions for the effective implementation of modern technologies for learning English at our college of higher education?

- Your answer:

17. What online resources do you use to practice English?

- YouTube videos and channels (English with Lucy, MmmEnglish)
- Platforms with video courses (Coursera, EdX)
- Social media (Instagram, Facebook, Twitter)
- Mobile applications for learning languages (Duolingo, Preply, Bright, Busuu, Falou)
- Other:

18. Are you willing to pay for access to premium online resources for learning English?

- Yes
- No
- Maybe, depending on the cost and quality of the material

19. How much time per day are you willing to spend on online English courses?

- 30-60 minutes
- 1-2 hours
- 2-3 hours
- More than 3 hours

20. In your opinion, should online learning of English be introduced as a mandatory component of the course (for those who do not study English as a discipline at the college of higher education)?

- Yes, it should become an integral part of the program
- No, it is better to leave it for those who want to
- It should be offered as a choice: traditional form or with an online component
- Other:

21. Which of these innovative online courses do you use in practice?

- *Edera*
- *Antischool*

- *Studyless*
- *Освіторія*
- *Всеосвіта*
- *5percangol*
- *speaknyelviskola*
- I do not use any of them
- Other:

22. Do you agree or disagree with the statement that innovative technologies are now one of the most important factors when it comes to learning English online and offline?

	1	2	3	4	5	
● Strongly agree						● Strongly disagree

23. From which platforms have you learned about innovative online courses, mobile apps, video conferencing for online and offline English language learning?

- *Facebook*
- *Viber*
- *WhatsApp*
- *Messenger*
- *Instagram*
- *Email*
- *Telegram*
- *Youtube*
- Other:

24. How often did your teachers in college use online English <u>courses</u> with you in class?

- Several times a month
- Once a month
- Once every 3 months
- Once every 6 months
- Once in 1 year
- Never
- Other:

25. How often did teachers use <u>mobile apps</u> in class?

- Several times a month
- Once a month
- Once every 3 months
- Once every 6 months
- Once in 1 year
- Never
- Other:

26. How often did teachers use <u>videoconferences</u> in class?

- Once a month
- Once every 3 months
- Once every 6 months

- Once in 1 year
- Never
- Other:

27. Which innovative IT tools aimed at developing English <u>speaking</u> skills are you most familiar with – Buddies, Animate from Audio?

- *Buddies*
- *Animate from Audio*
- *With all of them*
- *None of them*
- *Other:*

28. Which innovative IT tools for <u>reading</u> skills development are you most familiar with?

- *Lit2Go*
- *Unite for Literacy*
- *With all of them*
- *None of them*
- *Other:*

29. Which innovative IT tools aimed at developing <u>critical thinking</u> skills are you most familiar with?

- *Debate AI*
- *Kailo*
- *Oxplore*
- *With all of them*
- *None of them*
- *Other:*

30. Are you familiar with innovative IT aimed at developing <u>creativity, digital literacy, and digital narrative</u>?

- *WebHighlights*
- *Tome*
- *With all of them*
- *None of them*
- *Other:*

31. Are you familiar with innovative IT tools aimed at developing <u>journalism skills, media resources, and creating media-rich</u> online courses?

- *Rosebud Journal*
- *Blush Illustrations*
- *Mixkit*
- *Teachr*
- *With all of them*
- *None of them*
- *Other:*

32. What innovative IT tools aimed at enriching English vocabulary are you familiar with?

- *IELTS Vocabulary*
- *Underline*

- *VocabDice*
- *WordUp*
- *Quizlet*
- *Wordwall*
- Cambridge dictionary
- *With all of them*
- *None of them*
- *Other:*

33. Are you familiar with any innovative IT tools aimed at developing listening?

- *Lyricstraining*
- *ISLcollective*
- *With all of them*
- *None of them*
- *Other:*

34. Do you consider yourself to be the most active user of digital learning games? (Click on the tick mark if yes).

Name of digital learning games	Yes	No	Only some
● *Ask Away*			
● *Brightful Meeting Games*			
● *Stop Disasters*			
● *Yask*			
● *Were wolf Friends*			

- Other:

35. Do you agree that digital tools with learning games should be used only with elementary, middle, and high school students to learn English online?

	1	2	3	4	5	
● Strongly agree						● Strongly disagree

36. Do you agree or disagree that digital tools with learning games should be used only with primary, middle and high school students to learn English offline?

	1	2	3	4	5	
● Strongly agree						● Strongly disagree

37. What level of proficiency do you have with these resources?

	High	Medium	Low
● *Classroom* ● *Zoom* ● *The QR Code Generator* ● *Google Form* ● *Quizlet Learn* ● *Chat GPT* ● *Mentimeter*			

• *Podcastle* • *Presentation GPT* • *Wordwall*			

38. What level of proficiency do you have with these resources?

	High	Medium	Low
• *Magic Digital Badges* • *Loop* • *English tools* • *Scribe* • *TeacherMade* • *Timezap* • *StreamYard* • *Krisp*			

39. Which artificial intelligence do you use in your English learning?

- *Perplexity ai*
- *Chat GPT*
- *Bard/Gemini ai*
- *Claude ai*
- *Humata ai*
- I don't use AI for learning English
- Other:

40. Have you ever used video conferencing, mobile apps, or online courses at school?

- Yes
- Sometimes
- No

If yes, which one?

- Your answer

41. Would you like to see teachers use video conferencing, mobile apps, and online courses in English classes?

- Yes
- Rather yes
- Rather no
- No
- Not sure

42. Do you think video conferencing, mobile apps, and online courses help you learn English?

- Yes
- Rather yes
- Rather no
- No
- Not sure
- Other:

Comments

Your answer:

APPENDIX B

Pros and cons of implementing innovative online courses, mobile applications, video conferencing in online and offline English language classes at the Ferenc Rakoczi II Transcarpathian Hungarian College of Higher Education

My name is Khrystyna Bereksasi. I am a fourth-year English language and literature student at the Ferenc Rákóczi II Transcarpathian Hungarian College of higher education.

I need this information to find out which innovative teaching methods (online courses, mobile applications, video conferencing) are most in demand among the target audience, as well as to understand the advantages and disadvantages of implementing certain technologies from the point of view of students and teachers.

The purpose of this survey is to investigate students' opinions on the implementation of innovative methods of teaching English.

The questionnaire is intended for students of any major except English.

Thank you in advance!

1. Gender
- Male
- Female
- Better not to specify

2. Age
- before 14
- 15–18
- 19–30
- 30–59
- 60+

3. Major
- English language and literature
- Ukrainian language and literature
- German language and literature
- Hungarian language and literature
- Biology
- Chemistry
- Preschool education
- Primary education
- Mathematics
- Computer science
- Geography
- Tourism
- Finance, banking, insurance and stock market
- Accounting and taxation
- International relations, public communications and regional studies
- Natural sciences
- Other:

4. Form of study
- Full-time
- Part-time

- Distance learning
- Free attendance
- Other:

5. Course of study

- I Bachelor
- II Bachelor
- III Bachelor
- IV Bachelor
- I Master
- II Master
- Other:

6. English language proficiency level

- elementary
- intermediate
- advanced
- I have never studied English at all
- Other:

7. Have you used an online course to learn English (e.g. Edera, Studyless, Coursera, EdX, 5percangol, speaknyelviskola, British Council)?

- Yes, I liked it
- Yes, but I didn't like it
- No
- Other:

If yes, which ones?

Your answer

8. Have you used mobile apps to learn English (e.g. Duolingo, Preply, Bright, Busuu, Falou)?

- No
- I used to and still do
- Yes, but not anymore

If yes, which ones?

Your answer

9. Have you used online platforms to communicate with native speakers (e.g. Tandem, HelloTalk, Speeky, Reddit, MyLanguageExchange)?

- Yes, I liked it
- Yes, but I didn't like it
- No

If yes, which ones?

Your answer

10. Which innovative technologies for teaching English would be most interesting to you (you can choose more than one option)?

- Online courses and video lessons
- Mobile applications for learning vocabulary

- Online testing and quizzes
- Video conferences with native speakers
- Other:

11. How often did your teachers in college use online English courses with you in class?

- Several times a month
- Once a month
- Once every 3 months
- Once every 6 months
- Once in 1 year
- Never
- There is no academic discipline "English"
- Other:

12. How often did teachers use mobile apps in class?

- Several times a month
- Once a month
- Once every 3 months
- Once every 6 months
- Once in 1 year
- Never
- There is no academic discipline "English"
- Other:

13. How often did teachers use videoconferences in class?

- Once a month
- Once every 3 months
- Once every 6 months
- Once in 1 year
- Never
- There is no academic discipline "English"
- Other:

14. Which artificial intelligence do you use in your English learning?

- *Perplexity ai*
- *Chat GPT*
- *Bard/Gemini ai*
- *Claude ai*
- *Humata ai*
- I don't use AI for learning English
- Other:

15. Do you think video conferencing, mobile apps, and online courses help you learn English?

- Yes
- Rather yes
- Rather no
- No
- Not sure

- Other:

16. Would you like to see teachers use video conferencing, mobile apps, and online courses, particularly for non-English language courses?

- Yes
- Rather yes
- Rather no
- No
- Not sure
- Other:

17. When teaching other subjects, do teachers use video conferencing, mobile applications and online courses?

- Yes
- Rather yes
- Rather no
- No
- Not sure
- Other:

18. How important do you think learning English is?

	1	2	3	4	5	
Very important						Not important at all

19. If there were classes at the college where they talked about these apps, conferences or courses, would you take part in them?

	1	2	3	4	5	
Yes, I would be interested and would participate						No, I would not participate

20. Have you ever used video conferencing, mobile apps, or online courses at school?

- Yes
- Sometimes
- No

If yes, which one?

Your answer

21. Are you willing to pay for access to premium online resources for learning English?

- Yes
- No
- Maybe, depending on the cost and quality of the material

22. How much time per day are you willing to spend on online English courses?

- 30-60 minutes
- 1-2 hours
- 2-3 hours
- More than 3 hours

23. In your opinion, should online learning of English be introduced as a mandatory component of the course (for those who do not study English as a discipline at the college of higher education)?

- Yes, it should become an integral part of the program
- No, it is better to leave it for those who want to
- It should be offered as a choice: traditional form or with an online component
- Other:

24. Do you agree or disagree with the statement that innovative technologies are now one of the most important factors when it comes to learning English online and offline?

	1	2	3	4	5	
• Strongly agree						• Strongly disagree

25. Are you familiar with the possibilities of using applications, conferences and courses in the study of your major?

- I am familiar with it, but do not use it
- Not familiar and do not use
- Familiar and use it
- Other:

26. Have you ever used video conferencing, mobile apps, or online courses at school?

- Yes
- Sometimes
- No

If yes, which one?

- Your answer

27. What online resources do you use to practice English?

- YouTube videos and channels (English with Lucy, MmmEnglish)
- Platforms with video courses (Coursera, EdX)
- Social media (Instagram, Facebook, Twitter)
- Mobile applications for learning languages (Duolingo, Preply, Bright, Busuu, Falou)
- Other:

28. What are the advantages of using innovative learning technologies?

- Your answer:

29. What are the disadvantages of using innovative teaching technologies?

- Your answer:

30. What difficulties or obstacles have you ever had in using online learning?

- Your answer:

31. Do you have any suggestions for the effective implementation of modern technologies for learning English at our college of higher education?

Your answer:

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