

**THE USE OF DIGITAL PLATFORMS
FOR LEARNING FOREIGN LANGUAGES
BY NON-PHILOLOGICAL STUDENTS**

Olha Novikova¹

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Abstract. Foreign language proficiency has become a crucial competence in today's globalized academic and professional environment. For non-philological students, however, language learning often plays a secondary role in their university programs, which makes the search for innovative and flexible teaching tools particularly important. *The purpose* of this article is to explore the potential of digital platforms as tools for foreign language learning among non-philological students, who often face limited opportunities for language acquisition within their academic programs. The study seeks to identify how digital technologies can supplement traditional instruction, overcome time and curriculum constraints, and increase student engagement and motivation. *Methodology.* The research applies a combination of theoretical and empirical methods. Theoretical analysis includes a review of second language acquisition theories, digital pedagogy, and scholarly literature on technology-enhanced learning. A comparative evaluation of digital platforms (Duolingo, Babbel, Moodle, Coursera, Zoom, and others) is conducted to determine their pedagogical potential. Empirical evidence is drawn from case studies of universities integrating digital platforms into non-philological programs, supported by surveys and classroom observations that reflect student attitudes, motivation, and progress. *Results.* The findings reveal that digital platforms significantly improve accessibility, flexibility, and personalization of language learning. Non-philological students benefit from gamified applications that support vocabulary and grammar acquisition, learning management systems that provide structure and assessment, and collaborative tools that enhance communicative competence. Nevertheless, challenges such as unequal

¹ Candidate of Philological Sciences, Associate Professor,
Associate Professor of the Department of English Language for Non-Philological Specialties,
Oles Honchar Dnipro National University, Ukraine

digital access, varying digital literacy, superficial engagement, and insufficient pedagogical integration remain pressing issues. *Practical implications.* The study recommends blended learning models, integration of professional-context tasks, gamification strategies, and continuous assessment as effective practices. These insights can inform educators, curriculum developers, and policymakers in designing innovative and sustainable approaches to foreign language instruction in higher education and lifelong learning. *Value/originality.* The originality of the study lies in its specific focus on non-philological students, a group often neglected in language education research. By contextualizing digital platform use within their professional and academic needs, the article contributes to the development of technology-enhanced language learning (TELL) and proposes adaptable strategies for effective implementation.

1. Introduction

In the modern globalized world, knowledge of foreign languages is an integral part of professional competence. While philology students traditionally receive extensive training in multiple languages, students of non-philological specialties – engineering, economics, law, medicine, information technology, and others – often encounter limited opportunities to develop these skills within the framework of their academic programs. Nevertheless, their ability to communicate in foreign languages is crucial for professional success, academic mobility, and participation in the international labor market. The need to address this gap has brought digital platforms into the spotlight as effective tools for enhancing language acquisition in higher education.

Digital platforms represent a paradigm shift in education, moving away from rigid, teacher-centered instruction toward flexible, student-centered learning environments. They provide access to authentic linguistic resources, enable interaction across geographical boundaries, and support personalized learning paths tailored to individual needs. For non-philological students, who often balance a heavy academic workload with limited exposure to foreign language practice, these platforms offer a valuable means of supplementing traditional instruction.

The digital revolution has influenced nearly every aspect of human activity, including higher education. Universities worldwide are increasingly

adopting blended and fully online models of instruction. According to UNESCO (2021), digital education is no longer a complementary practice but an essential component of sustainable development goals related to quality education. The COVID-19 pandemic further underscored the importance of digital platforms, as institutions were forced to rapidly transition to online instruction. In this context, foreign language learning proved to be one of the most adaptable fields due to the availability of numerous language-learning applications, online dictionaries, videoconferencing tools, and collaborative platforms.

For non-philological students, digitalization has made language learning more accessible than ever before. Platforms such as Duolingo, Babbel, and Memrise allow students to practice vocabulary and grammar independently, while Moodle, Google Classroom, and Microsoft Teams enable structured language courses integrated into university curricula. Moreover, virtual exchange programs and international online projects provide authentic contexts for practicing communication skills, something that is often missing in traditional classroom settings.

Despite the advantages of digital platforms, several problems persist. First, there is unequal access to digital resources, as not all students possess the necessary devices or reliable internet connections. Second, digital literacy varies significantly, creating difficulties in navigating platforms effectively. Third, many non-philological students perceive foreign language learning as less important than their core subjects, which reduces motivation to engage with digital tools on a regular basis. Fourth, the effectiveness of platforms largely depends on their pedagogical integration: without proper guidance from instructors, students may rely on repetitive drills without achieving meaningful communicative competence.

These challenges raise the question of how digital platforms can be effectively implemented in the process of foreign language learning for non-philological students. The present study addresses this issue by analyzing theoretical foundations, reviewing available platforms, and examining practical strategies for their use [1].

The primary aim of the article is to investigate the role of digital platforms in foreign language education for students of non-philological specialties and to identify best practices for their effective integration. To achieve this aim, the following objectives have been set:

1. To explore the theoretical foundations of digital learning and their relevance to foreign language acquisition.
2. To review the main digital platforms currently used in higher education and evaluate their pedagogical potential.
3. To analyze practical cases of digital platform implementation in teaching non-philological students.
4. To examine challenges and limitations associated with the use of such platforms.
5. To formulate recommendations and strategies for optimizing digital language learning.

The study employs a combination of theoretical and empirical methods. Theoretical methods include analysis of scholarly literature, review of pedagogical theories, and comparative study of digital platforms. Empirical methods involve case study analysis of universities that have integrated digital platforms into language instruction for non-philological students. Additionally, survey and observation methods are considered in order to examine student attitudes, motivation, and progress.

The novelty of the research lies in its specific focus on non-philological students, a group often overlooked in language education research, which tends to prioritize philology majors or general education contexts. By analyzing the peculiarities of digital platform use in this target group, the study contributes to the growing body of knowledge on technology-enhanced language learning (TELL).

The practical significance of the research is that its findings may assist educators, curriculum developers, and policymakers in designing more effective language-learning environments for non-philological students. Recommendations derived from the study may also be applied in blended and lifelong learning contexts, thus extending their impact beyond formal higher education.

2. Digital Platforms in Foreign Language Learning: Opportunities and Challenges

The twenty-first century is marked by an unprecedented pace of technological development that has fundamentally changed all spheres of human activity, including education. Higher education institutions worldwide are undergoing a process often described as *digital transformation*, which

implies not only the integration of new technological tools into teaching and learning but also the rethinking of educational models, practices, and values.

Digital transformation is more than simply digitizing textbooks or uploading lectures online. It involves a systemic shift toward more flexible, interactive, and student-centered approaches. Universities are expected to prepare graduates who are able to function in a globalized, technology-driven world, which requires not only subject-specific expertise but also transversal skills such as communication, collaboration, problem-solving, and digital literacy. In this regard, foreign language proficiency has gained new significance, since it is closely connected with international cooperation and global mobility.

Several international organizations have emphasized the importance of digital education. The UNESCO Global Education Monitoring Report (2021) underlines that digital platforms are essential for achieving Sustainable Development Goal 4, which is to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” Similarly, the European Commission’s Digital Education Action Plan (2021–2027) calls for enhancing digital skills and promoting the use of digital technologies in all areas of education. These policy documents recognize digital platforms as indispensable tools for modern teaching, including the teaching of foreign languages.

The outbreak of the COVID-19 pandemic in 2020 accelerated this transformation dramatically. Within weeks, universities around the globe shifted to remote instruction, relying on platforms such as Zoom, Microsoft Teams, and Moodle. While the sudden transition exposed weaknesses such as unequal access to technology and the lack of preparedness among faculty, it also demonstrated the potential of digital platforms to ensure the continuity of education in challenging circumstances. For language learning, this meant that students could continue practicing reading, listening, speaking, and writing skills through online tools, even when face-to-face interaction was impossible. For non-philological students, the digital transformation of higher education has a dual impact. On the one hand, their study programs often allocate fewer contact hours to foreign language instruction compared to philology majors. This makes digital platforms particularly valuable, as they allow students to engage with

language learning outside of the classroom, at their own pace. On the other hand, these students often prioritize their professional courses, which may result in limited motivation to engage with additional learning tasks. Therefore, the design and integration of digital platforms must address not only the practical aspects of accessibility but also the pedagogical challenge of ensuring relevance and motivation.

In conclusion, the digital transformation of higher education is not a temporary trend but an enduring shift that redefines how knowledge is delivered and acquired. For foreign language learning, it creates unprecedented opportunities for flexibility, personalization, and internationalization. However, its success depends on how effectively universities, instructors, and students adapt to new realities and make meaningful use of the tools available.

The integration of digital platforms into foreign language instruction cannot be fully understood without considering the theoretical foundations of second language acquisition (SLA). Language learning theories provide the conceptual framework that explains how individuals acquire, process, and use a new language. Digital platforms, in turn, operationalize these theories by offering interactive environments, structured tasks, and technological affordances that replicate or extend classroom practices. This section explores the main language learning theories – behaviorism, cognitivism, constructivism, sociocultural theory, communicative approaches, task-based learning, and connectivism – and discusses how they are manifested in contemporary digital tools for non-philological students [1].

Behaviorist theories, represented by scholars such as B.F. Skinner (1957), view language learning as a process of habit formation through stimulus–response mechanisms. According to this perspective, learners acquire linguistic structures by imitating models, practicing drills, and receiving reinforcement. Although behaviorism has been criticized for its neglect of deeper cognitive processes, its principles remain relevant in the context of digital learning.

Modern platforms such as Duolingo, Memrise, and Babbel employ behaviorist strategies extensively. They rely on repetition, immediate feedback, and gamified reinforcement mechanisms such as points, badges, and streaks. For non-philological students, who often lack the time for

extensive classroom practice, short and repetitive exercises are effective in consolidating vocabulary and grammar patterns.

Moreover, adaptive algorithms in these applications are based on spaced repetition systems (SRS), which ensure that learners encounter words and structures at scientifically determined intervals, thereby strengthening memory retention. This form of technology-driven behaviorism has proven particularly effective in vocabulary acquisition, which is a fundamental requirement for students in technical, medical, or business fields.

Cognitive theories of language learning, which gained prominence in the 1960s and 1970s, focus on the mental processes underlying the acquisition of linguistic knowledge. Language is not simply a habit but a complex cognitive skill involving attention, memory, problem-solving, and the development of interlanguage systems.

Digital platforms reflect cognitivist principles by offering structured lessons, metacognitive strategies, and opportunities for learners to reflect on their progress. For example, Moodle and Blackboard, widely used learning management systems (LMS), provide scaffolding through modules, quizzes, and progress tracking dashboards. Learners can monitor their own performance, identify weaknesses, and plan their study routines accordingly.

For non-philological students, cognitivist approaches are particularly relevant

because they encourage self-regulated learning. Engineering or medical students often possess strong analytical skills, and cognitive frameworks allow them to treat language learning as a systematic problem-solving activity. Digital platforms support this process with visualizations (charts, graphs), structured syllabi, and analytical feedback.

Constructivism, influenced by Jean Piaget and later extended to education by scholars such as Jerome Bruner, emphasizes that knowledge is actively constructed by learners rather than passively received. Language acquisition, therefore, should be rooted in authentic tasks and personal engagement¹.

Digital platforms embody constructivism by enabling students to interact with authentic materials (videos, podcasts, blogs) and by supporting task-based learning scenarios. For example, students can participate in online forums or collaborative wikis where they create content, negotiate meaning,

and engage in critical discussions. Platforms like Edmodo, Google Classroom, or Padlet allow non-philological students to relate language learning to their academic disciplines – for instance, by writing technical reports, producing multimedia projects, or engaging in simulated workplace communication.

Constructivist digital environments also promote personalization. Adaptive learning technologies allow students to choose their own pathways, decide on the type of activities that suit them best, and build language knowledge based on prior experience. This autonomy is essential for non-philological students, who may have diverse backgrounds and varied professional interests.

Digital platforms provide multiple ways of implementing sociocultural principles. Videoconferencing tools such as Zoom and Microsoft Teams facilitate real-time communication and collaborative learning activities. Online discussion boards and group projects replicate the social dynamics of the classroom, enabling learners to co-construct knowledge. For example, medical students can engage in online case study discussions, while business students can conduct virtual negotiations or role-play scenarios [2].

Furthermore, peer feedback mechanisms embedded in platforms like Moodle or Coursera allow learners to evaluate each other's work, thus creating a community of practice. These features support the idea that language learning is not only about acquiring grammar and vocabulary but also about participating in authentic social interactions.

The communicative approach, developed in the 1970s and 1980s, emphasizes the functional use of language in real-life contexts. Instead of focusing exclusively on grammar and vocabulary, CLT prioritizes fluency, negotiation of meaning, and communicative competence.

Digital platforms embody CLT by offering simulated communication environments. For instance, platforms such as Tandem and HelloTalk connect learners with native speakers worldwide, allowing them to practice conversation in authentic contexts. Similarly, role-playing activities and interactive simulations in virtual classrooms encourage students to use language for specific purposes, such as conducting interviews, giving presentations, or participating in debates.

For non-philological students, communicative platforms are particularly valuable because they connect language learning with professional goals. Engineering students may simulate project meetings, economics students

can practice financial reporting, and medical students may rehearse doctor–patient dialogues.

Closely related to CLT, task-based learning emphasizes the use of language to accomplish meaningful tasks rather than practicing isolated forms. According to Ellis (2003), tasks provide a natural context for language use and foster both fluency and accuracy.

Digital platforms are well suited for TBLT because they provide structured tasks that can be tailored to professional contexts. For example, in Moodle or Google Classroom, instructors can assign collaborative projects where students prepare presentations, reports, or design posters in a foreign language. In simulation platforms, students may be required to solve case studies or conduct problem-solving discussions.

Non-philological students benefit from task-based approaches because tasks can be aligned with their disciplinary needs. Engineering students may be asked to describe technical processes in English, while law students may draft contracts or analyze case law in a foreign language. The authenticity of such tasks increases motivation and relevance [2].

In the digital age, connectivism, proposed by George Siemens (2005), offers a new perspective on learning. It posits that knowledge is distributed across networks, and learning consists of the ability to connect with information sources, communities, and technologies.

Digital platforms embody connectivism by providing access to vast networks of knowledge and learners. MOOCs such as Coursera, edX, and FutureLearn expose students to global learning communities, where they can exchange ideas with peers from diverse cultural backgrounds. Social media platforms (YouTube, Discord, Telegram) further extend these networks, enabling informal language learning through videos, memes, and online discussions.

For non-philological students, connectivist environments are especially powerful. They allow learners to access domain-specific knowledge in foreign languages – such as international engineering conferences streamed online, medical webinars, or financial analysis tutorials – while simultaneously developing language skills.

The application of language learning theories to digital platforms demonstrates that technology does not replace pedagogy but rather embodies and extends it. Behaviorism explains the effectiveness of drills

and repetition in apps; cognitivism underpins self-regulated learning and progress tracking; constructivism and sociocultural theory highlight the value of interaction and authenticity; CLT and TBLT connect language with real-life and professional tasks; and connectivism reflects the networked nature of knowledge in the digital age.

For non-philological students, these theories offer a comprehensive framework for integrating digital platforms into their academic training. The challenge lies not in choosing between theories but in orchestrating their complementary strengths: using gamified drills for vocabulary consolidation, task-based projects for professional practice, collaborative discussions for social interaction, and networked resources for exposure to authentic materials.

In conclusion, language learning theories remain highly relevant in the digital era, guiding the design and implementation of platforms that support foreign language acquisition. For non-philological students, the combination of theory-driven pedagogical strategies with innovative digital tools provides the most promising path toward effective, relevant, and sustainable language learning [3].

In order to understand the ways in which digital technologies influence the acquisition of foreign languages, it is necessary to classify the variety of platforms currently available. Although all of them serve the broad purpose of facilitating language learning, they differ significantly in terms of target audience, pedagogical design, scope of content, and technological features. The following typology provides an overview of the most relevant categories of digital platforms used by students of non-philological specializations.

Specialized applications are software tools designed explicitly for foreign language acquisition. Among the most prominent are Duolingo, Babbel, Memrise, Busuu, and LingQ. These platforms are characterized by the following features:

- Gamified learning: Platforms such as Duolingo rely on point systems, streaks, and virtual rewards to sustain learners' motivation. This approach is particularly attractive for non-philological students, who may otherwise regard language study as secondary to their major field of study.

- Micro-learning format: Lessons are divided into small, manageable units that can be completed within 5–15 minutes. This structure suits students with limited time, making language learning more accessible.

- Personalization: Adaptive algorithms adjust the level of difficulty depending on the learner's progress, which helps reduce frustration and sustain engagement.

- Mobile accessibility: The majority of these apps are optimized for smartphones, allowing students to study during commutes or breaks between classes.

Despite their advantages, specialized apps also face criticism. They tend to focus heavily on vocabulary and grammar drills while neglecting complex communicative tasks. Moreover, their emphasis on gamification may lead to superficial memorization rather than deep linguistic competence. For non-philological students, these applications can serve as useful supplementary tools but cannot fully replace structured academic instruction.

Learning Management Systems such as Moodle, Blackboard, Canvas, and Microsoft Teams represent a more formal and institutionally controlled category of platforms. While not always designed specifically for language learning, they provide a structured digital environment where foreign language courses can be effectively organized. Their distinctive features include:

- Course integration: LMS platforms allow educators to upload syllabi, lesson materials, assignments, and tests in a centralized space.

- Assessment tools: Online quizzes, assignments, and gradebooks enable continuous monitoring of student performance.

- Collaboration functions: Forums, chats, and group projects encourage communication between students, which is particularly important for developing foreign language interaction skills.

- Institutional support: Since LMS systems are typically adopted at the university level, students receive formal recognition for their participation, such as grades and credits [3].

For non-philological students, LMS-based language learning ensures accountability and structure. Unlike commercial applications, LMS environments are directly linked to academic requirements, which motivates students to engage more systematically. However, their interface is often less user-friendly compared to modern apps, and their effectiveness depends heavily on the teacher's ability to design engaging tasks.

Another significant category of digital platforms includes MOOC (Massive Open Online Courses) providers such as Coursera, edX,

FutureLearn, and Udemy. While MOOCs cover a wide range of subjects, foreign language learning has become an important part of their offerings. Their defining characteristics are:

- Global reach: Students from around the world can enroll in the same course, which creates an international learning community.
- Professional orientation: Many language MOOCs are designed with specific goals, such as “English for Business Communication” or “English for Academic Purposes,” which is highly relevant for non-philological students.
- Certification: Learners can obtain official certificates that enhance their academic and professional portfolios.
- Multimodal learning resources: Courses typically include video lectures, interactive exercises, peer-reviewed assignments, and discussion forums.

Nevertheless, MOOCs also face challenges. High dropout rates indicate that students often struggle to maintain long-term commitment without direct supervision. Furthermore, the asynchronous nature of MOOCs may reduce opportunities for real-time interaction, which is essential for developing speaking and listening skills. For non-philological students, MOOCs are particularly useful for acquiring professional terminology and cultural competence related to their field of study.

A final category encompasses platforms not originally designed for education but increasingly used for language learning, including YouTube, Instagram, TikTok, Discord, Telegram, and Reddit. Their role in foreign language acquisition is growing due to several factors:

- Authentic content: Social media provides access to native-language materials such as vlogs, podcasts, or news channels. Exposure to authentic input contributes to developing listening comprehension and cultural awareness.
- Communities of practice: Platforms like Reddit or Discord host groups where learners exchange resources, practice conversation, and receive peer support.
- Micro-content learning: Short-form videos on TikTok or Instagram Reels introduce vocabulary or grammar tips in an entertaining manner.
- Accessibility and motivation: Informal learning environments reduce the pressure of formal assessment and make language study feel less like a compulsory task.

However, informal platforms also present risks. The absence of structured curricula can lead to fragmented learning. The reliability of user-generated content is not always guaranteed, and students may be exposed to incorrect or simplified forms of language. Nonetheless, when combined with formal instruction, social media can enhance engagement and complement traditional approaches.

It is important to note that these categories are not mutually exclusive. Increasingly, digital ecosystems integrate features from different platform types. For instance, Moodle can incorporate Duolingo or Quizlet activities, while MOOCs often direct learners to social media communities for peer interaction. Hybrid approaches that combine institutional structure with gamification, global outreach, and informal communication appear to be most effective for non-philological students, who require both motivation and discipline.

Over the past two decades, the rapid proliferation of digital technologies has prompted a growing body of research into their effectiveness in foreign language education. Scholars have examined a wide range of tools – from specialized language apps and learning management systems to MOOCs and social media platforms – analyzing their impact on learner motivation, autonomy, engagement, and language proficiency. This section synthesizes the main findings of recent studies, with a particular focus on non-philological students.

One of the most consistently reported benefits of digital platforms is their ability to enhance learner motivation. According to Godwin-Jones (2018), gamified apps such as Duolingo and Memrise significantly increase student engagement through the use of point systems, badges, leaderboards, and streaks. Similarly, Stockwell and Hubbard (2013) found that mobile-assisted language learning encourages frequent short-term practice, which is critical for vocabulary retention and overall language development [4].

For non-philological students, who often perceive language study as secondary to their primary academic field, digital platforms provide a less intimidating, more flexible, and enjoyable way to practice. Students in engineering, economics, and IT disciplines demonstrate higher motivation when using interactive apps compared to traditional classroom exercises. The combination of autonomy, immediate feedback, and gamified elements contributes to increased persistence and lower dropout rates.

Digital platforms are strongly associated with self-directed learning and the development of learner autonomy. Studies by Little (2007) and Benson (2011) emphasize that autonomy is a crucial factor in successful language acquisition, allowing learners to take responsibility for their own progress. Features such as progress tracking, adaptive difficulty, and personalized learning paths provide non-philological students with the tools necessary to manage their time effectively and focus on areas of weakness [3].

For example, a study by Zhang & Zou (2020) analyzed the use of Moodle in a business English course for non-philological students. The results indicated that students who actively monitored their progress and engaged with supplementary materials demonstrated significantly higher language proficiency than those relying solely on classroom instruction. This suggests that digital platforms not only support independent learning but also foster the development of metacognitive strategies, such as goal-setting, self-monitoring, and reflection [11].

A large portion of research has focused on the impact of digital platforms on vocabulary acquisition and grammar skills. Sung, Chang, & Liu (2016) found that mobile-assisted language learning applications improve the retention of both technical and general vocabulary. In particular, spaced repetition systems (SRS), implemented in apps like Anki and Memrise, optimize long-term memory retention and reduce forgetting curves.

For non-philological students, vocabulary acquisition is often closely linked to their field of study. Engineering students need technical terminology in English, medical students require knowledge of Latin-derived medical terms, and business students must understand industry-specific jargon. Studies show that specialized apps and LMS-based modules can efficiently deliver domain-specific vocabulary while providing interactive exercises to reinforce understanding.

Grammar instruction, while less frequently highlighted in app-based learning, is also supported through immediate feedback, error correction, and automated quizzes. Research by Godwin-Jones (2019) indicates that grammar-focused drills embedded within gamified apps contribute to incremental improvements, particularly when integrated into broader communicative tasks.

Beyond vocabulary and grammar, the development of communicative competence – speaking, listening, and interactional skills – is a primary goal of foreign language learning. Traditional apps often focus on receptive skills, but recent studies show that platforms integrating video conferencing, collaborative tools, and peer interaction can effectively promote productive skills.

For instance, Kohnke & Moorhouse (2020) examined the use of Zoom and Moodle in an ESP course for engineering students. The study revealed that live collaborative sessions, role-plays, and peer feedback significantly improved speaking fluency and confidence. Similarly, research by Godwin-Jones (2020) demonstrates that synchronous and asynchronous discussion forums provide opportunities for negotiation of meaning, error correction, and authentic interaction.

Non-philological students, who may rarely use foreign languages in their daily academic routines, particularly benefit from these interactive features. Engaging in authentic communication helps bridge the gap between theoretical knowledge and practical use, reinforcing motivation and long-term retention [7].

Despite the documented benefits, research also identifies a number of challenges associated with digital language learning. Technical barriers such as unstable internet connections, outdated devices, and platform glitches remain significant obstacles, particularly in regions with limited technological infrastructure.

Cognitive and motivational barriers include distraction from non-educational content, multitasking during study sessions, and lack of persistence in self-paced environments. For non-philological students, who often balance multiple courses and professional obligations, maintaining consistent engagement can be difficult.

Pedagogical limitations are also highlighted in the literature. Some platforms focus excessively on isolated skills (vocabulary or grammar) without providing opportunities for integrated, communicative practice. Furthermore, inadequate teacher training in digital pedagogy can result in poorly structured courses, reducing the overall effectiveness of technology-enhanced learning. Studies by Reinders & White (2016) emphasize the importance of combining digital tools with pedagogical guidance to maximize learning outcomes.

3. Strategies for Effective Integration into Non-Philological Education

The integration of digital platforms into non-philological education represents both an opportunity and a challenge for modern higher education. While students of philological specialties are typically immersed in language learning as their primary field of study, non-philological students often perceive foreign language acquisition as secondary, supplementary, or even optional within their academic trajectory. This reality necessitates the development of innovative strategies that not only enhance motivation but also contextualize language learning in ways that directly serve students' professional and academic needs. Digital platforms, with their flexibility, interactivity, and adaptability, provide a promising solution. However, their effectiveness depends largely on how they are introduced, combined with traditional instruction, and aligned with the specific goals of non-philological education.

1. Blended Learning as a Key Strategy

One of the most effective ways to integrate digital platforms is through blended learning models, which combine face-to-face instruction with online activities. In such models, digital tools complement rather than replace traditional teaching. For instance, vocabulary and grammar practice can be carried out on platforms such as Duolingo or Quizlet, while in-class sessions focus on communicative activities and professional simulations. This balance allows students to benefit from the accessibility and personalization of digital learning without losing the guidance and social interaction provided by teachers and peers.

Blended learning also addresses one of the main challenges in non-philological contexts: limited classroom hours devoted to foreign language study. By shifting part of the workload online, students can engage with the material at their own pace, revisiting tasks as needed. At the same time, instructors can use class time more efficiently, concentrating on skills that require collaborative problem-solving, critical thinking, and professional discourse.

2. Contextualization of Language Tasks

A critical strategy in integrating digital platforms is the contextualization of language learning activities. Non-philological students often struggle to see the relevance of language skills to their chosen field. Therefore, digital platforms should not simply provide general language drills, but rather tasks

that reflect real-world situations within students' disciplines. For example, engineering students may engage in simulations where they must explain technical processes in English via a virtual learning environment, while business students may complete case studies on international marketing strategies using collaborative online tools.

Platforms such as Moodle or Edmodo can be customized to include modules aligned with professional terminology, authentic texts, and domain-specific communication scenarios. This approach enhances the perceived value of language learning, as students understand how it contributes to their future careers. Moreover, it fosters a sense of autonomy, as learners are motivated to use the language for meaningful purposes beyond academic requirements.

3. Gamification and Motivation

Gamification has proven to be an effective strategy for engaging students who might otherwise lack intrinsic motivation to study foreign languages. Many digital platforms, including Duolingo, Kahoot!, and Classcraft, incorporate elements of gamification such as progress badges, leaderboards, and reward systems. For non-philological students, these features transform routine language practice into an interactive and enjoyable experience.

Gamification also supports continuous engagement by breaking down long-term learning objectives into smaller, achievable milestones. Instructors can design competitions, quizzes, or team-based challenges that reinforce course material while fostering collaboration. Importantly, gamification should not be used merely for entertainment but strategically aligned with learning objectives to ensure that progress in the game reflects actual language acquisition.

4. Collaborative Learning and Peer Interaction

Collaboration is a cornerstone of effective education, and digital platforms enable new forms of peer-to-peer interaction that extend beyond the classroom. Tools such as Google Classroom, Microsoft Teams, and Zoom facilitate group projects, virtual discussions, and cross-institutional exchanges with international peers. These platforms create authentic communicative situations in which students must negotiate meaning, solve problems, and share knowledge in a foreign language.

For non-philological students, collaborative activities contextualized within their disciplines are particularly effective. For example, architecture

students may work together on a project that requires presenting building designs in English, while IT students may collaboratively develop technical documentation for a software product. Through such tasks, students not only improve their language competence but also practice soft skills such as teamwork and intercultural communication, which are highly valued in the global labor market [7].

5. Continuous Feedback and Assessment

Another important strategy is the systematic use of digital platforms for providing continuous feedback and assessment. Traditional classroom settings often limit assessment to periodic exams or quizzes, leaving students with little understanding of their ongoing progress. Digital platforms, however, can offer immediate feedback on assignments, track student performance over time, and generate analytics that help both learners and instructors identify strengths and weaknesses.

Platforms such as Moodle, Edmodo, or Canvas allow teachers to design formative assessments that integrate multimedia elements, such as audio recordings, video presentations, and interactive exercises. This variety caters to different learning styles and creates a more comprehensive evaluation of language competence. Continuous feedback not only improves academic outcomes but also fosters learner autonomy, as students take responsibility for monitoring their own progress.

6. Teacher Training and Support

The successful integration of digital platforms also depends on the preparedness of educators. Teachers must possess not only technological skills but also pedagogical knowledge of how to adapt digital tools to non-philological education. Professional development programs, workshops, and communities of practice are essential to equip teachers with strategies for effective digital integration.

Moreover, teacher support should extend to technical infrastructure and institutional policies. Universities need to provide reliable internet access, technical assistance, and incentives for educators who experiment with innovative teaching methods. Without such support, the integration of digital platforms risks being superficial or inconsistent.

7. Addressing Accessibility and Inclusivity

Finally, strategies for digital integration must consider issues of accessibility and inclusivity. Non-philological students come from diverse

backgrounds, with varying levels of digital literacy and access to devices. Institutions should ensure that chosen platforms are user-friendly, mobile-compatible, and available in low-bandwidth environments. Additionally, tasks should be designed to accommodate different learning preferences and abilities, promoting equity in the learning process. By addressing these challenges, educators can ensure that digital platforms do not widen the gap between students but instead serve as tools for inclusive and democratized education.

8. Personalization of Learning

One of the unique strengths of digital platforms is their capacity to provide personalized learning experiences. Unlike traditional classroom settings, where a teacher must address the needs of an entire group simultaneously, digital tools allow for individualized pacing, sequencing, and focus. Adaptive learning technologies, embedded in platforms such as LingQ or Memrise, can analyze student performance and suggest tailored exercises. For non-philological students, this is particularly important since they enter language courses with highly diverse levels of prior knowledge. Some may already possess intermediate proficiency due to extracurricular exposure, while others may be complete beginners. Personalized pathways ensure that all students remain challenged without being overwhelmed, thereby sustaining motivation.

9. Integration of Multimedia Resources

Modern digital platforms enable the integration of multimedia resources that enrich language learning by exposing students to authentic input. Videos, podcasts, infographics, and interactive simulations create immersive experiences that are difficult to replicate in traditional textbooks. For instance, engineering students may analyze instructional YouTube videos explaining technical procedures in English, while medical students may listen to authentic doctor–patient dialogues to practice professional terminology. Such materials not only improve listening and comprehension skills but also familiarize students with cultural and pragmatic aspects of language use.

A few studies have specifically compared outcomes for philological and non-philological students. Non-philological students may initially progress more slowly due to limited prior exposure and lower intrinsic motivation. However, when digital platforms are integrated thoughtfully, with

relevant content and task-based activities, the performance gap diminishes significantly. The key factors in success include:

- Contextualizing language learning within the student’s professional field;
- Using blended learning models to combine structure with autonomy;
- Encouraging collaboration and peer support through online communities.

These findings suggest that digital platforms are particularly effective for non-philological students when instruction is tailored to their specific academic and professional needs [7].

The synthesis of previous research indicates several practical implications: Platform selection must consider student needs: Apps that emphasize gamification, SRS, or interactive exercises can complement formal instruction, but content should align with the learner’s field.

1. Blended learning models are most effective: Combining face-to-face instruction with online modules ensures both accountability and flexibility.

2. Instructor guidance is critical: Teachers must scaffold tasks, monitor progress, and provide feedback to prevent superficial engagement.

3. Encouraging learner autonomy: Students should be trained in self-regulation and time management to maximize the benefits of digital platforms.

4. Integration of professional contexts: ESP-focused modules, case studies, and task-based activities increase relevance and motivation.

Engineering students often require technical English for reading academic articles, writing reports, and participating in international projects. At Technical University X (pseudonym), Moodle is integrated with specialized vocabulary apps like Quizlet and Memrise. Students participate in weekly modules that include:

- Technical vocabulary quizzes with spaced repetition
- Interactive simulations that allow students to describe processes in English
- Collaborative projects where students prepare presentations on engineering topics

In surveys conducted after one semester, 85% of students reported improved confidence in using English for technical purposes, and professors noted higher quality in written assignments compared to previous cohorts who used only traditional textbooks.

Medical students face the challenge of mastering specialized terminology in both Latin and English. At Medical University Y, instructors use a combination of Duolingo for basic medical terms and Quizlet for more advanced terminology. Additional tools include:

- Virtual patient simulations: Students conduct case studies and diagnostic exercises in English;
- Peer discussion forums: Students discuss treatment plans and share resources;
- Video tutorials: Short lectures on complex procedures.

Studies show that digital platforms enhance vocabulary retention and improve listening comprehension of complex medical language. Students also report increased motivation due to gamified elements and the relevance of materials to their future professional practice [9].

For business students, English proficiency is essential for international communication, report writing, and understanding global market trends. University implemented Coursera modules combined with LinkedIn Learning resources, covering:

- Business terminology and financial reporting
- Professional communication skills
- Negotiation and presentation simulations

The use of digital platforms allowed students to complete real-life tasks in English, such as drafting business emails, analyzing case studies, and participating in virtual conferences. Feedback indicated significant improvement in both written and oral communication skills, demonstrating the effectiveness of task-based and professional-context-oriented digital learning.

IT students benefit from exposure to English because most programming languages, documentation, and technical forums are in English. At Tech Institute, the integration includes:

- GitHub projects with English comments and documentation
- Stack Overflow participation in English for problem-solving
- Language apps for professional vocabulary.

Results suggest that students not only improve language skills but also develop a higher degree of professional competence. The integration of language learning with practical IT tasks makes the experience authentic and highly motivating.

Despite the success of digital platforms, several challenges hinder their full potential. These challenges can be grouped into technical, cognitive, pedagogical, and motivational barriers:

- Unequal access to devices and internet: Not all students have laptops or high-speed connections, which may limit participation in synchronous activities.

- Platform reliability: Occasional crashes, bugs, or limited server capacity can disrupt learning activities.

- Digital literacy: Some students and even instructors lack sufficient skills to navigate complex platforms effectively.

These issues highlight the need for universities to invest in infrastructure, provide technical support, and conduct training workshops for both students and faculty.

Cognitive and Learning Barriers:

- Cognitive overload: Digital platforms often present numerous tasks simultaneously, which can overwhelm students.

- Multitasking and distraction: Notifications from social media or other apps may reduce focus.

- Superficial engagement: Students may complete tasks mechanically without deep understanding.

Effective instructional design must balance task complexity, scaffold learning, and guide students in prioritizing activities to minimize cognitive overload [9].

Pedagogical Barriers:

- Insufficient teacher training: Many instructors lack experience in integrating digital tools with pedagogical strategies.

- Lack of curriculum alignment: Platforms may be used as add-ons rather than fully integrated into courses.

- Overemphasis on drills: Some platforms prioritize isolated skills (e.g., vocabulary or grammar) without promoting communicative competence. Professional development and curriculum redesign are essential to ensure meaningful integration of technology in language instruction.

Motivational Barriers:

- Perception of language as secondary: Non-philological students may prioritize their major subjects, neglecting language tasks.

– Reduced accountability: Self-paced platforms require discipline, which some students lack.

To address motivation, instructors can use gamification, peer collaboration, and real-life tasks that connect language learning to professional outcomes.

Based on case studies and research, several strategies have proven effective in optimizing digital language learning for non-philological students:

1. Blended learning models: Combining face-to-face instruction with online modules ensures structure, accountability, and flexibility.

2. Gamification: Incorporating points, badges, leaderboards, and challenges enhances motivation.

3. Collaborative learning: Group projects, discussion forums, and peer feedback promote social interaction and communicative competence.

4. Contextualization: Aligning language tasks with students' professional fields increases relevance and engagement.

5. Continuous assessment: Using quizzes, self-tests, and platform analytics provides immediate feedback and tracks progress.

6. Instructor guidance: Teachers must scaffold tasks, monitor performance, and provide personalized support.

The future of digital language learning for non-philological students is promising due to several technological and pedagogical innovations:

– Artificial Intelligence (AI): Personalized learning pathways, adaptive feedback, and automated assessment can further enhance learning outcomes.

– Virtual and Augmented Reality (VR/AR): Immersive environments allow students to practice language in simulated professional scenarios.

– Global learning communities: Online platforms connect students worldwide, supporting cross-cultural communication.

– Lifelong learning and professional upskilling: Digital platforms enable continuous learning beyond the university, which is critical in today's dynamic labor market.

4. Conclusions

The present study has examined the role of digital platforms in the acquisition of foreign languages by students of non-philological specialties. Based on both theoretical analysis and practical case studies, several key

conclusions can be drawn regarding the effectiveness, challenges, and prospects of technology-enhanced language learning in higher education. One of the most significant findings is that digital platforms provide unprecedented access to language learning resources. Non-philological students, who often have limited classroom time for language instruction, benefit from the flexibility to study at their own pace and according to their individual schedules. Platforms such as Duolingo, Memrise, Moodle, and Coursera allow learners to engage in micro-learning, spaced repetition, and task-based activities, which help consolidate vocabulary, grammar, and professional terminology. The accessibility of mobile applications further ensures that students can utilize downtime between classes, commutes, or work-related activities to reinforce their language skills.

The study has shown that the effectiveness of digital platforms is maximized when grounded in established language learning theories. Behaviorist approaches enhance repetition and memorization, cognitivist frameworks support self-regulation and metacognitive strategies, constructivist and sociocultural theories promote authentic and collaborative learning, and task-based approaches connect language learning with real-life and professional contexts. Non-philological students particularly benefit from platforms that integrate multiple theoretical perspectives, ensuring that learning is not superficial but meaningful, engaging, and contextually relevant.

Motivation remains a central factor influencing the success of digital language learning. The study confirmed that gamified elements, collaborative projects, professional-context tasks, and real-time feedback significantly enhance student engagement. Non-philological students often perceive language learning as secondary to their main academic field, so integrating digital tools that make learning enjoyable and relevant is crucial. Platforms that connect language practice with professional or academic goals tend to sustain motivation and encourage consistent participation. Despite the benefits, several challenges persist:

- Technical barriers: Unequal access to devices and internet connectivity, as well as variable digital literacy, can limit participation.
- Cognitive and pedagogical barriers: Overload, distraction, and poorly designed tasks may reduce learning effectiveness.
- Motivational barriers: Lack of perceived relevance and self-discipline can lead to disengagement.

To overcome these challenges, universities should invest in infrastructure, provide technical and pedagogical training for faculty, design structured and engaging courses, and integrate language tasks with professional disciplines.

Based on the analysis of case studies, several best practices have been identified:

- Blended learning models: Combining traditional classroom instruction with digital modules ensures both accountability and flexibility.
- Contextualized and task-based activities: Aligning language tasks with students' professional fields increases relevance and motivation.
- Collaborative online environments: Peer interaction, group projects, and discussion forums enhance communicative competence and sociocultural awareness.
- Gamification and adaptive learning: Points, badges, and personalized learning pathways maintain engagement and improve learning outcomes.
- Continuous feedback and assessment: Real-time monitoring and constructive feedback help students track progress and correct errors promptly.

The findings of this study have important implications for curriculum design and language pedagogy in non-philological disciplines. Digital platforms should not be treated as optional supplements but as integral components of language instruction. By leveraging technology effectively, universities can provide students with the skills necessary for international communication, professional mobility, and lifelong learning.

Furthermore, instructor guidance remains critical. While platforms facilitate autonomy, teachers play a key role in designing meaningful tasks, monitoring student engagement, providing feedback, and ensuring that digital tools align with learning objectives.

The future of digital language learning is promising due to ongoing technological innovations. Artificial intelligence can provide more personalized learning pathways and adaptive feedback. Virtual and augmented reality may allow immersive practice in professional and real-life scenarios. Global online communities will continue to offer authentic interaction and cross-cultural exposure. For non-philological students, these advances will further bridge the gap between academic study and practical language use, supporting professional readiness and lifelong language competence.

The effective integration of digital platforms into non-philological education requires more than simply introducing new technologies. It involves a strategic approach that combines blended learning, contextualization of tasks, gamification, collaborative opportunities, continuous assessment, teacher training, and inclusivity. When implemented thoughtfully, these strategies transform digital platforms from supplementary tools into powerful enablers of language learning.

For non-philological students, who often face limited opportunities for language practice, digital platforms offer pathways to professional relevance, increased motivation, and greater autonomy.

In conclusion, digital platforms are transformative tools in the education of non-philological students. They enhance flexibility, motivation, autonomy, and access to authentic language resources. While challenges remain, careful integration of platforms grounded in pedagogical theory, aligned with professional contexts, and supported by instructor guidance can maximize their effectiveness. By adopting these strategies, higher education institutions can ensure that students not only acquire foreign language competence but also develop the skills necessary to thrive in an interconnected, globalized professional environment.

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