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FUTURE PRESCHOOL TEACHERS' DIGITAL SKILLS DEVELOPMENT WITHIN DISCIPLINE "MODERN TECHNOLOGIES OF TEACHING A FOREIGN LANGUAGE TO PRESCHOOL CHILDREN"

Abstract. The article is devoted to an overview of the development of the digital skills of future preschool teachers within mastering the discipline "Modern technologies of teaching a foreign language to preschool children" in terms of their professional training. The educational potential of utilising various digital tools in foreign language teaching is presented. The influence of their use on future preschool teachers, in general, and their development of digital skills, specifically, is identified. The article employs theoretical research methods, including synthesis, generalisation, and literature review, to address the issue and distinguish between the terms of digital literacy, digital competency and digital skills. Additionally, the author's own experience was utilised to describe digital tools and their applications in teaching foreign languages to preschool children. Categorised into numerous groups based on their purpose, the author reveals the didactic value of digital tools in language learning used to reinforce vocabulary, grammar, pronunciation, speaking and listening skills, provide immediate feedback, prompts for speaking, comprehension, pronunciation training, warm-up, motivational element, context-setting activity, introduce new vocabulary or communicative situations, multisensory and experiential learning, promote children's engagement through play-based learning, and foster children's imagination and linguistic interaction. Among the analysed tools are those aimed at generating word clouds, creating multifunctional digital learning spaces, videos with digital puppets, flashcards, interactive educational games, videos or video lessons, cartoons, comic strips, and story scenes, digital stories, AR experiences that bridge the physical and digital worlds, and programming interactive digital stories and games. The results of implementing the aforementioned digital tools demonstrate their effectiveness in developing the digital skills of future preschool teachers.

Keywords: digital skills; digital tools; future preschool teacher; modern foreign language technologies; foreign language teaching

Introduction. In terms of the rise of AI technologies in various spheres of human life and education, specifically, the digital transformation of the educational environment is becoming increasingly evident. Therefore, the issue of digital competence development among modern educators is a pressing topic of research and debate among researchers (Trynus, 2022; Morze & Buinytska, 2019; Morze et al., 2019). The actuality of digital skills development is explained by the constant emergence of various digital tools (websites, applications, online resources, etc.) and the need for modern educators to quickly master new technology and integrate it into the educational process. Being chosen as Word of the Year in 2019, digitalisation remains among the key factors influencing all spheres of vital activities (Tkachov et al., 2024). In turn, the creation of the modern digital environment and providing participants in the educational process with the opportunity to master new technologies have become the priority goals of all universities.

Literature review. The growing digitalisation of education requires that future preschool teachers learn both the fundamentals of technology and how to effectively incorporate digital technologies into language teaching methods. It is evident that the extent to which a child develops digital competence is largely determined by the preschool teacher's level of digital competence, as well as by their understanding and perception of the role and significance of technology in early childhood education (Masoumi & Bourbour, 2024). The impact of technology on all aspects of life is a defining characteristic of contemporary society. Consequently, it is imperative to foster the development of digital competence in future

preschool teachers in order to cultivate a digitally competent population and advance social progress through schools (Gabarda Méndez et al., 2023).

The development of digital literacy officially became a priority of the state, one of the four strategic aims in 2019, and teachers are recognised as agents of digital transformation, which in turn highlights the importance of their training in this direction. As Mykolaiko et al. state in their research, efficient teachers' digital literacy is achieved through a combination of lectures, practical classes, and the use of modern digital technologies in the learning process, as well as through the acquisition of specific digital skills in real pedagogical situations (2024). As Trynus mentions in research, a person's digital literacy is considered a priority for the economy and social development of Ukraine and worldwide, and the most significant feature of the modern personality (2022). By cultivating digital literacy, individuals can effectively engage with digital society, adapt to technological advancements, and contribute to innovation.

Providing a systematic review of how digital competence in education was addressed during the COVID-19 pandemic, Zhao et al. (2025) examine the factors influencing digital competence and the resulting accelerated interest in it. The research highlights that digital competence is not only a technical skill but also a pedagogically meaningful set of competencies.

In a similar vein, Madsen et al. (2023) investigated the professional digital competence of pre-service early childhood teachers across eight countries, identifying substantial national variations in attitudes, digital skills, and knowledge, as well as the expected use of digital tools. Emphasising that pre-service teachers' digital competence is a multidimensional construct whose components interact differently across contexts, the authors argued that digital competence in early childhood education extends beyond technical proficiency to encompass positive attitudes toward technology and the ability to integrate it meaningfully into pedagogical practice.

Gallego Joya et al. (2025) conducted a systematic evaluation of teacher training initiatives aimed at enhancing and developing educators' digital competence between 2017 and 2023. The review was based on data from major databases, including Redalyc, ScienceDirect, LENS, Scopus, and Web of Science. The majority of training programs effectively improved the digital skills of teachers, particularly in areas such as information management, communication, content creation, and digital safety, as evidenced by their analysis of fourteen selected studies. However, the authors emphasised that many initiatives remain overly focused on the technical use of tools, while insufficiently addressing the conceptual understanding and attitudinal dimensions of digital competence. They advocate for training aligned with recognised frameworks such as DigCompEdu and TPACK, which integrate pedagogical and reflective components to ensure a more holistic and sustainable development of teachers' digital capabilities.

The DigCompEdu framework (Redecker, 2017) encompasses not only the use of technical tools but also professional engagement, resource creation, pedagogy, assessment, learner empowerment, and student digital competence, outlining 22 educator-specific competencies across six areas. While DigCompEdu focuses on how digital competence can be observed, measured, and strengthened in practice, the TPACK model provides a theoretical foundation by describing the integration of technological, pedagogical, and content knowledge that teachers need to effectively incorporate technology into their instruction. By integrating content knowledge, pedagogy, and technology, it aims to improve teachers' digital literacy (Yopi, 2024). The study by Chifla-Villón et al. (2025) provides empirical support for both DigCompEdu as a practical framework for assessing educators' digital competence and TPACK as its conceptual underpinning. Their research validated the multidimensional structure of university teachers' digital competencies, confirming the interrelated nature of the six core

domains and reinforcing the view that effective digital education relies on the integrated application of technological, pedagogical, and content knowledge.

Given the theoretical and practical importance of these frameworks, it is essential to clarify the distinctions between the related concepts of digital competence, digital literacy, and digital skills. Despite their frequent use, the terms “digital competence” and “digital literacy” vary in their definitions, depending on whether concepts are defined by policy, research, or both, as well as whether they focus on technical skills or social practices (Spante et al., 2018). Still, they have more in common as they differ the digital skills. While both notions, digital competence and digital literacy, involve a broader framework that integrates cognitive, ethical, and sociocultural aspects of technology use, digital skills are often considered the operational, technical abilities required to perform specific digital activities. Since future preschool teacher training demands not only the ability to use digital tools but also the capacity to effectively incorporate them into teaching strategies that support children's growth and learning, it becomes obvious that their digital competence extends beyond basic operational skills to encompass topics such as professional collaboration, assessment, and digital pedagogy. Thus, the focus of the present research highlights the shift from mere technological proficiency to the pedagogically grounded use of digital tools, as mentioned in the “Modern technologies of teaching a foreign language to preschool children” discipline curriculum.

The purpose of this article is to present a correlation between the digital tools used to master the discipline “Modern technologies of teaching a foreign language to preschool children” and the development of digital skills in future preschool teachers.

Research. To prove the correlation between the digital tools’ usage offered in terms of mastering the discipline “Modern technologies of teaching a foreign language to preschool children” and the development of future preschool teachers’ digital skills, theoretical methods were employed. A literature review was conducted on the development of digital competence and skills. Synthesis, generalisation, and systematisation for a theoretically reasonable grounding of the digital skills development of the future preschool teachers within the “Modern technologies of teaching a foreign language to preschool children” discipline was used.

Results of the research. “Modern technologies of teaching a foreign language to preschool children” is a selective discipline at the Faculty of Pedagogical Education of Borys Grinchenko Kyiv Metropolitan University for students of the preschool speciality at the first (bachelor’s) educational level, who will further be able to teach English in kindergartens. It is taught over four semesters (comprising 2-4 courses) and consists of 12 credits (equivalent to 360 hours) and 12 modules, respectively. The developed discipline combines the best practices of traditional and innovative foreign language learning technologies. For instance, among the traditional technologies that future preschool teachers are expected to master, interactive, gaming, project, and TPR are observed, while digital, digital storytelling, mobile, and media-based technologies are learned within the innovative ones.

Taking into account the implementation of distance learning, as well as trends towards digitalisation and gamification of the educational process, future preschool teachers who implement a foreign language educational line not only master methodological skills in applying various modern technologies for teaching foreign languages, but also improve their own digital skills. Including this aspect is even more important since, according to the educational professional program (2022), they have no specific discipline aimed at digital competence development in their curriculum, specifically in the elective part of their academic disciplines, while the other students who made their choice in favour of “Primary school” specialisation have such. These students develop their digital skills within the discipline “Information and technological education with teaching methods”. Therefore, the content of the discipline “Modern technologies of teaching a foreign language to preschool children” offers the unique possibility to integrate the development of professional methodological skills

with digital ones and provide the necessary conditions for their ability to use digital tools in educational contexts. In such a way, the discipline serves as a bridge between theoretical knowledge and practical application, preparing future preschool teachers to design and implement effective digital learning experiences aligned with the pedagogical principles of early foreign language education

Five key perspectives can be used to examine the impact of digital technologies on young children's early language and emergent literacy development: print knowledge, alphabet knowledge, phonological awareness, early vocabulary acquisition, and narrative skills. In this context, teachers play a crucial role in supporting children's effective and meaningful use of digital tools by guiding them toward age-appropriate digital resources—such as educational software and applications—that promote language and literacy growth (Liu et al., 2024, 14).

The integration of digital tools in the foreign language professional training of future preschool teachers involves the use of various software designed to develop different foreign language skills. Among these tools are various interactive language learning platforms, multimedia applications, digital theatre and storytelling resources used to enhance listening and speaking skills, as well as enrich vocabulary and improve specific grammar aspects within the created grammar activities.

The rationale behind the grouping of digital tools presented in the following sections is grounded in several interrelated factors that ensure both systematicity and practical applicability of the classification. First, the grouping aligns with the objectives of the "Modern Technologies of Teaching a Foreign Language to Preschool Children" course, which aims to: (a) equip students with the ability to select and analyse modern technologies and innovative means of foreign language instruction; (b) develop skills for the effective use of these technologies in the educational process; (c) foster competence in planning foreign language classes with the integration of appropriate digital tools; and (d) cultivate the ability to assess and monitor the development of preschoolers' foreign language knowledge, skills, and abilities. Second, the classification is guided by the focus on developing specific foreign language skills, ensuring that each digital tool contributes meaningfully to linguistic and communicative development. Third, the grouping considers the technical characteristics of the tools — including their functionality, interactivity, compatibility with other platforms, accessibility, and usability within preschool education settings — which together determine their pedagogical feasibility and effectiveness.

The first group of digital tools is designed to generate word clouds (WordClouds.com, WordItOut, WordArt.com). Thus, WordArt.com allows not only to generate a unique word cloud, but also to add tags, which allows to create a multifunctional digital learning space in one place by adding the vocabulary activities attached from LearningApps.org or Wordwall, songs or videos from YouTube, and future preschool teachers can design the entire lesson within one digital object. The other alternative tool is wordclouds.com.

The second group of digital tools is designed to create digital theatre, which involves the elements of storytelling, performance, and interactive language learning (PuppetMaster, Puppet Time). One of the most engaging applications in the aforementioned category is Puppet Time. It allows users to create videos featuring digital puppets that can be used as a surprise moment, a motivational warm-up tool, or a context-setting activity at the beginning of a lesson. Moreover, such a digital puppet video can be used to introduce new vocabulary or communicative situations in a playful manner.

The third group of digital tools is designed to create flashcards (Quizlet, Anki). The well-known application in this category and an alternative to Quizlet is Anki. This tool is perfect for supporting vocabulary acquisition and memory retention. The unique feature of the aforementioned application is the use of the principle of spaced repetition, which supports long-term retention of lexical and grammatical material. Students can design customised vocabulary

sets, add images, audio, and translations, which can be particularly helpful for young learners. Also, the process of creating customised vocabulary sets contributes to the development of digital literacy.

The fourth group of digital tools is designed to program interactive digital stories and games (Scratch, ScratchJr, Blocky). Scratch is a user-friendly tool for creative coding and animation that requires no prior programming experience, enabling the combination of linguistic, cognitive, and creative development in terms of language learning, as it allows to animate characters, create dialogues, and construct storylines. While using Scratch, future preschool teachers gain experience modelling communication scenarios, reinforcing vocabulary, and encouraging children's participation through play-based learning, as well as develop 21st-century skills.

The fifth group of digital tools is designed to create interactive educational games and learning experiences (Educandy, Tiny Tap), and Tiny Tap is a notable example in this category. The target age category is preschoolers. The platform enables the design of personalised interactive lessons, quizzes, and story-based games without the need for coding skills. With a number of templates and multimedia options, it allows future preschool teachers to create interactive exercises for vocabulary practice, listening comprehension, and pronunciation training. There are six types of games available for creation: “Ask a Question”, “Create a Sound Board”, “Cut a Shape Puzzle”, “Say Something”, “Play a Video”, and “Talk or Type”, which allows creating a wide range of learning activities (Fig. 1).

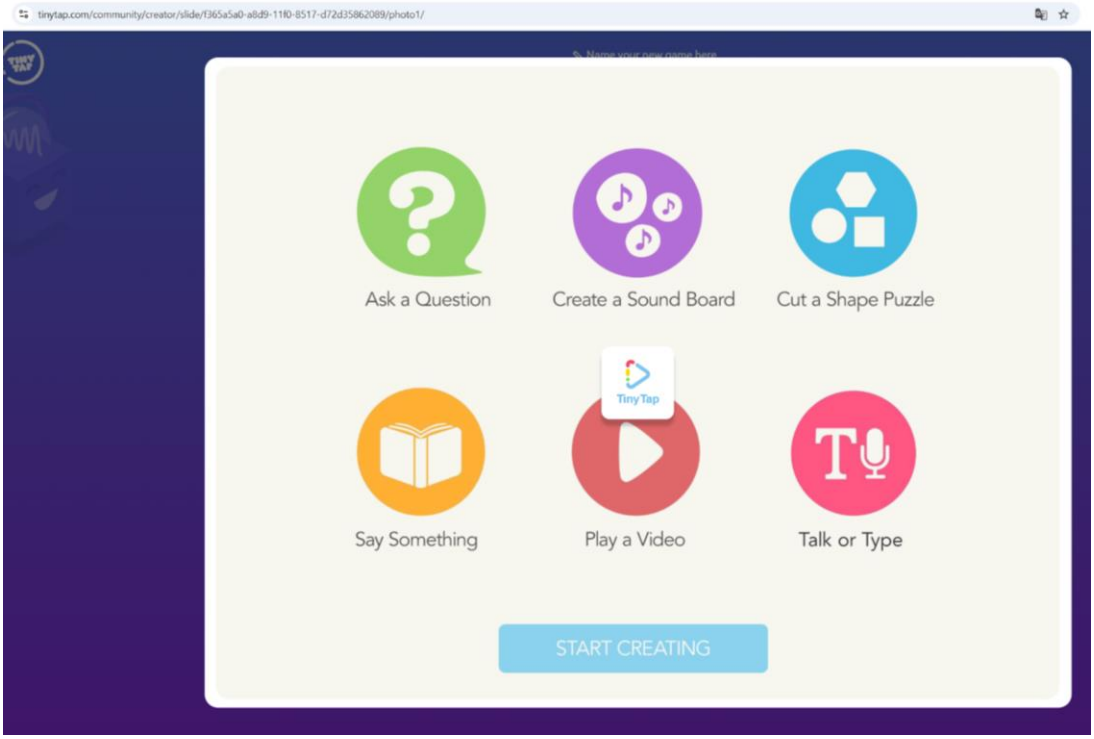


Fig.1. Tiny Tap “Create Game” mode

The sixth group of digital tools include various media tools, such as EdPuzzle or PlayPosit, designed to create interactive videos or video lessons. Both tools enable future preschool teachers to embed questions and quizzes directly into the video content, transforming a passive viewing experience into an active one. That involves adding different comprehension checks, vocabulary exercises, and discussion prompts that promote language learning and participation. Combining visual, auditory and textual input, these digital tools help reinforce vocabulary, pronunciation, and listening skills, while also providing immediate feedback.

Additionally, they facilitate differential learning by allowing various input methods to provide answers to the given questions (e.g., text, audio).

The seventh group of digital tools (Pixton, ToonyTool, Witty Comics), which is represented by ToonyTool, allows creating cartoons, comic strips, and story scenes. In terms of foreign language learning, such a tool is efficient for designing visual prompts for speaking activities, illustrating linguistic structures and communicative functions in a playful way. Using ToonyTool, learners can visualise dialogues, develop narrative competence within a meaningful interaction. Also, it develops creative storytelling and collaboration.

The eighth group of digital tools represent those purposed for storytelling. It includes a wide range of free and paid applications. They enable users to create multimodal narratives that include text, images, audio, and video. Today, to create a visually appealing story, one might use one of the listed tools below: Story Jumper, Storybird, Book Creator, My Story Maker, My Storybook, Voicethread, Slidestory, etc. The use of the aforementioned applications allows for the integration of language skills with creativity and emotional engagement. Also, it develops future preschool teachers' digital literacy and creativity.

The final group of digital tools is those based on augmented reality. Contributing to the immersive, playful, and multisensory experiences, such applications as Vocabulary Builder AR, AR Flashcards, MyWebAR by DEVAR support children's attention, motivation, and grant linguistic engagement. Combining language acquisition with experiential learning, they create a multisensory environment that enhances vocabulary retention, fosters communicative engagement, and stimulates curiosity through interaction with virtual objects and scenarios.

Based on the formation of various foreign language skills and their pedagogical purposes, the observed digital tools can be summarised and presented in Table 1.

Table 1.

Classification of Digital Tools According to Their Purpose and Language Focus

Digital tool	Purpose	Language skill
WordClouds.com, WordItOut, WordArt.com	generating word clouds | designing a multifunctional digital learning space by embedding links to vocabulary, games, songs, and interactive activities	vocabulary, grammar, listening, speaking
PuppetMaster, Puppet Time	creating videos with digital puppets for storytelling and performance-based activities	warm-up, motivational element, context-setting activity, introduction of new vocabulary or communicative situations
Quizlet, Anki	designing and using digital flashcards for memorisation and spaced repetition	vocabulary acquisition and revision
Scratch, ScratchJr, Blocky	programming interactive digital stories and games	reinforcing vocabulary, promoting children's engagement through play-based and creative learning
Educandy, Tiny Tap	creating interactive educational games and learning experiences	vocabulary practice, listening comprehension, pronunciation training
EdPuzzle | PlayPosit	developing interactive video lessons with built-in comprehension checks	reinforcing vocabulary, pronunciation, and listening skills, providing immediate feedback
Pixton, ToonyTool, Witty Comics	designing cartoons, comic strips, and visual story scenes	prompts for speaking, narrative comprehension and creative expression

Digital storytelling tools (StoryJumper, etc.)	creating digital stories	fostering imagination, narrative competence and linguistic interaction
AR tools (Vocabulary Builder AR, AR Flashcards, MyWebAR)	creating augmented reality experiences that connect the physical and digital worlds	multisensory and experiential language learning

The offered classification of digital tools reveals the wide spectrum of various technologies that require specific skills to be utilised effectively in the educational process. Therefore, the discipline “Modern Technologies of Teaching a Foreign Language to Preschool Children” enables future preschool teachers to develop their digital skills in conjunction with pedagogical aspects that focus on enhancing various language skills. From creating a word cloud to programming interactive digital learning spaces and AR experiences, students are involved in a variety of digital tasks that combine creativity, linguistic awareness and methodological skill, which guarantees that technology is utilised as a valuable teaching tool to enhance language acquisition, encourage motivation, and meet the developmental needs of preschoolers rather than for its own sake. Consequently, the discipline serves as a platform for building digital literacy, pedagogical innovation, and reflective teaching practice, which are essential components of modern professional training for preschool teachers.

To study the level of development of digital skills, observation methods were employed, including recording students' behaviour while working with specific digital tools, as well as evaluating practical tasks that involved analysing the products of students' activities in the digital environment. In addition, within each practical, reflection and self-assessment took place, which involved students determining the positive and negative aspects of the resource, the difficulties that arose, as well as the mandatory evaluation of the effectiveness of using the specified digital tools in foreign language classes in a preschool educational institution. In addition, students were offered a survey in Google Form to systematise and quantitatively analyse their assessments of their own digital skills, perception of the effectiveness of the tools used, and the level of confidence when working with them. The questionnaire consisted of 13 questions and included both closed and open-ended formats, which allowed for the evaluation not only of quantitative indicators but also to obtain qualitative comments on students' experiences in using digital resources.

The results of the survey of fourth-year students showed that the discipline "Modern Technologies of Teaching a Foreign Language to Preschool Children" played a decisive role in the formation of their digital competence. All respondents reported a significant increase in digital skills, with the current level being defined as sufficient or high. This was made possible by the transition from the basic (reproductive) use of office tools to the creative and project-based use of specialised multimedia and interactive software. In particular, students significantly expanded their arsenal of digital tools, among which, before studying the discipline "Modern Technologies of Teaching a Foreign Language to Preschool Children", standard office and communication tools Google Workspace, Power Point, Canva dominated, and after studying the course, they mastered applications for interactive learning, storytelling, multimedia creation, etc. (TinyTap, Book Creator, Toontastic 3D, StoryJumper, Anki, WordArt.com, Puppet Time, ToonyTool, StoryJumper, EdPuzzle, Vocabulary Builder AR, AR Flashcards, MyWebAR, Scratch, Kahoot, Wordwall, Quizizz). It is worth noting that most of them are already used by students in practice, particularly digital tools such as Scratch, TinyTap, and Anki, with the largest percentage falling under this category.

Among the typical difficulties noted by students and recorded during the observation of the tasks, the most common mention was the lack of time to master new tools. This is due to both the intensity of the curriculum and the lack of sufficient practice with digital tools within

other disciplines, which limited the opportunities for developing their digital competence in a comprehensive professional training context.

Key success factors included the support of the teacher, the availability of detailed instructions (in the form of video instructions), sharing experiences with classmates, perseverance, and high motivation among the students themselves. Students are critically aware of the importance of developing digital skills for future professional activities and personal development, indicating the integration of acquired skills and an orientation towards innovation in their future professional endeavours. In addition, students demonstrate high motivation to further master creative and specialised tools, in particular, in an open-ended question of the questionnaire with suggestions for changes to the work program, they expressed their wishes to expand the number of digital tools, deepen coding topics, programs for creating inclusive materials, and tools for creative work (such as Magix School, Filmora, etc.).

Reflection revealed in the survey confirms the participants' readiness to integrate the acquired skills and digital tools into their future professional activities. The following are selected excerpts from respondents' answers to the questionnaire question, "How do you plan to use the acquired digital skills within the 'Modern Technologies of Teaching a Foreign Language to Preschool Children' discipline in your future professional activities?"

Student 1. In my future professional activities, I plan to actively utilise the acquired digital skills to enhance the learning process of foreign languages for preschoolers, making it more engaging, interactive, and effective. In particular, I will utilise interactive platforms (e.g., LearningApps, TinyTap) to create games, quizzes, digital books, and language exercises. I also intend to use multimedia presentations to develop children's listening, speaking, and vocabulary skills.

Student 2. I plan to utilise digital tools to enhance children's cognitive development, create game-based educational materials, organise an interactive learning environment, and individualise the educational process.

Student 3. To use my skills in practice, to supplement my methodological toolkit with more similar tasks, and to improve what has already been created.

Student 4. These tools will help me create a modern, dynamic, and motivating educational environment that meets the needs of children in the digital age.

In response to the questionnaire question "Share a brief reflection on your experience of developing digital competence," the students noted the following:

Student 1. During the course, I significantly developed my digital competence, learning to effectively select, combine, and adapt digital tools to support the educational process with preschoolers. Getting acquainted with interactive platforms, services for creating multimedia tasks and gamification of learning was especially valuable.

Student 2. Studying digital tools helped me feel more confident in using modern technologies in education. I realised the importance of a teacher's digital competence and saw how technologies make children's learning more interesting and accessible.

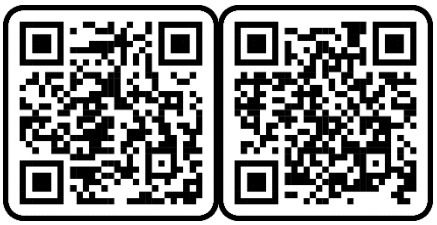
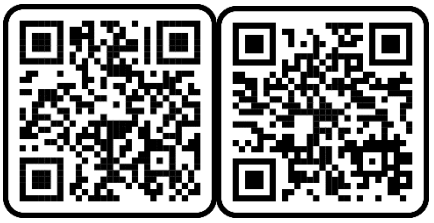
Student 3. Working with digital tools helped me realise the importance of technology in modern education. I felt confident in using online services for learning, communication, and self-development.

Student 4. Developing digital competence helped me combine pedagogical creativity with modern technologies. I realised that technologies can make learning for children truly interesting and modern.

Table 2 presents samples of students' works completed within the "Modern Technologies of Teaching a Foreign Language to Preschool Children" discipline.

Table 2.

Samples of students' works within the "Modern Technologies of Teaching a Foreign Language to Preschool Children" discipline

Digital tool	Student's sample
WordClouds.com, WordItOut, WordArt.com	
PuppetMaster, Puppet Time	
Quizlet, Anki	
Scratch, ScratchJr, Blocky	
Educandy, Tiny Tap	
EdPuzzle | PlayPosit	
Pixton, ToonyTool, Witty Comics	

Digital storytelling tools (StoryJumper, etc.)	
Animoto, Prezi (how to use-videoinstruction)	
AR tools (Vocabulary Builder AR, AR Flashcards, MyWebAR)	

The presented samples of students' works on the "Modern Technologies of Teaching a Foreign Language to Preschool Children" discipline demonstrate the way their digital skills are developed. Thus, they try new digital tools, describe their didactic potential for the use with preschoolers while learning English, create their own digital products that involve various methodological and digital toolkits such as instructional videos, exercise sets, project tasks and ideas, etc. While using new tools, they also analyze and compare the alternative applications and define their strength and limitations and choose the most appropriate, user-friendly and efficient for learning English with preschool children. This approach demonstrates the integration of the TPACK model, which allows combining the acquisition of technological, pedagogical and content competencies in balance and granting the efficient use of digital tools in their future profession.

Conclusions. The discipline "Modern Technologies of Teaching a Foreign Language to Preschool Children" serves as a critical platform for fostering future preschool teachers' digital skills. It provides students with opportunities to acquire, practice, and reflect on the use of digital technologies within authentic learning scenarios. Integrating digital tools into this discipline not only enhances students' technological fluency but also develops their methodological awareness of how digital resources can enrich foreign language teaching in early childhood education. Consequently, the development of digital skills in this context is inseparable from the cultivation of methodological skills.

Prospects for further research development. The presented research revealed future preschool teachers' basic digital skills development within the discipline "Modern Technologies of Teaching a Foreign Language to Preschool Children". However, the article does not cover all of the aspects of preschool teachers' digital competence development. Therefore, further research is needed to explore the broader dimensions of digital competence, including critical digital literacy, ethical and safe use of technology, and the integration of digital tools to create inclusive and differentiated learning environments.

REFERENCES

Trynus, O. (2022). Digital literacy formation of future teachers in higher education institutions: theoretical aspect. UNESCO Chair Journal Lifelong Professional Education in the XXI Century, 2(6), 98-115.
https://doi.org/10.35387/ucj.2(6).2022.98-115.

Morze, N. & Buinytska, O. (2019). Digital Competencies of University Teachers. In: Smyrnova-Trybulska, E., Kommers, P., Morze, N., Malach, J. (eds) Universities in the Networked Society. Critical Studies of Education, vol 10. Springer, Cham. https://doi.org/10.1007/978-3-030-05026-9_2.

Morze, N., Bazeliuk, O., Vorotnikova, I., Dementiievska, N., Zakhar, O., Nanaieva, T., Pasichnyk, O. & Chernikova, L. (2019). Description of educator's digital competence. Electronic Scientific Professional Journal "Open educational e-environment of Modern University", 1-53.
https://doi.org/10.28925/2414-0325.2019s39 (in Ukrainian).

Tkachov, S., Tkachova, N., & Tkachov, A. (2024). Dydzhytalizatsiia vyshchoi osvity: sutnist, perevahy ta problemy [Digitalization of Higher Education: Essence, Advantages and Problems]. Osvita ta pedahohichna nauka – Education and Pedagogical Sciences, 1 (185), 44-54.
https://doi.org/10.12958/2227-2747-2024-1(185)-44-54 (in Ukrainian).

Masoumi, D., & Bourbour, M. (2024). Framing adequate digital competence in early childhood education. Education and Information Technologies, 29, 20613-20631.
https://doi.org/10.1007/s10639-024-12646-7

Gabarda Méndez, V., Marín-Suelves, D., Vidal-Esteve, M. I., & Ramón-Llin, J. (2023). Digital Competence of Training Teachers: Results of a Teaching Innovation Project. Education Sciences, 13(2), 162.
https://doi.org/10.3390/educsci13020162

Mykolaiko, V, Soloshchenko, V., Korshevniuk, T., Taran, G. & Pavlov, Y. (2024). Digital literacy of teachers and students: development strategies and methods. Interacción y Perspectiva Revista de Trabajo Social, 3 (14). pp. 605-619

Zhao, Y., Sánchez-Gómez, M., Pinto-Llorente, A. M., & Sánchez Prieto, R. (2025). Adapting to crisis and unveiling the digital shift: a systematic literature review of digital competence in education related to COVID-19. Frontiers in Education, 10.
https://doi.org/10.3389/feduc.2025.1541475.

Madsen, S. S., O'Connor, J., Janeš, A., Klančar, A., Brito, R., Demeshkant, N., Konca, A. S., Krasin, S., Saure, H. I., Gjesdal, B., Ludgate, S., Jwaifell, M., Almuhtadi, R., & Thorvaldsen, S. (2023). International perspectives on the dynamics of pre-service early childhood teachers' digital competences. Education Sciences, 13(7), 633.
https://doi.org/10.3390/educsci13070633.

Gallego Joya, L., Merchán Merchán, M., & López Barrera, E. (2025). Development and strengthening of teachers' digital competence: Systematic review. Contemporary Educational Technology, 17(1), ep555.
https://doi.org/10.30935/cedtech/15744

Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu (JRC Science for Policy Report, EUR 28775 EN). Publications Office of the European Union.
https://publications.jrc.ec.europa.eu/repository/bitstream/JRC107466/pdf_digcomedu_a4_final.pdf.

Yopi, F. (2024). TPACK and teachers' digital competence in the era of Industry 4.0. International Journal Multidisciplinary (IJMI), 1(1), 16-23.
https://doi.org/10.61796/ijmi.v1i1.32.

Chifla-Villón, M., Chifla-Villón, M., Suárez-Guartamber, E., & Guevara-Viejó, F. (2025). Multidimensional assessment and validation of digital competencies in university teacher education: A confirmatory factor analysis. Frontiers in Education, 10. https://doi.org/10.3389/feduc.2025.1597095.

Spante, M., Hashemi, S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. Cogent Education, 5(1).
https://doi.org/10.1080/2331186X.2018.1519143.

Liu, S., Reynolds, B. L., Thomas, N., & Soyoof, A. (2024). The Use of Digital Technologies to Develop Young Children's Language and Literacy Skills: A Systematic Review. Sage Open, 14(1).
https://doi.org/10.1177/21582440241230850

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РОЗВИТОК ЦИФРОВИХ НАВИЧОК МАЙБУТНІХ ВИХОВАТЕЛІВ У МЕЖАХ ДИСЦИПЛІНИ «СУЧАСНІ ТЕХНОЛОГІЇ НАВЧАННЯ ДІТЕЙ ДОШКІЛЬНОГО ВІКУ ІНОЗЕМНОЇ МОВИ»

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Анотація. Стаття присвячена огляду розвитку цифрових навичок майбутніх вихователів дошкільних закладів у рамках опанування дисципліни «Сучасні технології навчання дітей дошкільного віку іноземної мови» з точки зору їхньої професійної підготовки. Представлено освітній потенціал використання різних цифрових інструментів у викладанні іноземних мов. Визначено вплив їх використання на майбутніх вихователів дошкільних закладів загалом та на розвиток їхніх цифрових навичок зокрема. У статті використовуються теоретичні методи дослідження, включаючи синтез, узагальнення та огляд літератури, для вирішення проблеми та розмежування термінів цифрова грамотність, цифрова компетентність та цифрові навички. Крім того, для опису цифрових інструментів та їх застосування у викладанні іноземних мов дітей дошкільного віку було використано власний досвід автора. Автор класифікує цифрові інструменти за численними групами залежно від їхнього призначення, розкриваючи дидактичну цінність цифрових інструментів у вивченні мови, які використовуються для покращення словникового запасу, граматики, вимови, навичок говоріння та аудіювання, забезпечення негайного зворотного зв'язку, підказок до говоріння, розуміння, тренування вимови, розминки, мотиваційного елемента, контекстуальної діяльності, введення нової лексики або комунікативних ситуацій, мультисенсорного та експериментального навчання, сприяння залученню дітей через ігрове навчання, а також розвитку уяви та лінгвістичної взаємодії дітей. Серед проаналізованих інструментів є ті, що спрямовані на створення хмар слів, створення багатофункціональних цифрових навчальних просторів, відео з цифровими ляльками, флешкарток, інтерактивних освітніх ігор, відео або відеоуроків, мультфільмів, коміксів та сюжетних сцен, цифрових історій, доповненої реальності (AR), що поєднує фізичний та цифровий світи, та програмування інтерактивних цифрових історій та ігор. Результати впровадження вищезгаданих цифрових інструментів демонструють їхню ефективність у розвитку цифрових навичок майбутніх вихователів дошкільних закладів.

Ключові слова: цифрові навички; цифрові інструменти; майбутній вихователь закладу дошкільної освіти; сучасні технології навчання іноземних мов; навчання іноземних мов