

РОЗДІЛ 4. ТЕОРІЯ І МЕТОДИКА ПРОФЕСІЙНОЇ ОСВІТИ

MICROLEARNING IN THE CONTEXT OF TEACHING A FOREIGN LANGUAGE IN HIGHER PROFESSIONAL EDUCATION INSTITUTIONS

МІКРОНАВЧАННЯ В КОНТЕКСТІ ВИКЛАДАННЯ ІНОЗЕМНОЇ МОВИ В ЗАКЛАДАХ ВИЩОЇ ПРОФЕСІЙНОЇ ОСВІТИ

The article examines the innovative educational technology of microteaching as an effective strategy for teaching a foreign language in the context of higher professional education, considering the latest requirements to educational content and the current conditions. The advantages of microteaching as a pedagogical strategy and its relevance for Z generation students who have a lower average concentration time, perception fragmentation, increased suggestibility and insufficient communication skills have been considered. The paper suggests that microcontent prevents cognitive overload and provides better foreign language information retention; it also has such advantages as accessibility, feasibility, obvious goal setting, and reflection. This technology is relevant and effective in teaching a foreign language at a university, where the educational process faces certain pedagogical problems (time constraints, lack of motivation to learn a foreign language). The study emphasizes that to ensure effective foreign language learning, microcontent should be goal-oriented, logically structured, brief, carefully designed and organically integrated by the teacher into the general structure of learning. In the article, the author also identifies the means of implementing foreign language microteaching (technologies and tools to be used in developing micro-lessons) in the context of the university academic process.

The author concludes that this approach to organizing students' foreign language activities enhances their motivation and involvement in the learning process, as well as is effective in the process of consolidating foreign language material and retaining it in students' memory. Therefore, microlearning is a perspective area of research in the context of teaching foreign languages at higher education institutions in the present-day context.

Key words: Generation Z, microcontent, microtasks, microlearning, foreign language teaching, innovation.

У статті досліджується інноваційна освітня технологія мікронавчання як ефек-

тивна стратегія викладання іноземної мови в контексті вищого професійного навчання з урахуванням нинішніх вимог до змісту освіти та сучасних умов. Розглядаються переваги мікронавчання як педагогічної стратегії та її актуальність для студентів Z покоління, у яких знижена середня тривалість концентрації, спостерігається фрагментація сприйняття, вони мають підвищену сугестивність і недостатні комунікативні навички. У роботі припускається, що мікроконтент запобігає когнітивному перевантаженню і забезпечує краще утримання інформації іноземною мовою; він також має такі переваги, як доступність, здійсненність, очевидне цілепокладання і рефлексія. Дана технологія актуальна та ефективна у викладанні іноземної мови в університеті, де освітній процес стикається з певними педагогічними проблемами (часові обмеження, недостатня мотивація до вивчення іноземної мови). У дослідженні наголошується, що задля ефективного опанування іноземної мови мікроконтент має бути орієнтований на конкретну мету, логічно побудований, стислий, ретельно продуманий та органічно вписаний викладачем у загальну структуру навчання. У статті авторка також визначає засоби реалізації мікронавчання іноземної мови (технології та інструменти, які можна використовувати під час розроблення мікроуроків) в умовах університетського академічного процесу.

Авторка підсумовує, що зазначений підхід до організації іншомовної діяльності студентів посилює їхню мотивацію та залученість у навчальний процес, а також є ефективним у процесі закріплення іншомовного матеріалу й утриманні його в пам'яті студентів. Таким чином, мікронавчання є перспективним напрямом роботи в контексті викладання іноземних мов у ЗВО в сучасних умовах.

Ключові слова: Покоління Z, мікроконтент, мікрозадачі, мікронавчання, викладання іноземних мов, інновації.

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Formulation of the problem. Ukrainian society is seeing new forms of social communication, lifestyle, mentality, and thinking emerging today. Today, virtually all spheres of human life and activity take place in both real and virtual environments. Growing informatization and complication of socio-economic realities form a new social order and make new demands on higher professional education. Researchers increasingly speak of the need for accelerated learning programs that help to innovate, develop students' creative and critical thinking, and encourage them

to learn new things. Generation Z, today's students according to William Strauss and Neil Howe's generational theory, has distinct cognitive traits that set them apart from earlier generations. These traits require customized educational strategies and psychological support to meet their specific needs and learning styles. It is essential for educators and mental health professionals to understand and respond to these characteristics in order to create a more effective learning environment. Acknowledging these differences can lead to more effective teaching methods

and better mental health support for these students. They are the first generation to grow up in the era of smartphones, social media, and constant internet connectivity. They easily master new technologies, use digital tools for work and communication, and more actively seek information online. But this generation of students has lower average attention span, less selective attention, short-term memory, difficulties with critical perception of information, increased suggestibility and poor communication skills. They are used to rapidly consuming information, frequently juggling multiple applications at once and processing data in a fragmented way. This has led to the development of clique thinking – the perception of information in short and intense fragments. The overwhelming flood of information and the incessant barrage of distracting notifications that Generation Z faces on a daily basis contribute significantly to their decreasing ability to concentrate. As a result, many individuals within this age group find it particularly challenging to focus on and effectively process large amounts of data that require sustained attention and deep thinking. This phenomenon not only affects their academic performance but also extends to their professional lives, making it increasingly difficult to navigate complex tasks that demand logical reasoning and long-term focus. In this fast-paced digital environment, the struggle to maintain concentration has become a defining characteristic of their interactions with information. Moreover, students nowadays perceive technology as a natural part of their life and are used to visual effects. Therefore, they expect university education to be interactive, with a variety of tasks and gamification elements. The new generation needs an engaging, modern, and visual learning process that offers practical and relevant information. The vocational education system needs to evolve to better adapt to the diverse needs of students. Educational pathways should cater to the individual needs, interests, and learning styles of each person for a more personalized experience. It is essential to uphold a universal framework that guarantees consistent standards and quality throughout the entire system. This dual approach will better prepare students for the challenges of the modern workforce while respecting their individuality. Understanding the specifics of the new generation requires the development of effective methods of interaction and learning. Interest in microlearning is influenced by several factors: advancements in mobile communication technologies, the rise of mobile pedagogy, the increasing complexity of socio-economic issues, the need for lifelong learning, and the psychological traits of digital generation students. Microlearning is an effective tool for meeting the needs of Generation Z, making information more engaging and the learning process dynamic.

Analysis of the latest research. Researchers and educators are increasingly focusing on understanding

the theoretical frameworks and practical uses of “microlearning” technology. This growing interest shows the potential to improve learning by simplifying complex information into smaller, easier segments. As a result, both academic and professional environments are looking into how microlearning can be effectively integrated into teaching methodologies and training programs. This focus aims to improve learner engagement and retention by leveraging the unique advantages that microlearning offers. In his works, Souza M.I. [1] explores microlearning as a nuanced approach to education that emphasizes the micro level, particularly through the use of microcontents or micro media – media resources that are compact. This method of learning is centered around succinct learning units and short-term educational activities, making it an effective strategy for modern education. Hug T. [5] defines microlearning as a method that unfolds through a series of engaging episodes, delivered to students progressively. According to Hug T., learning information should be given in small portions within narrow topics and accompanied by short periods of assimilation. The emphasis on microcontent is due to the fact that a small amount of learning material concentrates the core of necessary and important information to maximize its retention in the memory of the learner. The human brain then naturally assimilates the information without additional effort on the part of the individual. Bruck P.A., Lindner M., Hug T emphasize that educational content in the form of sequential micro interactions will allow students to learn without information overload [6]. Also, Hug T. talks about microlearning in the context of e-learning process as a short-term learning activity with microcontent, which includes learning with the use of digital media that ensure that the educational process meets the requirements of the rapidly changing world of technology. Most researchers support the idea of defining microlearning as a form of working with microcontent in small fragmented learning units quickly learned through short-term learning activities from web resources [4].

Thus, researchers often associate microlearning with digital didactics or a new stage of mobile learning development. Microlearning is a key principle of mobile learning (m-learning) that enhances the effectiveness of education by transforming educational content. Microlearning can be understood within a broader context, extending beyond just technical tools. This perspective helps us recognize it as a unique teaching method with its own ideas, goals, and effective techniques. Understanding different models and tools related to this approach helps us recognize the broad impact of learning on education and personal growth. This broader context helps us see earnings as more than just transactions; they become an essential part of the learning process. The implementation of microlearning can take on various

forms. It is used in distance learning, as well as in traditional face-to-face classes or within a mixed model.

All approaches to the definition of the concept of “Microlearning” have one thing in common – this technology allows training students promptly in an easy-to-understand and flexible learning format. Thus, microlearning allows solving a number of problems, such as lack of time, improving the quality of learning, increasing motivation and others.

The purposes of the article: to consider the essence of the term “microlearning” as a technology of teaching a foreign language in the context of higher professional education; to describe the advantages and disadvantages of this technology on the basis of analyzing scientific and methodological literature, as well as personal teaching experience; to determine the means of implementing microlearning in the university environment.

Presentation of the main research material.

The analysis of educational and psychological literature shows that microlearning is a new trend in formal education, especially in higher education, that has received considerable attention. Despite its novelty, there have already been numerous studies conducted that confirm the convenience and cost-effectiveness of implementing microlearning strategies. These studies collectively demonstrate the positive impact that microcontent can have on the successful retention of information among learners, thus indicating that microlearning may revolutionize traditional educational approaches. Furthermore, the evidence suggests that by utilizing microlearning techniques, educators can enhance student engagement and comprehension, leading to more effective learning outcomes [7]. Buchem I. and Hamelmann H. have established essential principles for microcontent design and created microlearning modules that are self-sufficient, easily digestible, focused, and dedicated to specific topics and ideas [3]. However, it's important to highlight that the majority of existing research concentrates on subjects typically taught through lectures. This makes it crucial to explore the effectiveness of microlearning specifically in the realm of foreign language instruction.

Considering the psychological traits of Generation Z, teachers use strategies that include micro-content, frequent repetition, and visualization. It can be assumed that microlearning can improve and enrich linguodidactics in the context of modern educational space, where foreign language teaching faces many difficulties (time constraints, low language proficiency, lack of motivation, etc.).

Microlearning can become an effective learning strategy for students learning a foreign language in the system of additional non-core education, in the system of continuing professional education, as a tool for the main profession, for career opportunities and expansion of the range of their main professional

activity. In higher education foreign language teaching, the use of microlearning is characterized by a number of positive aspects, since this way of organizing the educational process can:

Facilitate immediate feedback and enhance overall understanding for learners, enabling them to grasp concepts more effectively.

Enhance learner engagement and retention. Small training modules that incorporate a variety of formats such as short videos, engaging infographics, and interactive online quizzes significantly aid in reducing the rigidity typically associated with traditional learning processes. By delivering educational microcontent tailored to each individual's preferred style of information acquisition, learners can engage more effectively and retain information better. This personalized approach not only caters to diverse learning preferences but also makes the overall educational experience more enjoyable and impactful. Consequently, this innovative method creates a more flexible and adaptable learning environment for everyone involved.

Utilize multimedia technologies that resonate with and are easily comprehensible for today's students.

Adapt to the short attention span of Generation Z, as the idea of transmitting information in small blocks ensures its long-term retention in the memory of learners without distractions.

Deliver immediate feedback. The interactive format of training sessions fosters a dynamic environment that enables both instructors and students to provide and receive immediate, real-time feedback. This ongoing exchange of insights enables immediate adjustments, creating a more engaging and enjoyable overall learning experience. By encouraging dialogue and participation, participants are more likely to stay focused and invested in the material being presented. Ultimately, this collaborative atmosphere enhances understanding and retention of the information shared during the training.

Allow the application of gamification elements to activate the cognitive function. Adding gamification to microlearning boosts learner motivation by sparking competition, making the learning process enjoyable and engaging. The use of game mechanics with a well-written story, progression to a new level when mastering the previous one, leaderboards, points system and badges causes learners to associate with a familiar virtual environment of pleasant pastime, which internally “energizes” them to be effective.

Support experiential learning (learning through experience). The concept of experiential learning is realized through the implementation of scenarios, case studies and simulations. Students are actively engaged in the process of engaging and technologically advanced learning activities.

The effectiveness of microlearning relies not only on small learning units but also on the repetition of

these units over time for better information retention. Researchers have dedicated significant effort to exploring the phenomenon of information forgetting, revealing that the key to overcoming this challenge lies in reviewing material at strategically selected intervals. This method is crucial for effectively learning foreign languages, as it requires consistent exposure to more intricate vocabulary, grammar rules, and idiomatic expressions, enabling mastery and memorization over time. Such consistent engagement not only helps reinforce what has been learned but also builds a solid foundation for understanding the nuances of the language. By gradually introducing more challenging content, learners can effectively enhance their comprehension and communication skills. Ultimately, this method supports a deeper and more meaningful acquisition of the language. Repetition is considered an important part of language learning, especially in grammatical aspects. Short online grammar quizzes will help in mastering grammar through constant practice. Utilizing mobile apps featuring quick five-minute games to practice grammar structures helps learners reinforce and recall the material they've mastered. Additionally, the inclusion of rankings and challenges ensures that the learning process remains engaging and motivating. For example, there are separate apps for learning irregular verbs in English, which can make life easier for many students. Thus, one of the great benefits of microlearning is the ability to provide repeatable intervals and revision of learning content. Microblocks can be viewed anywhere and anytime through a variety of mobile apps, messengers, and social media. Microcontent is multimedia and highly visual, which enhances learning by being easily accessible and mobile, supporting a learner-centered approach. In addition, micro-elements can be assimilated at the learner's own pace, depending on the level of language proficiency and individual learning style. There are many micro or mini style foreign language learning resources in the online media space: mini-lessons, mini-videos, mini-texts and mini-quizzes. However, most of them do not fit the principles of microlearning. The main criterion of a micro format is consistent learning mini-content that the student has to memorize and practice in class. A short lesson without a clear focus, a short video (4–7 minutes) but with 20 vocabulary units or a short text without a micro-assignment is not microlearning.

Thus, microcontent should be autonomous and self-sufficient with the possibility of replacing individual fragments. Microcontent learning units should seamlessly fit into the broader course structure, ensuring they align with its cohesive goal. Furthermore, they should offer a diverse array of methods for delivering educational content and techniques to reinforce newly acquired knowledge and skills. For example, the visual form of microcontent

in the form of infographics rather than traditional text allows the learner to understand at a glance the essence of the topic covered and makes the material more memorable.

In the age of digitalization, foreign language teachers have unlimited opportunities to transform available information into microcontent. Social media platforms support microlearning by providing easily readable and accessible content, making it simple to create and incorporate into lessons.

The practice of using microlearning shows that this method is highly effective in learning absolutely all aspects of a foreign language. When developing microlearning lessons for language learning, the following technologies and tools can be used:

1. *Mobile applications and platforms for microlearning.* Duolingo, Babbel, Lingvist offer short tasks that can be completed in a few minutes. They include translation, listening, reading and word repetition exercises. Quizlet, Anki allow you to create sets of cards for memorizing words and phrases that are ideal for microlearning. Memrise, in addition to cards and texts, uses videos with native speakers to help reinforce real phrases and intonation.

2. *Microformat video and audio lessons.* Many teachers and native speakers create short videos of phrases, expressions, grammatical constructions and post them on TikTok and YouTube Shorts. There are many podcasts for language learners where topics are discussed for 5-10 minutes.

3. *Chatbots for language practice.* Replika, HelloTalk, Tandem allow you to interact with native speakers or AI assistants that support conversation in the target language. Bots can simulate communication by asking questions and checking answers. ChatGPT allows asking questions, getting explanations of grammatical constructions and translations, and practicing dialogs.

4. *Language learning applications* such as Duolingo and Quizlet often use notifications to remind you to repeat material. For example, push notifications can contain mini-assignments, reminders of the words of the day, or even simple phrases to repeat. Duolingo and Memrise use a system of levels, points, and daily goals to help not only keep attention but also maintain regularity. Lingodeer offers mini-vocabulary and grammar learning games that help you internalize complex topics in a playful format.

6. *Virtual assistants and voice assistants.* Google Assistant, Siri, Alexa help you practice speaking. You can ask questions, ask them to translate phrases, or even practice pronunciation by speaking to them in a foreign language.

7. *Augmented and virtual reality (AR and VR) technologies.* Mondly VR, ImmerseMe – applications that use virtual reality to immerse in a language environment where you can practice the language in simulations of real-life situations. AR technologies can be

used to view foreign language captions to surrounding objects (e.g., with Google Translate).

8. *AI technologies to analyze speech and pronunciation.* Elsa Speak, Speechling use AI to analyze pronunciation and give feedback, pointing out mistakes and suggesting how to improve the accent. Google Translate has speech recognition, which helps to check the correct pronunciation of individual words and phrases.

9. *Using interactive tests, quizzes, crossword puzzles.* Such engaging resources like Kahoot and Quizizz can be seamlessly integrated into micro-lessons, which provide an interactive and enjoyable way for students to enhance their learning experience. By incorporating these tools, educators can offer students numerous opportunities to practice essential elements such as vocabulary, grammar, and various cultural aspects of a foreign language. This not only reinforces the material being taught but also fosters a more dynamic and participatory classroom environment. Ultimately, leveraging these interactive platforms can significantly boost students' motivation and retention of the language they are learning [2].

Most students who took part in the comprehensive survey on the impact of microlearning principles in foreign language classes strongly agree that this innovative method of organizing learning activities greatly boosts their capacity to retain information effectively. Furthermore, they feel that it promotes better long-term retention of the information acquired during these lessons, making the learning process more efficient and impactful. Ultimately, these insights suggest that microlearning may play a crucial role in improving educational experiences for language learners. The high efficiency of learning was achieved by concentrating on small, targeted fragments of information, which minimized cognitive load. Leveraging interval repetition and various microcontent strategies, learners were able to effectively reinforce their retention of new material. Using engaging questions and quizzes in a game format effectively helps students retain material in a small learning segment. The repeated activation of this information not only reinforced their memory but also facilitated the internalization of specific knowledge.

Conclusions. Microlearning is well-suited for teaching Generation Z students. It accommodates their cognitive abilities, communication styles,

attention spans, multitasking skills, and varying task completion speeds in foreign language classes. However, to be effective, the content of foreign language microlearning in the context of higher professional education should meet the following requirements: to be purposeful, self-sufficient and logical, short and easily perceivable, carefully planned and repetitive. Micro-content and micro-tasks boost confidence by showing students the results of their efforts. Moreover, it facilitates reflection, which is an integral part of any skill development.

Prospects for Further Research may be related to the development and implementation of tools for automated monitoring and analysis of students' progress when using microlearning, which will allow for more precise adaptation of the learning process to their individual needs, as well as the evaluation of the long-term effectiveness of microlearning in the development of professional and academic skills, especially in the context of higher education.

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