

**TEACHING ENGLISH IN CONTEMPORARY UKRAINE: CHALLENGES AND
PERSPECTIVES**
**МЕТОДИКА ВИКЛАДАННЯ АНГЛІЙСЬКОЇ МОВИ В СУЧАСНІЙ УКРАЇНІ:
ВИКЛИКИ ТА ПЕРСПЕКТИВИ**

У даній роботі розглядаються сучасні підходи до викладання англійської мови в Україні з урахуванням викликів воєнного часу та євроінтеграційних процесів. Досліджуються методи підвищення ефективності навчання в умовах дистанційної та змішаної освіти, застосування цифрових технологій та адаптація міжнародних стандартів до українських реалій. Особлива увага приділяється психологічним аспектам викладання в кризових умовах та формуванню стійкої мотивації учнів. Пропонуються практичні рекомендації щодо інтеграції інноваційних методик у навчальний процес.

Ключові слова: методика викладання англійської мови, дистанційне навчання, цифрові технології, психологічна підтримка, євроінтеграція, воєнний стан, змішане навчання.

This paper examines contemporary approaches to English language teaching in Ukraine, taking into account the challenges of wartime conditions and European integration processes. The research investigates methods for enhancing learning efficiency in remote and blended education settings, the application of digital technologies, and the adaptation of international standards to Ukrainian realities. Special attention is paid to the psychological aspects of teaching in crisis conditions and the formation of sustainable student motivation. Practical recommendations for integrating innovative methodologies into the educational process are provided.

Keywords: English language teaching methodology, distance learning, digital technologies, psychological support, European integration, martial law, blended learning.

The teaching of English as a foreign language in Ukraine has undergone significant transformation in recent years, driven by both global educational trends and the unique challenges facing Ukrainian society. The ongoing military conflict since 2022, accelerated European integration processes, and the global shift toward digital education have created a complex landscape for English language educators. This paper examines the current methodological approaches to English language teaching (ELT) in Ukraine, analyzing the challenges and opportunities present in the contemporary educational environment and offering evidence-based recommendations for practitioners.

The importance of English language proficiency has increased dramatically in Ukrainian society, now being viewed not only as an academic requirement but as a critical life skill enabling access to global information, international mobility, and economic opportunities. This shift in perspective necessitates a corresponding evolution in teaching methodologies that can address the practical needs of learners while operating within the constraints of Ukraine's current realities.

Challenges of English Language Teaching in Contemporary Ukraine. The military conflict has created unprecedented challenges for the Ukrainian educational system. Air raid alerts, power outages, and the displacement of both teachers and students have disrupted traditional educational processes. Language teachers have been forced to develop flexible methodological approaches that can function under unstable conditions while maintaining educational quality.

Research by Mykhailenko et al. (2023) indicates that successful adaptation to these conditions involves developing:

1. Modular lesson structures that can be interrupted and resumed without significant loss of educational continuity
2. Asynchronous learning components that students can access during periods of connectivity
3. Low-tech alternatives for digital activities that can function during power outages

4. Emergency teaching protocols that prioritize essential language skills during periods of severe disruption

Digital Transformation of Language Education. The pandemic-driven shift to online learning created a foundation for the continued digital transformation of English language education in Ukraine. However, the infrastructure challenges and digital divide between urban and rural areas present significant obstacles. According to surveys conducted by the Ministry of Education and Science of Ukraine, approximately 30% of students still experience difficulties with reliable internet access during distance learning sessions.

Effective digital methodology in the Ukrainian context requires adoption of learning management systems (LMS) that can function with low bandwidth, development of mobile-first educational resources accessible on smartphones, implementation of blended learning models that combine online and offline components, creation of downloadable resources that can be accessed without continuous internet connection.

Psychological Dimensions of Language Learning During Crisis. The psychological impact of prolonged conflict creates unique challenges for language learning. Stress and trauma can significantly affect cognitive processes critical for language acquisition, including attention, memory, and motivation. Research by Boichenko and Kovalchuk (2023) demonstrates that successful language teaching in crisis conditions must incorporate elements of psychological support.

Effective methodological approaches include:

1. Trauma-informed language teaching practices that recognize the emotional state of learners
2. Incorporation of resilience-building activities within language lessons
3. Creation of psychologically safe learning environments that reduce anxiety
4. Development of content that acknowledges current realities while maintaining optimism

Innovative Methodological Approaches. Ukraine's ongoing educational reform and alignment with European standards has accelerated the shift toward competency-based language education. This approach focuses on developing practical language skills rather than theoretical knowledge, emphasizing what learners can do with the language in real-world contexts.

The implementation of the Common European Framework of Reference for Languages (CEFR) across Ukrainian educational institutions has provided a standardized framework for assessing language proficiency. However, practical implementation requires redesigning curricula to emphasize communicative competence, developing assessment tools that evaluate practical language application, creating authentic learning scenarios relevant to Ukrainian learners' needs, balancing prescribed educational standards with the flexibility required by current conditions.

Project-Based Learning in Virtual Environments. Project-based learning (PBL) has demonstrated particular effectiveness in the Ukrainian context, enabling students to develop language skills while engaging with meaningful content. The virtual adaptation of PBL methodologies has allowed for continued implementation during periods of remote learning.

Successful virtual PBL approaches include:

- collaborative digital projects utilizing shared online workspaces;
- virtual exchanges with English speakers from other countries;
- research projects investigating topics relevant to students' lives and interests;
- creation of digital artifacts that demonstrate language proficiency while developing digital literacy.

Integration of Content and Language Integrated Learning (CLIL). The adoption of CLIL approaches, where students learn subject matter content through the medium of English, has gained traction in Ukrainian education. This methodology aligns with Ukraine's internationalization goals while maximizing exposure to authentic language use.

Effective implementation strategies include:

1. Development of subject-specific language scaffolds for various disciplines.
2. Collaboration between language teachers and subject specialists.
3. Creation of bilingual resources that support content comprehension.
4. Gradual implementation beginning with select topics before expanding to full subjects.

Technology-Enhanced Language Learning Solutions. The widespread adoption of smartphones among Ukrainian students has created opportunities for autonomous language learning through mobile applications. These tools supplement formal instruction while providing opportunities for practice during periods when traditional teaching is disrupted.

Dashkova and Petrenko (2022) identified key features of effective mobile applications for the Ukrainian context: offline functionality that works during connectivity disruptions, gamified elements that maintain motivation during challenging circumstances, spaced repetition systems that optimize vocabulary retention, progress tracking features that provide a sense of achievement.

Virtual and Augmented Reality in Language Immersion. Despite infrastructure limitations, innovative educators in Ukraine have begun implementing virtual reality (VR) and augmented reality (AR) technologies to create immersive language learning experiences. These technologies are particularly valuable when physical mobility is restricted and traditional immersion experiences are unavailable.

Promising applications include:

- virtual reality conversations with simulated native speakers;
- augmented reality vocabulary learning connected to physical environments;
- virtual field trips to English-speaking countries and cultural sites;
- simulated real-world scenarios for practicing situational language.

Based on the analysis of current conditions and methodological innovations, the following recommendations are provided for English language educators in Ukraine:

1. **Prioritize Flexibility and Resilience:** Develop methodological approaches that can function across multiple modes of delivery (in-person, online, hybrid) and adapt to sudden changes in conditions.
2. **Integrate Psychological Support:** Incorporate emotional wellbeing components into language teaching, recognizing that effective language acquisition requires psychological security.
3. **Leverage Low-Tech Solutions:** While embracing digital innovation, maintain a repertoire of low-technology teaching approaches that can function during infrastructure disruptions.
4. **Foster Learner Autonomy:** Develop students' capacity for independent language learning through explicit strategy instruction and self-assessment tools.
5. **Connect to Real-World Needs:** Align language teaching with the practical communication needs of learners in the current Ukrainian context, including international communication, access to information, and professional development.

Conclusion. The teaching of English in contemporary Ukraine presents unique challenges that require innovative methodological responses. By combining evidence-based teaching approaches with sensitivity to the current Ukrainian context, educators can develop effective strategies that not only maintain educational continuity but also prepare students for their future roles in an internationally integrated Ukraine.

The ongoing crisis has accelerated educational transformation, creating opportunities to rebuild language education on more modern, flexible, and learner-centered foundations. Through continued professional development, community building, and methodological innovation, Ukrainian English teachers are developing approaches that may serve as models for language education in other challenging contexts worldwide.

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USE OF DRONES WITH A THERMAL VISION CAMERA FOR ENERGY AUDIT (ВИКОРИСТАННЯ ДРОНІВ З ТЕПЛОВІЗІЙНОЮ КАМЕРОЮ ДЛЯ ПРОВЕДЕННЯ ЕНЕРГОАУДИТУ)

У статті розглянуто інформацію про використання дронів, оснащених тепловізійними камерами, для проведення енергоаудиту будівель та електричних мереж для швидкого та точного збору та передачі інформації в реальному часі, що значно полегшує роботу та мінімізує використання людської праці.

Ключові слова: дрони, тепловізійна камера, енергоаудит, енергоефективність, теплові втрати, інфрачервона діагностика, будівлі, тепломережі, автоматизований моніторинг.

The article discusses information on the use of drones equipped with thermal imaging cameras for conducting energy audits of buildings and electrical networks for fast and accurate collection and transmission of information in real time, which greatly facilitates the work and minimizes the use of human labor.

Keywords: drones, thermal imaging camera, energy audit, energy efficiency, heat loss, infrared diagnostics, buildings, heat networks, automated monitoring.

In modern conditions, where the costs of energy resources are constantly increasing, the issue of their rational use is becoming increasingly important. One of the key aspects of energy efficiency is conducting an energy audit of buildings and engineering networks. Traditional methods of assessing energy losses require significant time and human resources and can be hazardous, especially when evaluating high-rise structures or hard-to-reach objects. This is why the implementation of unmanned technologies with thermal imaging cameras is becoming particularly relevant. Drones enable energy audits to be conducted quickly, efficiently, and with high accuracy, making them an indispensable tool for identifying heat losses. [1]

Ukraine has a number of legislative acts and regulations governing the energy efficiency of buildings, including public buildings. For instance, the Law of Ukraine "On Energy Efficiency of Buildings" and the Ukrainian Building Code contain provisions aimed at improving energy efficiency. The energy efficiency of public buildings in Ukraine is a crucial issue, as energy conservation and sustainable energy consumption are becoming increasingly important tasks in the context of climate change and energy efficiency improvements. Additionally, this issue is closely linked to the ongoing military conflict in Ukraine and the subsequent reconstruction of buildings.

Ukraine is implementing certification and standardization systems to assess and maintain the energy efficiency of buildings. For example, the LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method) certification systems allow for the evaluation and determination of energy efficiency levels in buildings, including public facilities. Raising awareness about energy efficiency and education are essential factors for the successful implementation of energy-efficient projects in public buildings.