

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
H. S. SKOVORODA KHARKIV NATIONAL PEDAGOGICAL UNIVERSITY
University of Manchester (the United Kingdom)
Journal Revue internationale d'éducation de Sèvres (France)
Østfold University College (Norway)
University of Vlore "Ismail Qemali" (Albania)
King Sejong Tra Vinh University (Vietnam)
Amity University Mumbai (India)
Mid-West State University – UNICENTRO (Brazil)
Sinop University (Turkey)

CONFERENCE PROCEEDINGS

**II International Scientific &
Practical Conference**

LEARNING & TEACHING:

**after War and
during Peace**

(Kharkiv, Ukraine)

10 November, 2023

KHARKIV – 2023

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CONFERENCE ORGANIZING COMMITTEE

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Rector, Professor, H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

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Vice-Rector, Professor, H. S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

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John MCCORMACK

Dr., Senior Lecturer in Project Management, University of Manchester, Alliance Manchester School of Business (the United Kingdom).

Marie-José SANSELME

*Deputy Editor, Journal Revue internationale d'éducation de Sèvres, France
Éducation Internationale (France).*

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PhD, Professor, Faculty Dean, Østfold University College (Halden, Norway).

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Hakan UŞAKLI

Professor, Sinop University (Turkey).

Fatjona KAMBERI

PhD, Associate Professor, Scientific Research Centre for Public Health, Faculty of Health, University of Vlore "Ismail Qemali" (Albania).

Thi Hoang Hoa CHAU

PhD in Education, specializing in English Language Teaching, Vice Director of International Collaboration and Project Promotion Department; Director of Korean Culture and Language Institute - King Sejong Tra Vinh University (Vietnam).

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Ph.D., Honorable Director of the Instituto de Historia Argentina e Iberoamericana "Emilio Ravignani"; Professor of Argentine History in the Department of History of the School of Philosophy of the University of Buenos Aires (Argentina).

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Research Scholar, Centre of West African Studies, Research Economist, Bank of Sierra Leone (Sierra Leone).

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Ph.D. in Computer Science, Full Professor, Head of Institute Amity Institute of Information Technology, Amity University Mumbai (India).

Yuliia BOZHKO

PhD in Philology, Associate Professor, H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

Tetiana VIEDIERNIKOVA

PhD in Philology, Associate Professor, H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine (Kharkiv, Ukraine).

Olena GULICH

PhD in Philology, Associate Professor, H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

Nataliia SOLOSHENKO-ZADNIPROVSKA

PhD in Philology, Associate Professor, H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

Victor CHETVERYK

Lecturer, PhD in Philology, H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine).

HUMANITARIAN SECTION

BATSUROVSKA, Ilona

<https://orcid.org/0000-0002-8407-4984>

DOTSENKO, Nataliia

<https://orcid.org/0000-0003-1050-8193>

Mykolayiv National Agrarian University, Ukraine

CHALLENGES AND PROSPECTS OF EDUCATION IN TIMES OF ARMED CONFLICT

Education in times of armed conflict is always extraordinary and challenging for any aspect of society, including the education system. In such conditions, one encounters unprecedented challenges and limitations that significantly affect learning opportunities. However, these circumstances can also serve as a stimulus for the development of new strategies and innovations in the field of education.

The **aim** of the article "Problems and Prospects of Education in the Conditions of Armed Conflicts" is to explore and analyze the challenges and potential opportunities that arise in the field of education when armed conflicts or wars occur.

Results:

Problems of Education in Times of Armed Conflict:

- **Safety of Students and Teachers:** The primary issue of education during armed conflict is ensuring the safety of participants in the educational process. Threats of terrorism and violence can force educational institutions to close their doors, resulting in interruptions in learning.
- **Reduced Accessibility of Education:** Armed conflicts can lead to the destruction of educational institutions, displacement of populations, and loss of access to education for many individuals. This is particularly critical for children forced to endure wartime conditions.
- **Resource Limitations:** Armed conflict often diverts resources that could be used for educational development. Funds and infrastructure previously allocated for education may be redirected to defense and humanitarian needs.
- **Psychological Impact:** Armed conflict can have a negative psychological impact on students and teachers. Stress, anxiety, and post-traumatic stress disorder can complicate both learning and teaching.

Prospects of Education in Times of Armed Conflict

- **Distance Learning:** The use of information technology and online resources can help maintain the possibility of education even in wartime conditions. Distance learning allows students and teachers to stay safe and continue their education.
- **Flexible Learning Formats:** Adapting educational programs and offering flexible learning schedules can assist students living in wartime conditions. The option to choose subjects and learning methods helps better meet the needs of students.

- Psychological Support: It is essential to provide psychological support for students and teachers who have experienced armed conflict. Psychologists and counselors can help address mental health issues and stress.
- International Cooperation: Wartime conditions often transcend borders, and international cooperation can be a key factor in resolving educational issues. International organizations and countries can provide assistance in rebuilding the education system.

Conclusions: Education in times of armed conflict presents significant challenges, but with the right strategies and approaches, it is possible to preserve learning opportunities and ensure stability for the future. The prospects of education in such conditions lie in the intelligent use of innovative technologies, psychological support, and international collaboration. It is important to understand that education is a crucial factor in rebuilding society after armed conflict and contributes to the creation of a stable and peaceful future.

BATSUROVSKA, Ilona

<https://orcid.org/0000-0002-8407-4984>

KUREPIN, Viacheslav

<https://orcid.org/0000-0003-4383-6177>

Mykolayiv National Agrarian University, Ukraine

MODERN FEATURES OF THE FUNCTIONING OF THE EDUCATION SYSTEM DURING MARTIAL LAW

The **aim** of the presented paper is to analyze modern features of the functioning of the education system during martial law.

Results. Martial law is a state of emergency that can be declared in a country in times of crisis, often involving the military taking control of the government. During such periods, various aspects of society, including the education system, undergo significant changes to align with the government's priorities and maintain order. In this article, we will explore the modern features of the functioning of the education system during martial law, drawing on historical examples and potential contemporary scenarios.

- 1. Government Control and Censorship.** One of the defining features of the education system during martial law is increased government control and censorship. Authorities often curtail academic freedom, limit access to information, and control curriculum content to align with the ruling regime's ideology. This can result in the suppression of critical thinking and the promotion of government-approved narratives.
- 2. Restricted Academic Freedom.** Martial law regimes frequently restrict academic freedom to prevent dissent and maintain control over the education system. Professors, teachers, and students may face severe consequences for expressing dissenting views or engaging in activities deemed subversive. This stifling of intellectual discourse can have long-lasting effects on a nation's education system.
- 3. Nationalistic Education.** Under martial law, education tends to prioritize a nationalist agenda, emphasizing loyalty to the government and the suppression of regional or ethnic identities. History and social studies curricula may be rewritten to glorify the regime and its leaders while downplaying or distorting historical events.
- 4. Surveillance and Monitoring.** Modern technology has given authorities new tools for surveillance and monitoring in the education system. Schools and universities may be required to install surveillance cameras, and students and teachers could be subject to increased scrutiny, both online and offline. This surveillance can deter dissent and further erode privacy rights.
- 5. Disruption of Normal Academic Activities.** Martial law often disrupts normal academic activities, with schools and universities sometimes being used as military bases or detention centers. This not only hinders students' access to education but also creates an atmosphere of fear and uncertainty.
- 6. Propaganda and Indoctrination.** The education system during martial law may be used as a tool for propaganda and indoctrination. Students may be subjected to daily patriotic rituals, and textbooks may contain biased

information designed to promote the regime's ideology. Critical thinking and objective analysis may be discouraged.

- 7. Limited Access to Higher Education.** In many cases, access to higher education becomes limited during martial law. Admissions processes may be influenced by political factors, and scholarships or opportunities for studying abroad may be reduced or eliminated, leading to a decrease in academic mobility and opportunities for students.

Conclusions. The functioning of the education system during martial law is marked by increased government control, censorship, restricted academic freedom, surveillance, and the promotion of government-approved narratives.

These modern features can have a lasting impact on a nation's education system, undermining its role as a bastion of free thought and intellectual growth. It is essential to recognize and address these challenges to safeguard the integrity of education during times of crisis and upheaval.

BATENKOVA, Alona

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

TRAINING IN TIME OF WAR AND IN PEACETIME

The aim of this topic is to explore the differences and similarities between the learning process in wartime and peacetime. The study **aims** to determine how the circumstances of war affect the learning process and what consequences this has for individuals and society as a whole.

Results. When martial law began, most people did not even think about education in general at first. But without learning, nothing will happen, because learning is one of the main factors for a person. There is even an expression “A person is a lifelong learner”. Advantages and disadvantages of studying in wartime:

Training during the war:

People have become more adaptive, and this is reflected in the fact that we can adjust to any conditions, i.e., if there is no anxiety, we study and use this time to the maximum. Also, people have learned to prioritize, which means that before martial law, people could spend their time and attention on some small things, but nowadays, people try to highlight the most important things, which is also reflected in education, for example, the number of hours previously allocated to a discipline may be reduced, or if the discipline is not very important, it may be removed altogether.

Education in peacetime:

If we take into account the pre-war period, there was more attention paid to various details. If you look at it from the point of view of learning, there was a deeper study of the discipline, which helped to learn all the subtleties in order to apply these skills in your life in the future.

Social development was also an equally important aspect, as students were able to communicate live, and this has many advantages, such as sharing experiences, learning new material, etc. The results of the study show that in times of war, learning becomes more difficult and more challenging, as individuals are under great stress, which can affect their ability to absorb information and retain it. At the same time, war can stimulate individuals to become more interested in learning and developing their knowledge in order to contribute to the struggle for peace and stability in their country.

Conclusions. In peacetime, learning can be more efficient and convenient because individuals have access to a variety of resources and can be more focused on their learning goals. However, sometimes in peacetime there may be a lack of pressure and motivation to learn, which can lead to a decrease in the quality of the learning process. Thus, we can conclude that training is different in wartime and in peacetime, and the effectiveness and efficiency of the training process depends on this. It is necessary to take these factors into account when planning and conducting training, regardless of the conditions in which it takes place.

BERESTOK, Olha

<https://orcid.org/0000-0001-7912-9592>

Sumy National Agrarian University, Sumy, Ukraine

MAIN ASPECTS OF THE CONCEPT OF "SAFE EDUCATIONAL ENVIRONMENT" IN THE PARADIGM OF MODERN CHALLENGES

Nowadays, society expects from an educational institution not only the status of an educational resource, but also a space for development and cooperation both internally and with the outside world. The modern educational environment creates a unique individualized and personalized experience, where everyone has the opportunity to realize themselves in a safe educational environment. Hence, the **aim** of the research is to distinguish the basic concepts of safe educational environment.

Results. A safe educational environment is a set of conditions in an educational institution that make it impossible to cause physical, property and/or moral harm to the participants of the educational process. The main aspects of the concept of "safe educational environment" are a psychologically safe educational environment, an ecologically safe educational environment, and an informationally safe educational environment.

The basic feature of a safe educational environment is the presence of positive factors, namely: trust, benevolence, approval, tolerance, and the absence of negative factors, such as: aggressiveness, conflict, hostility, manipulation.

Ukrainian teacher Svitlana Sovgira defines an ecologically safe educational environment as a system of psychological and pedagogical conditions, influences and opportunities that ensure the protection of the individual from the negative impact of environmental factors that determine the optimality of interaction with the natural world.

According to Ukrainian teachers Valerii and Nellie Kyrylenko, the use of ICT in education has a massive global impact on the individual. The negative impact of information on the modern educational environment is vivid and it makes application of information nowadays to be essential.

Conclusions. Therefore, a safe educational environment provides: the presence of safe learning and working conditions comfortable interpersonal interaction, contributing to the emotional well-being of students, teachers and parents; the absence of any manifestations of violence; the availability of sufficient resources for their prevention compliance with the rights and norms of physical, psychological, informational and social security every participant in the educational process.

BEREZNIUK, Anna

BORIAK, Inna

Kyiv Cooperative Institute of Business and Law

BASIC LEGAL TERMS IN THE STUDY OF THE ENGLISH LANGUAGE

The **aim** of the research topic is the definition and characteristics of the legal term and the study of its structure.

Results. Learning English is essential for lawyers because it contains a lot of specific terminology that is a key of the professional activities. The study of the methodology and technique of translation of legal texts of foreign legal systems are scientists and practitioners such as V.I. Karaban, O.I. Kononov, G. P. Protsenko, L. M. Shestopalova, etc.

A legal term is a word or phrase denoting its own legal concept that reflects the specifics of state-legal phenomena (advocacy, arbitration court, presidential inauguration, plaintiff, law and order, justice, legal entity, legal fact, jurisdiction) and has a definition (definition) in legal literature (legislative acts, legal dictionaries, scientific and legal works) (Миронова, 2013).

According to the structural characteristic, the prevailing state legal terms are derivatives. Of these, more than half of the terms are word combinations, and all the others are created using various methods of word formation (suffixing, prefixing, compounding).

All legal terms for their structure are divided into simple (consist of one word), for example, *legislation* – a law or set of laws suggested by a government and made official by a parliament; complex (consists of two words), for example *Supreme Court* – the most important law court in the US; terms of the word combination (consists of several components), for example, *specific performance* – an order given by a court stating that a work contract must be carried out exactly as it was written.

The combination of knowledge of a foreign language and a deep understanding of the legal field allows a specialist to provide high-quality translations of specific legal texts (Lohinova & Osadcha, 2022). Consequently, the structure of a legal term is divided into such categories as simple terms, complex terms and phrase-terms with the addition of relevant examples.

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BIELIAIEVA, Olena

<https://orcid.org/0000-0002-7246-4694>

A. S. Makarenko Sumy State Pedagogical University, Ukraine

THE ROLE OF INNOVATIVE PROJECTS IN EDUCATION, SCIENCE, ECONOMY

The **aim** of this paper is to analyze the role of innovative projects in education, science and economy.

Results. Innovative projects are specially planned and organized initiatives aimed at introducing new ideas, technologies, products or services for the purpose of improvement, development and achievement of specific goals in various spheres of life, such as business, science, technology, education, medicine and others. These projects may include creating new products, improving existing processes, reforming approaches to solving problems, or introducing new methods and technologies.

The importance of innovative projects is recognized in many areas, such as: education, science and economy. I would like to consider innovative projects and their benefits from different angles in order to prove their invaluable role in various areas of life.

Speaking about education, I would like to note that innovative projects in education make it possible to improve educational methods, to develop and implement new, more effective methods of education. For example, the use of online platforms, interactive lessons and virtual reality can make learning more accessible and interesting.

The teacher's role is changing. Innovation allows teachers to become mentors and facilitators of learning, not just providers of information. They can stimulate students' critical thinking, creativity and independence.

There is a possibility of global access to education. Thanks to the Internet and online courses, innovative projects are expanding educational opportunities around the world. They help overcome geographical limitations and provide access to quality education. Looking at the impact on science in more detail, we can say that there is an active promotion of research and experiments.

Innovative projects finance and support scientific research in various fields. They allow scientists to use advanced technology and equipment to solve complex problems.

It is thanks to innovative projects that technological breakthroughs occur. Attempts to discover something new and unexplored often lead to technological breakthroughs that can change the way we live and work. Examples are the invention of the Internet, gene editing, and the development of artificial intelligence.

Innovative projects contribute to the interaction of various fields of science. There is a process of interdisciplinarity. This can lead to the creation of new areas of research and solving complex problems.

Speaking about the economy, I would like to note that there is active stimulation of entrepreneurship. Innovative projects contribute to the creation of new enterprises and markets. They can cause a "startup boom" and create new business opportunities.

Investments in innovation can potentially increase productivity. Innovations can improve production and service processes, resulting in increased productivity and lower costs.

New markets are developing. This will attract new customers. For example, the development of hybrid and electric cars has created a new market for green technology.

Conclusions. In general, innovative projects play a key role in bringing about change and contribute to the advancement of society in all aspects of life. They are the main catalysts for achieving progress in education, science and the economy.

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BOICHENKO, Marianna

Pavlo Tychyna Uman State Pedagogical University, Ukraine

THE DEVELOPMENT OF PRIMARY STUDENTS' PHONETIC COMPETENCE

The **aim** of this paper is to analyze the development of primary students' phonetic competence

Results. English is becoming an increasingly important tool for communication and career success in the modern world. However, the key to learning English is not only the level of knowledge but also competence, which is interpreted differently in different contexts.

Phonetic competence is essential to students' language training and is associated with correctly reproducing sounds and intonations in a given language. Developing this competence in primary school students in English language lessons plays a crucial role in teaching a foreign language.

Since 2018, Ukraine has introduced a new educational system, the New Ukrainian School, which aims to improve education and learning outcomes. According to the latest teaching methodology, much attention is paid to phonetic competence in English lessons.

Several essential factors explain the relevance of the topic of developing students' phonetic competence. The first factor is that knowledge of English opens additional career opportunities, as many international companies use English as a working language. The second factor is that modern curricula place great emphasis on teaching English. Formation of phonetic competence from the very beginning of education allows children to master the language more successfully.

The criteria, indicators, and levels of phonetic competence of primary school students in the NUS English language lessons play an essential role in assessing and monitoring students' progress.

Criteria and indicators include correct pronunciation of sounds, intonations, and the ability to understand and reproduce English.

Levels of phonetic competence can be divided into several stages, usually from beginner to advanced. At the beginner level, learners need to master basic phonetic rules and sounds. For example, learners should be able to pronounce the basic sounds of English correctly, such as /æ/, /i/, /e/, /ə/, /θ/, and /ð/. Children should also be able to distinguish between sounds that may be like those in their native language. For example, the difference between the sounds /v/ and /w/.

Three stages can represent the levels of phonetic competence of primary school pupils. At the elementary level, students master basic phonetic sounds and rules, distinguish them, and understand them in the context of simple words and phrases. They begin to use more complex sounds and intonations at the intermediate level. Students can pronounce more difficult words and phrases at the advanced level with correct intonation and rhythm.

Conclusions. It is important to use active listening with an emphasis on intonation and pronunciation, work with sounds and phonemes, use the game method and video recording, work with texts, constant practice, feedback and correction, and modern technologies for teaching to develop phonetic competence.

BONDARENKO, Stepan

<https://orcid.org/0000-0001-8328-5117>

National Academy of the Security Service of Ukraine

HOW TO DEVELOP EDUCATION AFTER THE WAR: PROBLEMS AND SOLUTIONS

The **aim** of this paper is to analyze the development of education in the post-war period.

Results. Ukraine has been at war for years. Ukrainians' belief in victory and planning for the country's post-war development is something that inspires wonder and respect among our Western allies, and something that gives us strength. As the war continues, the foundations for a new post-war Ukraine are being laid in the rear. We are building consensus in every sector and area to make the most of the window of opportunity for reform when it opens. Until then, we need public discussions to develop a common vision of the priorities for future educational reforms.

There is no doubt that further reforms in education are needed. We face a difficult task: to modernise the system using the best practices of the West, but without losing the positive aspects of the past.

There are achievements of the past. Parents who have travelled to Europe in large numbers in recent months and experienced the realities of German, Polish or Danish school systems unanimously say that Ukrainian children are far ahead of their EU peers in mathematics.

Meanwhile, having experienced the humanity of Western approaches, our children no longer want to return to the rigidly hierarchical relationships that characterise Ukrainian schools. They like the personalised approach of a European teacher. However, their parents are often wary of the excessive «playfulness» of the school there, because it clearly does not provide the level of academic knowledge that its Ukrainian counterpart does.

The situation is similar in higher education. Ukrainian students (mostly girls) who found themselves abroad, fleeing bombs and missiles at home, have happily plunged into the excellent infrastructure of Western universities. As surprising as it may sound to some, the level of knowledge of Ukrainian students often does not lag behind that of their Western peers.

However, our students are losing out to their European counterparts in terms of erudition and broad-mindedness. And it is precisely the opportunity to develop these non-core aspects of higher education that attracts our students to EU universities.

Eventually, students will return to Ukraine (although, obviously, some of them will stay abroad for a long time). Their experience will become a requirement: Ukraine's school and higher education systems will be forced to transform. Worldview, erudition, infrastructure, humanity of approach – these elements will be the need of the hour.

Conclusions. But it is important in this process of «Europeanisation» not to lose those knowledge achievements that, in particular, allowed our students to "taste" otherness abroad without feeling any backwardness.

BOZHKO, Yuliia

<http://orcid.org/0000-0002-7235-0670>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE ROLE OF SMALL TALK IN ENGLISH LANGUAGE COMMUNICATION

Small talk is an integral part of English language communication, establishing connections between individuals. It involves a casual and light conversation about non-controversial topics, such as weather, hobbies, or current events. While small talk may seem trivial, it plays a significant role in building rapport, creating a comfortable atmosphere, and facilitating effective communication.

This article **aims** to explore the importance of small talk in English language communication and discuss how it contributes to successful interpersonal interactions.

Results. Small talk serves various purposes in English language communication. It acts as an icebreaker, helping individuals initiate conversations and establish a positive tone. By engaging in small talk, individuals can create a friendly and approachable image, which can foster trust and openness (Holmes, 2003).

Furthermore, small talk allows individuals to gauge each other's interests, opinions, and backgrounds, enabling them to find common ground and establish connections. It creates a sense of belonging and community, making communication more comfortable and enjoyable.

In addition to its social functions, small talk also serves linguistic purposes. It provides opportunities for language learners to practice and improve their English skills in a low-stakes environment (Ellis, 2008).

Learners can enhance their vocabulary, fluency, and pronunciation through small talk. It allows them to practice different conversation strategies and develop their understanding of cultural norms and expectations (Kasper, & Rose, 2002).

Small talk also plays a vital role in professional settings. It is often used as a rapport-building tool during job interviews, business meetings, and networking events. Engaging in small talk allows individuals to establish a connection with colleagues, clients, or potential employers, creating a positive impression and facilitating future collaborations. It helps individuals build professional relationships, develop trust, and enhance teamwork.

Despite its numerous benefits, small talk can be challenging for non-native English speakers. Cultural and language differences may influence individuals' confidence and ability to engage in small talk (Gudykunst, 2003).

However, with practice and exposure, individuals can improve their small talk skills and feel more confident participating in English language communication.

In **conclusion**, small talk is an essential aspect of English language communication. It facilitates connections, establishing rapport between individuals. Small talk plays a crucial role in creating a comfortable and friendly atmosphere, building trust, and enhancing interpersonal relationships. It also provides language learners with opportunities to practice and improve their English skills in a low-stakes environment.

Furthermore, small talk is valuable in professional settings, helping individuals build professional relationships and network effectively. Developing small talk skills can contribute to successful English language communication and enhance overall language proficiency.

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Thi Hoang Hoa CHAU

<https://orcid.org/0000-0002-5738-9147>

King Sejong Tra Vinh University, Vietnam

ANALYZING CULTURAL REPRESENTATION IN AN EFL COURSE BOOK IN VIETNAM

In anticipation of the intercultural goals set forth in Vietnam's new general education English as a Foreign Language (EFL) curriculum, numerous locally crafted EFL coursebooks have been introduced, featuring an infusion of intercultural elements.

Purpose: this research endeavours to delve into the depictions of culture and intercultural dynamics within a recently adopted 10th-grade EFL coursebook titled "Global Success."

The results of our content analysis reveal two key findings. Firstly, the coursebook thoughtfully incorporates a diverse array of international, domestic, and target culture elements to ensure the broad spectrum and intercultural richness of EFL educational objectives.

Secondly, our analysis suggests that the presence of intercultural interactions, both in terms of quantity and quality, falls short of expectations.

Conclusion. Consequently, we recommend that authors of EFL coursebooks consider the contextualization of cultural content and task design, enabling students to personalize their cultural knowledge, experiences, and perspectives.

Alternatively, if the pursuit of simplicity and accessibility remains a priority for the coursebooks, it falls upon EFL instructors to adapt the lessons, enriching the cultural content and fostering in-depth intercultural discussions to nurture learners' intercultural communicative competence as a primary objective of English as a Foreign Language education.

CHEPURNA, Valeriia

National Technical University “Kharkiv Polytechnic Institute”, Ukraine

BORROWING MILITARY LEXICON: LINGUISTIC AND EDUCATIONAL CONSIDERATIONS

This article **aims** to delineate distinct attributes inherent in the adoption of military terminology within the Ukrainian language and its implications for the education of experts in the post-conflict era.

Results: In contemporary mass media, there is a discernible proclivity toward the incorporation of loanwords, particularly neologisms, predominantly observed in military terminology. This phenomenon is intricately linked to the sociolinguistic dynamics of linguistic evolution and aligns with the communicative functions of language. It reflects society's endeavour to harness language's potential in satisfying its communication requisites, thus leading to an amplification in the repertoire of semantically rich nomination mechanisms.

This trend is notably accentuated during critical junctures in societal development, exemplified by the 2022-2023 Russo-Ukrainian war. The surge in lexical borrowings is intricately linked to the particulars of aid and support provided to Ukraine by allied nations. These borrowings predominantly pertain to categories encompassing firearm nomenclature, munition nomenclature, military equipment designations.

Higher education institutions bear the responsibility of nurturing proficient, knowledgeable, and intellectually adept professionals, attuned to the demands of their respective fields. In accordance with higher education standards, an essential component of a student's general competencies includes the ability to communicate proficiently in both the official state language and a foreign language, both in spoken and written form.

The study of loanwords within the Ukrainian language and the nuances associated with its translation from languages such as English or German retains its relevance, particularly for future philologists, historians, and other specialists. This knowledge equips them to explore and comprehend this pivotal chapter in our nation's history.

Competency in the language of one's profession significantly expedites the assimilation of specialized subjects, enhances work efficiency, and fosters adeptness in professional undertakings and inter-professional relations. Hence, the study of subjects like "Ukrainian for Specific Purposes" and "Foreign Language for Specific Purposes" assumes a paramount role in the education of prospective experts.

Instructors tasked with these subjects must duly consider the intricacies accompanying the incorporation of military lexicon when imparting lexical norms pertinent to professional communication. Beyond military vocations, an appreciation of borrowed military terminology is invaluable for forthcoming professionals across diverse technical domains.

Conclusion: An analysis of scientific literature and media accounts underscores the significance of the infusion of military terminology into the language, which undeniably leaves an indelible impact on the education and training of future specialists.

CHERENKOVA, Hanna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

IMPLEMENTATION OF MODERN REQUIREMENTS FOR ELECTRONIC EDUCATIONAL GUIDES

The **aim** of this paper is to analyze the implementation of modern requirements for electronic educational guides.

Results. In the modern information society, traditional textbooks are losing their monopolistic position, while electronic textbooks and guides are becoming an increasingly important element of education. Unlike an electronic textbook, an electronic guide can be considered as a small set of materials on a specific topic intended to expand students' knowledge and includes a wider range of interactive elements such as videos, audios, animations, and more.

Modern requirements for electronic educational guides include several key aspects. Firstly, they should be accessible, providing maximum convenience for use on different devices and platforms. Secondly, electronic educational guides should ensure high-quality learning material, the ability to meet user needs, and stimulate interest in learning. Thirdly, electronic educational guides should be open for interaction and collaboration, allowing users to exchange thoughts and ideas during the learning process.

When creating electronic guides, it is advisable to incorporate various multimedia elements, such as:

- Video and audio materials. The use of videos and audios can help students better understand complex concepts and illustrate examples. It can also make learning more engaging and captivating.
- Interactive elements. Various interactive elements like quizzes, assessments, games, and simulations can help students test their knowledge and skills, as well as enhance the comprehension of the learning material.
- Animations and illustrations. The use of animations and illustrations can visualize complex processes and concepts, making learning more understandable and accessible.
- Graphs and diagrams. Graphs and diagrams can assist students in better comprehending statistical data and other information that may be challenging to grasp without graphical representation.
- Internet resources. Incorporating links to external sources can help students find additional information related to the learning topic and expand their knowledge.

Conclusions. Authoring tools for creating interactive exercises and games, such as Articulate Storyline, Adobe Captivate, H5P, which allow content creation with the use of multimedia elements and interactive tasks. Video and audio editors, such as Adobe Premiere Pro, Camtasia, and Audacity, for creating video and audio materials. Graphic editors, such as Adobe Photoshop and Adobe Illustrator, for creating graphics and illustrations. Virtual reality and augmented reality technologies, which enable the creation of interactive and emotionally engaging elements for learning. Cloud services for data storage and processing, such as Google Drive and Dropbox, allow for storing and sharing electronic guides with students and other users.

**CHERNOVOL-TKACHENKO, Raisa
BALYUK, Viktoriya**

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

SAFE EDUCATIONAL ENVIRONMENT AT SCHOOLS: A CASE FROM DERGACHY COMMUNITY

A safe educational environment is a platform where schoolchildren communicate with teachers, peers, as well as various materials of educational content are available for them. A teacher should have a positive influence to schoolchildren' abilities, psychological states and predict the possibilities of learning at schools. A dialogue should take place in such a way as to prevent aggression, conflicts, and manipulation. Schoolchildren should be warned that in case of an alarm, they can leave safely the school and go to a safe place. The problem of a safe educational environment in the conditions of martial law in wartime in Ukraine is important. The **purpose** is to describe some activities of a safe educational environment after de-occupation in Dergachy community, Kharkiv region.

Results. There are main activities. On January 19, 2023, the actors of the Afanasyev Kharkiv Puppet Theater visited Dergachy and presented a wonderful fairy tale to the school audience. The schoolchildren reacted quickly to various funny situations, empathized with the characters of a tale and rejoiced sincerely at their successes. After the performance, representatives of the "Dobrochynets" charity fund together with the actors presented sweets, toys and clothes to schoolchildren donated by the Ukrainians from Chicago. On January 25, 2023, a real musical festival was held in Dergachy, organized by the musicians of the "Eastern Opera" – the project of the Kharkiv National Academic Theater of Opera and Ballet.

On February 7, 2023, together with the charitable organization Codeit4life, an 'indomitable point' was opened on the territory of the Dergachy community, where schoolchildren have a safe and comfortable space for moral recovery, development and leisure in case of blackout. The space is designed for three age groups – for pre-schoolchildren 4-6 years old, schoolchildren 7-10 years old and 11-14 years old, as well as divided into 3 zones: play, study and for parents. The space was located in the clean basement with two exits, a toilet room. The space was equipped with central heating, electricity, a projector, a TV, Internet access and a 5 kW generator.

In May, at the seminar "Rebuilding local schools for sustainability", the Ministry of Education and Science, together with the State Agency for Reconstruction and Development of Infrastructure of Ukraine, allocated funding for the reconstruction of the damaged lyceum from Dergachy. In addition, the following issues were also discussed: specific needs of communities in restoring access to education; the experience in decision-making, provision and implementation of restoration measures; informing international donors about the urgent needs of involvement in reconstruction and restoration according to the "bottom-up" principle at the local level; updating a safe educational environment.

Conclusions. To sum up, different activities are important for a safe educational environment.

CHETVERYK, Victor

<https://orcid.org/0000-0002-2137-2095>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

MULTIMEDIA RESOURCES IN FOREIGN LANGUAGE LEARNING FOR INTERCULTURAL COMPETENCE DEVELOPMENT

Globalization, European integration, informational development, and intercultural contacts actively affect the field of foreign language learning, where the main problems remain the insufficient level of language proficiency and cultural differences among communication participants. In the modern scientific educational sphere, it is noted that multimedia tools can help solve these problems, but they need to be adapted to contemporary educational conditions and requirements.

The **aim** of the presented paper is to consider modern multimedia resources as a means for developing intercultural competence in the context of foreign language training of students.

Results. Note that the utilization of multimedia in foreign language learning has the potential to improve motivation, comprehension of the material, memorization (memory retention), and communication skills.

It also aids in understanding cultural features, history, traditions, and language stylistics, fostering a better appreciation of individuals from other countries and cultures.

Particularly, multimedia resources serve as valuable supplements to traditional learning methods, especially in distance learning. Video materials, audio files, and other multimedia resources can serve as illustrative tools, demonstrating various social contexts with diverse language patterns and situations (Веретюк, 2023). This enables students to gain a practical understanding of how to apply the learned lexical-grammatical material within real-life contexts.

For instance, utilizing diverse videos featuring dialogues and monologues enables students to grasp (understand) language usage in real-life situations and observe how distinct cultures respond to specific social contexts.

In the higher education sphere, using video fragments with English monologues or speeches of a scientific and professional nature empowers students to master language expression structures, and the grammatical aspects of scientific discourse, and expand their English professional vocabulary, characteristic of English-language discourse.

In the current stage, special emphasis should be placed on modern mobile applications that facilitate independent work among students, enhancing their foreign language competence.

These applications grant access to abundant multimedia content from reputable sources like *YouTube*, *TED*, *Google Podcasts*, and *Coursera*, among others, enabling students to engage with this material at their convenience (Четверик, 2023). One of the key advantages of such resources is the availability of authentic and pertinent (relevant) materials beneficial for students across various specializations in developing both foreign language communicative competence and its intercultural component (Гуліч, 2023).

It is essential to highlight that effective use of these resources necessitates thorough study, adaptation, and the creation of tasks that cater to individual student needs and their level of foreign language proficiency.

Conclusions. Therefore, the appropriate and thoughtful use of modern multimedia technologies in the process of foreign language training makes it possible to solve several educational issues, in particular, it simultaneously helps to form (and develop) foreign language communicative competence and promotes the development of intercultural competence using modern and authentic materials.

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DANYLENKO, Anastasiia

Pavlo Tychyna Uman State Pedagogical University, Ukraine

THE USE OF INNOVATIVE TECHNOLOGIES AND INTERACTIVE TEACHING METHODS FOR FL COMPETENCE FORMATION IN PRIMARY SCHOOL LEARNERS

The process of teaching a foreign language in a modern school is primarily an interaction between a teacher and a student, with the student as the subject of learning and communication being on an equal footing with the teacher.

The **aim** of the study is to identify the main methodological aspects that should guide the teacher in the formation of foreign language competence in the English classroom by using innovative technologies and interactive teaching methods. For this problem investigation we used empirical and theoretical research methods, and the method of expert evaluation was chosen to obtain the results.

In the process of teaching English, the practical application of innovative teaching methods affects the effectiveness of its learning. It gives possibilities for interaction with all students, master a significant amount of material, and teach children to be successful, confident and competitive.

The **result** of the study is that English language teaching should use methods that encourage learners to be creative, and productive, act, communicate in English and express their ideas. The most current innovative technologies include: *problem-based learning, project-based learning, game-based learning and interactive technologies*. Using these teaching methods, the teacher focuses on the mental activity of students and their capabilities. More attention is paid to interactive technologies. Interactive methods of teaching English include: presentations, conversations, role-playing games, discussions, brainstorming, competitions with practical tasks, creative activities, the use of ICT and the involvement of a native speaker. Students learn to interact with each other and this helps to develop a competitive personality.

The use of the mentioned above technologies creates an activity-based approach methodology. A set of knowledge and skills is formed through the creation of life situations and encourages students to improve themselves. In structuring the learning process, the teacher should remember that students can learn knowledge only by working with it.

In **conclusion**, a modern teacher should use interactive teaching technologies at different stages of a foreign language lesson, which not only motivates students to learn a language but also improves the classroom atmosphere and promotes cooperation and mutual understanding between students and teachers. Such activities ensure satisfaction with the learning process and motivation to participate in it.

DMYTRENKO, Maryna

Humanitarian-Pedagogical applied college of Pryluky, Ukraine

LEARNING A FOREIGN LANGUAGE AFTER THE WAR

Nowadays the humanities are an integral part of society development. They define our cultural heritage, shape our ethical values and contribute to understanding essential global issues. Moreover, learning and teaching the Humanities have played an important role both during war and peace periods of time throughout whole human history. There is no doubt, living in modern realities it is extremely important to react to various changes quickly, especially educational ones. Today Ukraine's educational community is in a difficult situation when it is necessary to respond to the martial law in no time and adapt to teaching under the current war circumstances immediately. The world scientists have got accustomed to such terms as distance education, online education and mixed learning. Besides, following traditional teaching methods has become impossible and sometimes even irrelevant. Introducing new technologies in the educational process has greatly facilitated teachers' work in modern realities and provided the opportunity to improve the organization of training, to change approaches effectively and take up a more contemporary teaching level. According to the Humanitarian-Pedagogical College foreign language teachers' practical experience, most students consider it to be most important to learn how to communicate and express their thoughts. It's essential to stress your attention, the more students communicate and speak, the more organized and informative a foreign language class becomes. This article focuses on the imitation teaching methods in professional training students. Imitative situations are such situations in which students try to imitate the surrounding reality. They work independently, individually or in groups. In fact, simulation games help to develop attention and cognitive thinking skills and enable students to find the only correct solution to the problems they face. It is known that simulation learning technologies are the most appropriate ones for students to learn the foreign language in their professional training process. The case study analysis is an effective method of activating students' learning and cognitive activity, characterized by the following features: the presence of a specific situation, the development of solutions to situations by the team and the public defence of solutions. Furthermore, the case study method is aimed at helping students to realize the learning process hardships better. A student is challenged not so much to find the unique answer as to ask the right and useful questions that suggest the existence of several alternative solutions. Simulation training deals with developing certain skills and structuring purposefully created temporary group participants' relevant knowledge, where the student has the opportunity to make sure that his or her professional choice is correct. Role-playing (staging) is a playful way of analysing specific situations based on the team relationship problems. This method of active learning the contextual type is appointed at developing behavioural, both professional and social nature skills and involves the introduction of certain theatricality elements, since the presentation of the situation, its analysis and decision-making are carried out in person. In conclusion, the effectiveness of the learning process in Pedagogical College foreign language classes is largely ensured by the use of imitation methods that allow students to show their creative activity, teach them responsibility and direct their efforts towards achieving the goal and fostering independence.

DOTSENKO, Nataliia

<https://orcid.org/0000-0003-1050-8193>

Mykolayiv National Agrarian University, Ukraine

PECULIARITIES OF DISTANCE LEARNING DURING THE WAR

The **aim** of this paper is to analyze the peculiarities of distance learning during the war.

Results. War, with its disruptive impact on societies, poses unique challenges to various aspects of life, including education. In times of conflict, traditional brick-and-mortar schools may be rendered unsafe or inaccessible. As a result, distance learning becomes a crucial alternative, allowing students to continue their education under extraordinary circumstances. This article explores the peculiarities of distance learning during times of war, shedding light on both its advantages and challenges.

Digital Divide Intensified. One of the foremost challenges in implementing distance learning during war is the exacerbated digital divide. While some students may have access to the necessary technology and internet connectivity, many others may not. This divide is often more pronounced in conflict-ridden regions where infrastructure may be damaged or disrupted, leaving students without the means to participate effectively in online education. Governments and organizations must prioritize bridging this divide to ensure equitable access to education during war. **Security Concerns.** Ensuring the safety and security of students and educators during distance learning in a war zone is paramount. Cybersecurity becomes a significant concern as students may be exposed to hacking, phishing, or other malicious activities. Additionally, educators may need to be trained in safeguarding sensitive information and maintaining the confidentiality of students in such precarious circumstances. **Mental Health and Emotional Well-being.** War brings with it psychological and emotional trauma, not just for combatants but also for civilians, including students. The isolation and lack of social interaction that can come with distance learning exacerbate these issues. **Flexibility and Adaptability.** Distance learning during war requires a high degree of adaptability from both students and educators. Frequent disruptions, power outages, and other logistical challenges may force sudden changes in the learning environment. This flexibility is essential for maintaining continuity in education during uncertain times.

Innovations in Pedagogy. War necessitates innovative pedagogical approaches to ensure effective learning. Educators may need to adapt their teaching methods to suit the virtual environment, incorporating multimedia resources, interactive platforms, and self-paced learning modules to cater to diverse learning needs.

Conclusions. Distance learning during times of war is a complex and multifaceted endeavor. It demands solutions that address the digital divide, ensure security, prioritize mental health, foster adaptability, allocate resources effectively, engage the community, and innovate in pedagogy. Education remains a vital element of stability and hope during conflict, and addressing the peculiarities of distance learning in these challenging circumstances is essential for the well-being and future prospects of affected students.

EKSTAM, Jane

<https://orcid.org/0000-0003-0624-8448>
Østfold University College, Halden, Norway

YOUNG ADULT STORIES OF NON-VIOLENCE IN A VIOLENT WORLD: THE CASE OF *THE WAY BETWEEN*

My presentation demonstrates how fiction has the potential to enable young adult readers to understand and cope with the world in times of peace as well as war. ‘Art is, in effect, a way of knowing and coping with the world, one that initially, perhaps, served to strengthen human groups. While its function has mutated somewhat in modern culture, art still serves as a way of coping and knowing – of exercising problem-solving skills, of imagining alternatives, of simply taking a break from the strains of daily living’ (Liza Sunshine, *Introduction to Cognitive Cultural Studies*, 2010, 263-4).

Literature gives us time to reflect, and to form our own opinions. As M. Eaton et. al claim, ‘The ability to pause, step above the fray, reflect on the past, and imagine alternative futures can help students think more systematically and develop creative strategies commensurate with the scale of the problems we face’ (*Contemplative Approaches to Sustainability in Higher Education. Theory and Practice*, 2017, xviii).

Rivera Sun’s first novel in her award-winning ‘Ari Ara’ series, *The Way Between: A Young Orphan, An Old Warrior, A Great Adventure* (2017) is recommended for teachers, students, peace advocates and youth activist groups as well as ‘old soldiers that wish for the better way’. It is an exciting and thought-provoking blend of action, adventure, and fantasy. The protagonist, Ari Ara, must master the path between fight and flight before violence destroys everything she loves. *The Way Between* suggests creative solutions to conflict, and challenges violence with active nonviolence and peace. It is an excellent basis for discussion both in the classroom and at home.

‘As storytellers’, Barbara Henderson reminds us, ‘our gift to the globe lies in the *what ifs*. With every alternative vision, every alternative worldview, and every character whose choices and motivations differ from our own, we pose a *what if* question which will play out in young readers’ minds’ (‘Just Imagine’. Ch. 14 in *Fantasy and Myth in the Anthropocene. Imagining Futures and Dreaming Hope in Literature and Media*. Marek Oziewicz et al., 2022). This is particularly important in time of war. *The Way Between* teaches us the value of peace and helps us cope with the world.

ELISENBERG, Marion
HANSEN, Jessica
HÄBLER, Camilla,
NÆSJE, Ragnhild

Østfold University College, Norway

ACTION FOR SUSTAINABLE DEVELOPMENT

Sustainable development is one of three interdisciplinary topics, together with *Health and life skills* and *Democracy and citizenship*, in the Norwegian curricula. Previous research shows that there is a tendency for teachers and student teachers not to feel confident to teach topics related to sustainable development (Borg et al., 2012; Eames et al., 2010; Evans et al., 2012; Guanio-Uluru, 2019).

In this study, we explore the potential of literature didactics in working with sustainable development. The study is based on the Sustainability Library, a Norwegian version of the UN's Sustainable Development Goals Book Club.

The Sustainability Library is an online resource that offers teaching programs for schools and libraries to arrange reading circles for children aged 6-15. The library consists of book lists with activities for all 17 sustainability goals and offers participants a literary and conversation-based understanding of the UN's sustainability goals.

The study is carried out as an action research project. The action research involves researchers at a teacher training course in collaboration with teachers at a primary school. The teachers implemented a didactic literature teaching program in three classes in the 5th and 7th grades, where the pupils read a fiction novel related to the UN's sustainability goal number 1- no poverty.

In the presentation, we will examine the potential role of fiction in conveying values and themes related to sustainable development focusing on UN's sustainability goal number 1. The study includes four types of data material:

- (1)** recordings of literary conversations between teacher(s) and pupils;
- (2)** interviews with teachers;
- (3)** reflection texts from teachers;
- (4)** pupil assignments.

The study preliminary conclusions contribute to knowledge about the didactic potential for work with sustainable development through books from the Sustainability Library.

At the same time, the study contributes to strengthening the collaboration between a teacher training institution and the field of practice.

How education can deliver relevant contributions for sustainable development should be the subject of our attention, and therefore we find our study relevant for future teachers and current teacher educators.

FEDORIAKA, Dmytro

H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine)

PLUSES AND MINUSES OF MODERN LMS SYSTEMS

The digital age has revolutionized education through Learning Management Systems (LMS), presenting both advantages and challenges. This essay delves into the merits and drawbacks of contemporary LMS, exploring their impact on the educational landscape.

The **aim** of the presented paper is to analyze the pros and cons of modern LMS systems.

Results:

Pros:

Accessibility and Flexibility:

Modern LMS breaks down geographical barriers, allowing learners to access materials from anywhere. This flexibility benefits those with diverse schedules.

Rich Multimedia Content:

LMS integrates multimedia like videos and virtual reality, enhancing learning experiences. This caters to different learning styles, increasing engagement.

Progress Tracking and Analytics:

LMS tracks learner progress and provides analytics. Educators can monitor performance, identify areas of improvement, and personalize learning paths.

Cost-Efficiency:

LMS reduces costs associated with traditional methods. A centralized digital platform minimizes expenses for materials, travel, and infrastructure.

Collaborative Learning:

LMS fosters collaboration through discussion forums and group projects, creating a sense of community among learners.

Cons:

Technical Challenges:

Implementation requires technological infrastructure, posing difficulties in regions with limited internet access or outdated technology.

Lack of Personal Interaction:

While LMS offers convenience, it lacks the personal touch of traditional classrooms, potentially impacting the quality of the learning experience.

Security and Privacy Concerns:

Transitioning to digital platforms raises concerns about the security and privacy of sensitive student data, necessitating robust safeguards.

Conclusion: In conclusion, modern LMS offers accessibility, flexibility, and advanced learning tools. However, technical challenges, the absence of personal interaction, and security concerns must be addressed to strike a balance and fully realize the potential of LMS in education.

GULICH, Oleh

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE IMPORTANCE OF QUALITY CONTROL OF PHYSICAL EXERCISES DURING DISTANCE LEARNING

The **aim** of this paper is to analyse the importance of quality control of physical exercises during distance learning.

Results. Quality control of physical exercises during distance learning is crucial for several reasons, as it plays a significant role in ensuring the effectiveness, safety, and overall success of remote physical education. First of all, quality control helps verify that students are performing exercises with correct techniques. Proper form is essential to prevent injuries and maximize the benefits of physical activity. Without direct supervision, it's crucial to provide clear instructions and feedback to ensure students understand and execute exercises correctly. Verification of exercise techniques reduces the risk of injuries. Incorrect form or overexertion due to misunderstanding instructions can lead to injuries. Quality control mechanisms, such as video demonstrations, real-time feedback, or periodic check-ins, help identify and correct potential issues before they escalate. Regular quality control can enhance student engagement by providing constructive feedback and acknowledging improvements. Motivation is crucial for sustained participation in physical activities, and knowing that their efforts are recognized and supported can encourage students to stay committed to their fitness routines. Quality control allows for individualized attention and adjustments based on students' fitness levels and needs. Tailoring exercises to individual capabilities ensures that students are appropriately challenged without being overwhelmed or underwhelmed, promoting a positive and inclusive learning experience. Monitoring the quality of physical exercises aids in tracking students' progress over time. By identifying strengths and areas for improvement, instructors can adapt lesson plans and provide targeted guidance. This supports a sense of achievement and encourages ongoing participation. Quality control enables instructors to provide timely and specific feedback. Constructive feedback is essential for skill development and helps students understand how to make corrections. It fosters a supportive learning environment, even in a virtual setting. Consistency in the quality of exercises ensures that students receive a standardized and effective physical education experience. This is particularly important for meeting curriculum goals and ensuring that students are exposed to a well-rounded set of activities.

Quality control measures can help address issues of accessibility and inclusivity. Instructors can adapt exercises to accommodate students with varying abilities or limitations, ensuring that everyone can participate and benefit from physical education. Quality control holds both students and instructors accountable for their roles in the learning process. Students are accountable for following instructions and putting in effort, while instructors are responsible for providing accurate guidance and meaningful feedback.

Conclusions. In summary, quality control in distance learning for physical exercises is vital for ensuring the safety, effectiveness, and overall positive experience of students engaged in remote physical education. It requires a combination of clear communication, interactive feedback, and individualized support to create a successful virtual learning environment for physical activity.

GULICH, Ihor

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE APPLICATION OF RESEARCH METHODS FOR ASSESSING THE PHYSICAL QUALITIES OF ATHLETES

The **aim** of this paper is to analyze the application of research methods for assessing the physical qualities of athletes.

Results. The application of research methods for assessing the physical qualities of athletes is crucial in various aspects of sports science and coaching. Performance tests, such as sprint tests, agility drills, and vertical jump assessments, are used to evaluate an athlete's specific physical abilities relevant to their sport. This information helps coaches tailor training programs to enhance specific performance aspects. Methods like one-repetition maximum (1RM) testing, isokinetic dynamometry, and power assessments (e.g., using a force plate) are applied to evaluate the strength and power of athletes. This information guides the design of strength training programs to improve athletic performance. Assessing aerobic and anaerobic capacity through methods like VO₂ max testing, lactate threshold assessments, and repeated sprint tests provides insights into an athlete's cardiovascular fitness. This information is vital for developing endurance and conditioning programs. Biomechanical analysis, which includes techniques like motion capture and force plate analysis, helps understand the mechanics of sports movements. Coaches can use this information to refine technique, prevent injuries, and optimize biomechanical efficiency. Methods such as dual-energy X-ray absorptiometry (DEXA), bioelectrical impedance analysis (BIA), and skinfold thickness measurements help assess body composition. This information aids in developing nutrition and training plans to achieve optimal body composition for performance. Assessing flexibility through tests like the sit-and-reach test or goniometry helps identify areas of limited range of motion. Coaches can then incorporate targeted stretching and mobility exercises to address specific flexibility needs in athletes. Monitoring physiological markers such as heart rate variability (HRV), blood lactate levels, and subjective measures of fatigue helps assess the recovery status of athletes. This information guides the adjustment of training loads to prevent overtraining and optimize recovery. Evaluating neuromuscular function through electromyography (EMG) or isokinetic testing provides insights into muscle activation patterns and potential imbalances. Coaches can design corrective exercises to address neuromuscular deficiencies and reduce injury risk. Psychological assessments, including surveys and questionnaires, help understand an athlete's mental resilience, focus, and motivation. Coaches can tailor mental training strategies to enhance the psychological aspects of performance. Incorporating wearable technologies, GPS tracking, and video analysis allows coaches to gather real-time data on athletes' movement patterns, workload, and tactical decisions. This information aids in individualizing training plans and optimizing game strategies. Assessing the proficiency of specific skills related to the sport, such as shooting accuracy or passing precision, helps coaches identify areas for skill development and refinement in athletes.

Conclusions. By applying these methods, coaches and sports scientists can gain a comprehensive understanding of athletes' physical qualities, enabling them to tailor training programs, minimize injury risks, optimize performance, and enhance overall athlete development.

GULICH, Olena

<https://orcid.org/0000-0002-3846-1916>

H.S. Skovoroda Kharkiv National Pedagogical University (Ukraine)

APPLICATION OF MODERN PLATFORMS AND TOOLS IN LEARNING ENGLISH

Modern platforms have significantly impacted and transformed the landscape of education by providing innovative solutions that enhance teaching, learning, and collaboration.

The **aim** of the presented paper is to analyse application of modern platforms and tools in learning English.

Results. Platforms like *Moodle*, *Canvas*, and *Blackboard* provide a centralized hub for course materials, assignments, quizzes, and communication. They facilitate online learning, allowing students and teachers to interact seamlessly. Platforms such as *Zoom*, *Microsoft Teams*, and *Google Meet* enable real-time, virtual classrooms, fostering synchronous communication, video conferencing, and collaboration among students and educators (Гуліч, 2023).

Platforms like *Coursera*, *Udacity* offer a wide range of online courses and degrees from universities and institutions worldwide, making education more accessible to a global audience.

Tools like *SMART Boards* and *Promethean ActivBoard* provide interactive displays that enhance classroom engagement. Teachers can incorporate multimedia content, annotate lessons, and encourage student participation.

Platforms such as *Kahoot!* introduce game-like elements into the learning process, making education more engaging and motivating for students.

The application of modern platforms and tools has greatly transformed the English language teaching too. These tools have made this process more interactive, personalized, and accessible (Четверик, 2023).

Platforms *Duolingo*, *Babbel*, and *Rosetta Stone* offer interactive lessons, gamified experiences, and personalized learning paths to help learners acquire and practice English skills.

Memrise, *Quizlet*, and *FluentU* – these apps use flashcards, quizzes, and real-world videos to reinforce vocabulary, grammar, and language comprehension skills.

Platforms *Coursera*, *edX*, and *Khan Academy* provide English language courses taught by instructors from around the world, allowing learners to access high-quality educational content remotely.

Grammarly, *ProWritingAid* assist learners in improving their writing skills by providing grammar and style suggestions in real-time. Listening to native speakers through podcasts and audiobooks (*BBC Learning English*, *ESL Podcast*) help to improve listening comprehension and pronunciation.

Websites like *British Council*, *ESL* offer a variety of resources, including lesson plans, quizzes, and interactive activities to support English language learning. Gamified language learning apps make the process enjoyable and motivate learners to practice regularly (Солошенко-Задніпровська, 2023).

Conclusions. By integrating these modern platforms and tools, learners can enjoy more dynamic and effective language learning experience, allowing for flexibility, personalization, and real-world application of English language skills.

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GENGCHEN, Liu

<https://orcid.org/0000-0003-3160-9057>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

TEACHING THE CHINESE LANGUAGE IN CHINA WITH SONGS

Teaching the Chinese language in China begins from the primary school. The **purpose** is to analyze 3 principles of using songs in teaching Chinese to schoolchildren. **Results** are the following.

1. Teaching songs develops children's listening skills. Songs have simple language, melodiousness, rhythm, repetition. Children's language is simple, a rhyme is simple, a sentence structure is short.

Most children's songs when learning the Chinese language reflect the description of children's world. An important feature of children's songs is an active language. Children can not only improve their listening skills by listening songs, but also develop the ability to concentrate while listening, it develops listening comprehension. In the long term, the skill to listen and understand what is heard is very important, it is the first step to developing speaking skills. The use of songs also contributes to develop children's vocabulary.

2. Teaching songs to children corrects their incorrect pronunciation. Correct pronunciation is an important basis for mastering the Chinese language. Chinese is considered to be a complex language and polyphonic characters are very common. If children are not taught properly, it causes speech misunderstanding. Children's songs have a unique learning advantage. Children's songs are beautiful and touching. They contribute to memorizing and learning. Songs, as a rule, are positive and funny.

As a task, teachers can pronounce the words in bright and cheerful children's songs by rearranging or replacing them, and children identify purposefully the correct sounds in the words. Finally, language twisters, nursery rhymes, and songs can create witty and funny challenges at lessons. It awakens the natural children's curiosity; it motivates them to learn with pleasure. Children remember songs, poems, and colloquialisms easily by learning with interesting learning tools. Children can practice words in nursery rhymes too. Their pronunciation becomes more articulate, for example, as in a Chinese children's song "The Wall" about a drum and a tiger.

3. Teaching songs develops children's speech. Through songs, children learn to speak. Of course, parents do not teach their children the language consciously by talking to them about everyday topics. Definitely, a native language is learned subconsciously in the early stages, through constant repetition. Children's songs serve as a learning tool during conscious language learning. Children's songs have a large and rich learning material, and most of them are taken from children's life. For example, kittens, puppies, fish, birds, piglets, donkeys, all the subjects that often appear in children's songs are things that children can easily see in their everyday lives. Children love to play, they love active games, so, a speech develops quite well. A teacher can easily implement children's songs into learning the Chinese language.

So, the **conclusion** is teaching the Chinese language is facilitated by the use of songs. It develops listening skills, vocabulary, pronunciation, speech.

GURINA, Sofia
SMOLIANIUK, Natalia

<https://orcid.org/0000-0003-3524-581X>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

PSYCHOLOGICAL AND PEDAGOGICAL SUPPORT OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS UNDER MARTIAL LAW

Aim. To find out the peculiarities of the organization of psychological and pedagogical support for children with special educational needs under martial law.

Results. The introduction of martial law in Ukraine has become a challenge for the implementation of the educational process and the education of children with special educational needs. Children who already belonged to a special category and had learning difficulties faced a number of new obstacles. Some of them lost access to the educational environment, others had to change their place of residence, and some suffered psychological trauma due to being under fire, in bomb shelters, misunderstanding the situation, and losing their usual living conditions.

During the period of martial law in the country, conditions were created for every student to participate in the educational process without hindrance. In some regions of the country, the educational process is provided remotely, while in the rest of the country it is provided in a mixed and offline form. Not only education, but also psychological and pedagogical support has become remote for children with special educational needs, so the Ministry of Education and Science of Ukraine pays considerable attention to psychological support for participants in the educational process. Psychological assistance is provided through the electronic offices of psychologists and social pedagogues operating on the websites of educational institutions, as well as round-the-clock hotlines.

In the process of educating a child with special educational needs, the greatest burden is placed on parents. They are the ones who have to monitor the child's compliance with the study and rest regimen, plan the daily routine and maintain psychological balance in the family.

The All-Ukrainian School Online platform for distance and blended learning and the Support a Child telegram channel, as well as educational hubs that host educational content useful for children and parents, will be helpful. First of all, parents need to carefully dose the child's learning load, alternate work with a computer or other gadget with rest, change the child's activities to prevent fatigue, do physical exercises, use games and special techniques based on individual capabilities. Parents can seek help from specialists from inclusive resource centers or other specialists at their place of temporary residence. Unfortunately, practice shows that not all regions have specialists from inclusive resource centers who can work offline.

Conclusions. Sufficient legal and regulatory frameworks have been created to organize and provide psychological and pedagogical support for children with special educational needs under martial law, but the overload of inclusive resource centers and the development of methodological recommendations for effective coordination and cooperation of all participants in the educational process remain unresolved.

HALYTSKA, Olena

<https://orcid.org/0000-0003-0677-2071>

Lesya Ukrainka Volyn National University, Ukraine,

IMPLEMENTATION OF THE OFF-LINE METHODS IN A LIVE ONLINE MEETING

The **aim** of this paper is to analyze the implementation of the off-line methods in a live online meeting.

Results. In this abstract I would like to consider how to implement the off-line methods in a live online session.

For example, the method SPAZIERGANG (WALKING) can also be implemented in a live online session to promote exchange and interaction among participants. I can use speed dating format to facilitate short, individual conversations between participants and create a rotation format where participants can regularly talk to different people in separate video chats. OR: I can use the breakout room function in the online meeting platform to create smaller groups. I assign participants to groups and give them a certain amount of time to talk to each other in the breakout rooms. Afterwards, participants can return to the main meeting room and new groups can be formed to encourage interaction.

I can also implement the FISHBOWL/AQUARIUM method in a live online session: I divide the participants into two groups – a main group (ZOOM window in the centre) and an observer group (ZOOM window on the periphery). The main group will be the focus of the discussion, while the observer group will observe the discussion. At the end, the observers will have the opportunity to evaluate the discussion behaviour and give feedback.

At the end, I would like to describe another method LANGUAGE CAFÉ with which I have also had positive experiences. This activity promotes active speaking, cultural understanding and intercultural exchange.

First, I prepare the language café by setting up different theme tables or stations in the classroom. Each table represents a specific theme, for example, 'travel', 'food and drink', 'hobbies', etc. Each table should have materials such as pictures, cards, texts or props that support the theme.

Students are divided into small groups and each group member is assigned a specific theme or table station. Students move from table to table in their groups, similar to a café.

At each table they have the opportunity to talk about the corresponding topic, ask questions, exchange opinions and use their vocabulary and grammar in the foreign language. They can ask each other questions, role-play or simply talk about their personal experiences. This method can be implemented in a live online session in a conference tool.

Conclusions. One can use the breakout room function in the online meeting platform to create smaller groups. This way, students can talk to each other in the breakout rooms. Afterwards, the participants can return to the main meeting room and I can do a reflection and summary session together with the students, sharing what they have learned.

HAOZHE, Jiang

<https://orcid.org/0000-0002-9300-892X>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE FOR YOUNG LEARNERS

The foreign language communicative competence development for young learners takes place through interconnected teaching and learning of all types of language and speech activities. The **purpose** is to list some underpinnings for foreign language communicative competence development for young learners.

Results. Teaching and learning a foreign language begin from in the 1st grade of primary schools, mostly all over the world, in China, and in Ukraine, and mostly, a foreign language is English. At the end of the 4th grade young learners should have level A1 of foreign language competence, for all types of speech activities (speaking, listening, reading, writing). Undoubtedly, learning at school becomes the leading activity. Among the underpinnings for foreign language communicative competence development for young learners I offer to mind the following underpinnings:

- Pay special attention to speech activity and appropriate communicative skills, as speaking as listening. In particular, speaking and listening should be dominant in the 1 grade. Encourage young learners to communicate in a foreign language as much as possible, even at the elementary level. Use clear and simple instructions, examples, so, that young learners understand what is expected of them, give young learners simple activities during lessons, so, that young learners can do them with understanding. Give young learners tasks within their age capabilities; tasks should be clear and achievable, but interesting and stimulating, so, that young learners get joy and satisfaction from their activities at the end of each lesson.
- Use simple, short types of activities, combine activities, since the memory, attention, and concentration of young learners are short-term. Young learners, as a rule, lose interest in an activity if it is boring, difficult or long. Use songs, rhymes, chants, storytelling to make the lesson interesting, enjoyable, fun. Use modern visibility; flash cards, animation, video; young learners rely on it when learning a foreign language.
- Apply foreign language communication through games. As it is known, the game is an integral part of young learners' life experience. Young learners get to know the world around them with games: they get new knowledge and develop communicative skills. Games promote motivation and are the most important ways of learning a foreign language for young learners. Enter no more than five lexical units at the same lesson. The principle of "less is better" should be implemented when learning a foreign language, because there is a limit to the new words that young learners can master at lessons, just not to feel like a failure.

Conclusion is to mind the underpinnings while teaching young learners, it helps to develop a foreign language communicative competence.

HLADKIH, Anastasiia

<http://orcid.org/0000-0001-7609-4056>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

ORIGAMOTHERAPY AS A METHOD OF RESTORATION OF PSYCHO-PHYSIOLOGICAL CAPABILITIES OF STUDENTS IN PEACEFUL POST-WAR TIMES

The **aim** of the work was to investigate the impact of using origami therapy in lessons during the war.

Aims of the study:

1. To analyze the theoretical bases of the psychophysiological regulation of the functional states of the participants of the educational process.
2. To determine the functional state of the students according to the indicators of the cardiovascular system.
3. To check the effectiveness of using origami therapy in lessons during the war.

Object and subject of research: The object of the research is origami therapy in lessons during the war. The subject is 122 students of 5th grade of school № 53 in the city of Kharkiv.

Research materials and methods:

1. Determination of the psycho-emotional state of students according to the Spielbergen-Khanin method.
2. Determination of adaptation potential of students.
3. Repeated removal of control indicators after the use of origami therapy.

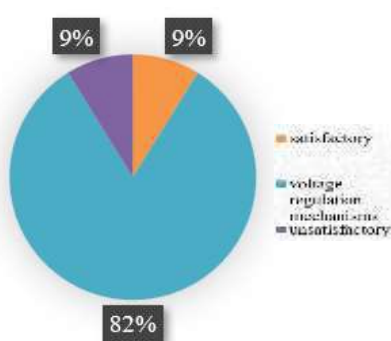
Results and conclusions:

It is shown that, against the background of military operations, the indicators of the students' functional states do not correspond to the age norm.

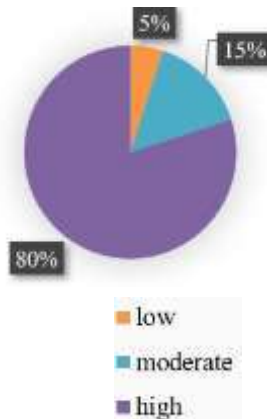
It was established that the indicators of adaptation potential indicate the deterioration of the working capabilities of the heart as a result of the progressive increase in fatigue under the influence of constant stressogenic factors.

The high level of anxiety caused by war events was revealed.

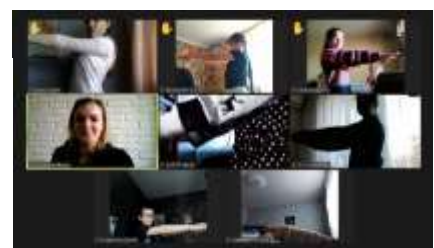
It is recommended to use origami therapy in lessons to stabilize the psychophysiological abilities of students.



Distribution of students according to indicators of adaptation potential



Distribution of students by level of anxiety



HOLUB-ZAICHENKO, Vita

Pavlo Tychyna Uman State Pedagogical University, Ukraine

THE USE OF GAMING TECHNOLOGIES IN ENGLISH LESSONS

Using game technology in English lessons is an excellent way to make learning exciting and motivating. They improve learning and help students learn new vocabulary and grammar rules. Moreover, games can help improve communication skills and increase confidence in using language. Like other methods used in teaching the game, they also have certain disadvantages:

- not all games can achieve specific educational goals;
- some teachers may consider games ineffective and wasteful because they are like entertainment;
- knowledge and skills acquired during the game may not be fully mastered;
- students who are used only to game learning methods cannot develop the skills of independent educational and cognitive activity necessary for self-education and personal development (Yagodnikova, 2011).

When conducting the game and evaluating the results, the following aspects should be taken into consideration:

- students can only sometimes devote as much time to tasks as necessary; they are often forced to adapt to the rhythm of the game;
- students get too excited;
- when students do not believe in the reality of the "proposed circumstances", all the teacher's efforts will be wasted, and the game will become an ordinary discussion (Dubich, 2010).

There are specific difficulties in the use of game technologies that affect the quality of the game:

- long and complicated preparation for game lessons;
- complexity of organization with a partial understanding of the material;
- the use of games during tests is not appropriate;
- games should not be used in lessons where they cannot provide good results;
- partial or complete lack of motivation to play among students (2013).

High-quality teacher preparation is essential because teachers act as facilitators during game-based learning. They must thoroughly understand the game's mechanics, learning outcomes, and potential challenges that students might face. Prepared teachers can effectively guide students, answer questions, and provide additional explanations when necessary. They can also assess students' progress, identifying areas where individual students or the class as a whole might need extra support. Games can be a powerful tool for engaging students, enhancing their learning experience and achieving excellent academic outcomes.

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HRONA, Nataliia

<https://orcid.org/0000-0003-2578-2865>

Communal Establishment «Pryluky Humanitarian and Pedagogical Applied College named after Ivan Franko» Chernihiv Regional Council, T.H. Shevchenko National University «Chernihiv Colehium», Ukraine

HIGHER EDUCATION STUDENTS' EMOTIONAL INTELLIGENCE IN THE WAR CONDITIONS: CONTENT, FORMATION, DEVELOPMENT IN THE CONTEXT OF LEARNING THE UKRAINIAN LANGUAGE

The **purpose** of the article is to reveal the peculiarities of the content, the development of the mental condition, which affects the process of forming the higher education students' emotional intelligence while studying the Ukrainian language.

To assess the higher education students' EI level a modified advanced intelligence test was used according to N. Hall's method. The tested completed the tasks appointed to assess their ability to perceive, identify, understand and manage emotions. The calculation of the test results was determined by the indicators of emotional awareness, the ability to manage emotions, self-motivation, empathy, and recognition of other people's emotions.

The **results**. According to the conducted empirical research, it was established that the emotional stability is correlated with the emotional flexibility, which is manifested in the ability to manage emotions, to be aware of one's emotional states, to live them correctly, and to be able to recover. Learning the Ukrainian language (practical aspect) provides the empathy, gives the opportunity to improve, to stabilize the emotional condition, and to manage emotions productively. Increasing the interviewer's definite individual indicators, in particular, the emotional awareness, the ability to manage emotions, empathy suggests that at the beginning of the full-scale invasion (February-March), the emotional instability prevailed, when classes could not be held due to objective signs. The results for November-December showed that the phase of stabilization had come, the students realized that everything had changed and they needed to live according to the new conditions.

Conclusions. The analysis of the research methodology showed that changes in the levels of emotional intelligence were influenced by the educational process and the study of the Ukrainian language in particular. While working we were convinced that studying the Ukrainian language contributed to regulating the students' emotional condition. The Ukrainian language is the cultural code of the people, preserves the memory and ideas of generations, studies the social and cultural characteristics of the speakers, therefore its study is a means of stabilizing the emotional intelligence.

Taking into account that the Ukrainian language as a mental basis affects the emotional condition of a person, we believe that the study of any language material in combination with the communicative aspect gives students the opportunity to unblock the communication and be emotionally balanced.

The application of cognitive method elements in the course of studying the Ukrainian language, which deepens and diversifies learning, draws attention to the semantic meanings of the language units, provides a cognitive key to understanding human behavior and emotions.

HRYNCHENKO, Ihor

<https://orcid.org/0000-0001-7469-5819>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

KOLII, Serhii

<https://orcid.org/0009-0001-4527-2902>

V. N. Karazin Kharkiv National University

FACTORS INFLUENCING THE REDUCTION OF COMPETITIVE PERFORMANCE IN VOLLEYBALL PLAYERS

Competitive activity in volleyball is characterized by a large number and variety of confounding factors of subjective and objective character, which have a negative influence on the mental state, the nature of behaviour and the effectiveness of competitive activity of volleyball players. The **purpose**: to define external and internal factors which influence on a mental state and game behaviour of volleyball players.

Results. To achieve the set purpose, the questionnaire for volleyball players “Disruptive factors in competitive activity of volleyball players” was developed and experimentally tested.

Based on the results obtained, an analysis of the significance of the identified sources of disruptive factors was carried out: the group of the most powerful disruptive factors was made up of the two most significant sources out of twelve for volleyball players, namely: the condition of the hall 98% (lighting, size of the hall, court surface, low ceilings, location of the stands, colour of the hall) and the opponent's game actions 85% (attacking shots, quality serve, block, delays in the game, fast pace of the game, game without mistakes, new combinations, etc.)

The group of factors with an average degree of influence includes the following factors: game on the day of arrival 75%, coach's remarks 65%, uncomfortable uniform 60%, presence of loved ones at the game 55%, game in a small hall 55%, game in a large hall 50%, match duration 50%, game after injury 45%.

Among the sources that have minimal influence are three factors out of twelve: a large number of spectators 35% (distracts from the game, causes excitement, aggressive behaviour of spectators), unfamiliar opponent's team 30% (unfamiliar game tactics, physical data, high-quality equipment), pre-kick-off behaviour of the opponent 25% (impudence and disrespect, rude behaviour, emotional and noisy behaviour).

Conclusion: Identification of external and internal factors that influence the competitive activity of volleyball players will allow coaches to draw reasonable conclusions about which factors are most likely to have a negative impact on their wards.

HRYTSKO, Tatiana

Pavlo Tychyna Uman State Pedagogical University, Ukraine

METHODS OF IMPLEMENTING ENGLISH LANGUAGE INTERNET RESOURCES IN THE EDUCATIONAL PROCESS

The **aim** of this paper is to analyze methods of implementing English language internet resources in the educational process.

Results. Priority in modern higher and secondary education should be given to independently acquiring knowledge in the vast educational environment. The Internet environment allows for interaction between students and teachers, pupils, and educators, motivating and stimulating creative and experimental educational activities. Analysis of scientific literature has identified optimal ways to use the Internet in the lesson system.

The first approach involves structuring the lesson around working online with specific educational and informational programs. Using the Internet during the lesson usually involves working with educational and informational websites. This method is effective for presenting new material or studying specific topics (Ярова, 2005).

The second approach involves using the Internet as a structural element of the lesson. The lesson is built around various activities: using email and writing letters, analysing dialogical situations, watching videos, taking online tests, and completing tasks to reinforce skills. Educational situations can be created during the lesson using electronic resources (Clark, 1972).

The third approach is using the Internet for students' independent work. This method is an effective way to use the Internet for educational purposes. Tasks can be individualised for each student or collective. Students usually find completing project tasks with their peers more engaging (Clark, 1972).

Websites useful for foreign language teachers can be categorised as informational and educational. Informational resources are used to find interesting information, creative tasks, and additional materials. Educational websites contain exercises and tasks to develop various language skills, taking into account students' proficiency levels (Ярова, 2005).

Conclusions. At the current stage of scientific development in Ukraine, it can be confidently stated that the time when the ability to translate adapted, non-authentic texts from a foreign language and vice versa was sufficient proof of language proficiency had passed. Integrating modern technologies into learning a foreign language expands and diversifies the curriculum, providing access to various materials, enhancing students' motivation to learn, and allowing them to work with the language conveniently. This approach promotes individualised learning and effective mastery of the foreign language.

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HUCHENKO, Kateryna

<https://orcid.org/0009-0000-4395-1277>

*Kyiv University of Intellectual Property and Law of the National University
«Odesa Law Academy»*

**APPROPRIATENESS OF TEACHING THE COURSE "MILITARY
CRIMINAL OFFENCES" UNDER THE CRIMINAL CODE OF
UKRAINE: THE WAR BURDEN AS A STAMP**

The Constitution of Ukraine states: «The defence of the Fatherland, independence and territorial integrity of Ukraine, and the respect for its state symbols are the duties of citizens of Ukraine. Citizens perform military service in accordance with the law» (Article 65).

Ensuring the internal and external security of Ukraine has always been a topical issue for the state. In the current situation, when Ukraine is essentially in a state of armed conflict, this has a significant impact on the state of crime in various spheres of life and statehood, including in the Armed Forces of Ukraine and other military formations established in accordance with the law.

War has always left its mark on people's minds. Therefore, there is an acute question of loyalty between the study of military law and the course on criminal law of Ukraine devoted to military criminal offences.

It should be noted that this course will be devoted to the study of the problems of criminal liability for offences against the order of military service under the criminal law of Ukraine. Nevertheless, the theoretical and methodological foundations of criminal liability for war crimes will be considered, a historical and comparative discourse will be conducted, and the social determination of criminal liability for these crimes will be determined.

The author makes a theoretical generalisation and proposes a new solution to the issues of the concepts of "war crime" and "corpus delicti of a war crime". The author defines the system of war crimes and its place in the system of the Criminal Code of Ukraine.

The controversial issues of qualification of war crimes and peculiarities of application of punishment are considered. This will be an excellent and correct option for scholars, teachers, postgraduate students, adjuncts, students, cadets of law schools, higher military schools and military educational units of higher education institutions, legal practitioners, military personnel, members of the Ukrainian Parliament, employees of the state apparatus, as well as anyone interested in the problems of criminal liability under the criminal law of Ukraine.

A thorough study of the specialised literature allows the author of this study to conclude that there is currently a lack of comprehensive studies of the system of offences against the order of military service are not available, since the above-mentioned scholars paid attention to individual corpus delicti of military crimes.

The current concept of criminal law regulation of this institute of criminal law is based on the scientific achievements of the last century without due regard to modern national realities and foreign experience.

HURENKO, Olha

<https://orcid.org/0000-0003-3562-7818>

LYNDINA, Yevheniia

<https://orcid.org/0000-0002-4615-6807>

POPOVA, Anastasiia

<https://orcid.org/0000-0001-5176-0059>

Berdyansk State Pedagogical University, Ukraine

INCLUSION POLICY AT BSPU: ANALYSIS OF THE STATE OF IMPLEMENTATION

In the modern world, inclusive education is becoming an increasingly relevant and necessary component of society. Its purpose is to create an educational environment in which everyone has equal access to knowledge and the opportunity to develop their potential regardless of their special educational needs (according to the Constitution of Ukraine, Article 53 - Everyone has the right to education). In this context, inclusion policies in higher education institutions become an important lever for ensuring equality and diversity in education.

A study was conducted to determine the level of inclusiveness and barrier-free accessibility at Berdyansk State Pedagogical University (hereinafter BSPU). The working group developed a questionnaire that contained questions, the answers to which indicate important trends and prospects for the development of inclusiveness at this university. The survey involved 36 people from the university administration at all levels.

The analysis of the responses of respondents at different levels of management, namely vice-rectors (8.3%), deans (1.1%), heads of departments (36.1%), deputy deans (30.6%) and heads of university structural units (13.9%), showed that the university has a consistent policy aimed at creating an inclusive educational environment in the higher education institution: 36.1% of respondents believe that it is at a high level, 50% - at a sufficient level. The issue of education for people with special educational needs is actively discussed at all levels of university management; the institution has specialized services/departments/centers that can implement support programs for higher education students with special educational needs (66.7%); the university provides professional development for teachers on barrier-free and inclusive education (30.6%); there is a stable dialogue with the authorities and relevant stakeholders on the application and implementation of the principles of diversity, equity and inclusion (66.6%).

At the same time, only 22.2% of respondents noted a high level of organization of supervision, mentoring and intervision for staff at BSPU. The qualitative analysis of the survey showed a discrepancy and lack of clearly defined regulatory documents that would regulate the organization of inclusive education at the university. The administration records a low level of motivation of academic staff to work with students with special educational needs.

Thus, BSPU has already made a significant step towards creating an inclusive educational environment. However, there are certain issues that still need to be improved. A detailed analysis of these aspects and the development of strategies for further development, which the university is currently working on, will help it achieve even greater success in implementing inclusive education.

HUSENKO, Kristina

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

MERITS AND DEMERITS OF INTRODUCING ARTIFICIAL INTELLIGENCE IN THE EDUCATION SYSTEM OF WARTIME

After the full-scale war started, Ukrainian educators and students have turned to online studying which offers a variety of digital tools: interactive platforms, messengers, video conferencing, classrooms, educational games, online courses, etc. Among them, artificial intelligence (AI) plays the most crucial role as it is found in thousands of apps that provide us with information related to our preferences.

AI is being tremendously implemented in teaching methods and in the field of the current Ukrainian education system in general. Moreover, it has a good potential to not only maintain but also improve the way Ukrainian teachers teach and students learn during the war. But does education only benefit from AI?

The main **purpose** of the research is to identify advantages and disadvantages of implementing artificial intelligence in education system.

Results. The first benefit is the possibility of immersive personalized learning students are provided with. Some AI tools, like ChatGPT, can analyze pupil's learning success and create for them tailored learning materials based on their needs, strengths and interests. Moreover, AI uses a wide range of virtual tools so that students have an opportunity to explore the space, visit museums, see world monuments, and even more.

From this point of view, AI is quite effective as it helps students stay involved in the process of learning and boosts their motivation. On the other hand, artificial intelligence offers lots of templates, completed tasks, and can accomplish some exercises or researches instead of students preventing them from critical and independent reasoning in this way.

The possibility of grading and assessment is also considered one of the main disadvantages of this technology. AI provides students with instant feedback on their style, syntax and grammar.

Besides this, automated grading saves teachers' time and allow them to focus on other aspects of teaching. But the main risk in this case is that there is no personal connection because AI programs can substitute teachers in many fields of education system. It may have a detrimental effect on socialization and developing students' communicative skills.

In **conclusion**, digitalization of education system is inevitable, even in the case of the war. AI, as one of the popular online tools, can direct us to the right path but it also runs the risk of misuse that we should take into account.

HUSENKO, Kristina

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE ROLE OF INTERACTIVE PLATFORMS IN TEACHING DURING THE WAR

After the Russian full-scale invasion of Ukraine, distance learning has become the only possible and relatively safe form of education in most regions of our country. Although because of the pandemic Ukrainian teachers had already had the experience of remote education, the war made them face new difficulties and, as a result, new responsibilities.

Rocket attacks, constant blackouts, poor Internet connection and stressful life caused by all these factors - all of them have a detrimental effect on the educational process. To be accurate, these circumstances worsen the cognitive activity of students and reduce their educational motivation.

Thus, in order to meet pupils' needs and interests, teachers have been implementing a wide range of interactive platforms which give an opportunity to develop both students' theoretical knowledge and practical skills. It is important to take into account that online education platforms let teachers set those times and dates for classes that are suitable for them and their students. They allow tutors to deliver creative lesson formats and provide individual connection with pupils which can be a good simplifier in the case when not every student has a physical ability to join the whole class at a set time.

The **purpose** of the research is to make a sort of digest of the most useful online sources that can be beneficial in teaching junior and senior learners.

Results: The first one is «Kahoot!». It is possible to create short interactive lessons with polls and quizzes or even entire courses for longer sessions with images, videos, documents and assessment. The basic plan is absolutely free. The second one is «Educreations». This platform allows teachers to create dynamic video lessons (including presentations, projects) that pupils can watch any time, as needed. Besides this, the online tool helps students take control of their success and master each new topic.

«Memorise» is the best platform to teach those students who struggle with their vocabulary. Using flashcards, video clips and different memory techniques, teachers can help pupils in the process of language acquisition.

«Bamboozle» is a ready-to-use platform to create educational games mostly for young pupils. «Genially» provides thousands of templates for creating different kinds of content: games, mind maps, presentations, infographics, training materials, etc. The templates are categorised in order to make it easier to choose. Other useful digital platforms are «Wordwall» (for creating games, flash cards, random wheels), «Mentimeter» (for quizzes, polls, word clouds, multiple-choice questions, etc.), «Padlet» (for creating beautiful boards to collect, organize and present all types of learning material - from video and presentations to documents), etc.

In **conclusion**, this is just a small list of platforms that can be implemented into a wartime education. All of them are useful in making the learning process easier, faster and more exciting as they provide a variety of digital tools suitable for learners of any age.

KAMBERI, Fatjona

<https://orcid.org/0000-0003-4793-9384>

Faculty of Health, University of Vlore "Ismail Qemali", Albania

**FOSTERING A LIFELONG LEARNING APPROACH AT AN
INTERNATIONAL LEVEL THROUGH STAFF MOBILITY:
SUGGESTIONS FROM A FOCUS GROUP ANALYSIS IN ALBANIA**

Purpose: Staff mobility is a good example of learning new concepts and methods as well as developing professional and interpersonal competencies that support the growth of international relationships and improve the lifelong learning approach. Case stories from members of academic staff that have been part of the exchange mobility program several times testify that it can improve lifelong learning practices by introducing new approaches to learning and teaching and implementing them to improve the quality of higher education. A focus group was used to discuss the experience and perceptions of academic staff that had been or not part of the Erasmus+ mobility program in Albania in July 2023 at the University of Vlore. For the discussions, questions based on the Teaching Mobility Hindering Factors and Teaching Mobility Motivational Factors Inventory of the Erasmus+ program were used.

Results: The focus group was composed of nine female academic staff with a mean age of $42 \pm$ (SD) years old. Five participants have never been part of a mobility program. The lack of time and financial support, as well as the lack of possibility to finance the mobility in advance, have been cited by participants as hindering factors that impede their participation in the mobility program. The fear of leaving family, even for a short period of time, and the lack of contacts in the hosting institution were also other factors cited. The lack of confidence in the foreign language impacts the motivation to participate, in particular for those who have not been part of a mobility experience. The different research and disciplinary cultures of the host institution and the different needs and expectations of students affect the implementation of teaching mobility. The participants that have been part of exchange mobility agree that it has improved their competencies in teaching in a foreign language, general pedagogical competencies, and learning about the culture and educational practices at the host institution. The participants have reported that being part of a mobility program has positively impacted their ability to learn new teaching and learning approaches and implement them in higher education. The mobility exchange program has also enhanced their possibilities for international research activities and joint projects. The participants also emphasized that their participation in the Erasmus+ exchange program has received a lot of support from the institution's leadership.

Conclusions: The benefits of an exchange mobility program, in particular for the lifelong education of academic staff, were not well perceived among the participants, particularly among those who had not been part of it. In this regard, more round tables and discussions sharing the experience among colleagues are recommended.

KARACHENKO, Demid
GOLENKOVA, Yuliia

<https://orcid.org/0000-0003-1553-8893>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

OVERCOMING STRESS STATES IN SUMO WRESTLERS THROUGH PHYSICAL AND MENTAL RELAXATION METHODS

Aim. To explore various types of psychological strategies for physical and psychological relaxation that can be employed in the sport of sumo wrestling with the aim of improving athletic performance and aiding in the management or reduction of stress-related emotions (anxiety and anger) and physical symptoms (physical tension and increased heart rate).

Results: Research in sports psychology identifies various types of relaxation strategies, which are classified as physical relaxation strategies or psychological relaxation strategies. The choice of any strategy often depends on the symptoms described by the athlete. Contemporary researchers emphasize the importance of selecting a relaxation type based on the dominant symptoms experienced by the athlete. Maynard I.W. refers to this approach as the congruence hypothesis, which suggests that symptoms of somatic anxiety are primarily treated with physical relaxation, while symptoms of cognitive anxiety are treated with psychological relaxation. This concept can also be applied to the consequences of other emotions, such as anger and excitement. Physical relaxation strategies can be used to reduce muscle tension and improve coordination during performance. Examples of such strategies taught by sports psychologists include breathing exercises, progressive muscle relaxation, and biofeedback:

- Breathing exercises are a simple form of relaxation with benefits such as increased blood oxygen levels, mood improvement, and reduced muscle tension. Proper breathing involves diaphragmatic breathing.
- Progressive muscle relaxation requires the athlete to focus on the gradual tension and subsequent relaxation of specific muscle groups, one by one. It can help sumo wrestlers reduce the intensity of physical symptoms associated with anxiety, such as muscle tension.
- Biofeedback is a method that helps athletes become familiar with autonomic nervous system responses, such as muscle activity, heart rate, and respiration rate. By gaining a deeper understanding of these and other physiological reactions, sumo wrestlers can attempt to control them for improved athletic performance.

Psychological relaxation strategies primarily focus on reducing anxiety, which is a negative emotion stemming from situational assessments of threat or harm. These strategies can also be used to reduce the intensity of other emotions, such as anger or excitement, as excessive levels of these emotions can be distracting if too high. Examples of psychological relaxation techniques include transcendental meditation, mindfulness meditation, and autogenic training:

- Meditation typically involves concentrating on a single thought, sound (often referred to as a mantra), or object. This technique reduces the concentration of attention on negative thoughts and lowers heart rate, blood pressure, and cognitive and physiological changes. Some modern research studies have

demonstrated the successful transfer of meditation from peaceful environments to the sports arena.

- Mindfulness meditation, rooted in Buddhist tradition, can be defined as a state of awareness achieved through purposeful and nonjudgmental attention to the present experience of oneself and others. Mindfulness meditation helps athletes develop awareness without judgment and promotes calmness and focus in potentially stressful situations. Researchers have reported benefits such as reduced incidents of depression, anxiety, and chronic pain. These approaches help sumo wrestlers better understand stress factors in the current situation (e.g., coach's expectations) without judgment, reducing overall evaluations of whether something is good or bad.
- Autogenic training consists of a series of exercises designed to create sensations of warmth and heaviness—feelings typically associated with relaxation. In this form of self-hypnosis, attention is directed toward inducing specific sensations.

Centration is a strategy in which the athlete focuses their thoughts on adjusting their body weight so that it feels as though it is at the center of mass.

Conclusion: The proposed physical and psychological relaxation strategies for sumo wrestlers continue to be studied for their application in the training process. The effectiveness of employing these strategies during competition depends on how well they are practiced. After mastering these strategies, athletes may reduce or control their cognitive and/or physical states, thus using them to perform better in both competition and daily life.

KARPENKO, Maria

Kyryvi Rih State Pedagogical University, Ukraine

FAIRY TALE THERAPY AS A MEANS OF PSYCHOLOGICAL SUPPORT FOR PRESCHOOL CHILDREN IN WAR CONDITIONS

Military conflicts and wars have serious psychological and emotional consequences for preschool children. Unfortunately, this problem becomes particularly acute since the full-scale invasion of Russia into Ukraine. Preschoolers who have experienced wartime events may feel anxiety, fear, post-traumatic stress, and other emotional and psychological difficulties (Gleeson, 2014).

We believe that fairy tale therapy can be one of the potential tools to help these children. This method is relevant because children of this age group are particularly vulnerable to stress and anxiety, and military events can significantly affect their mental stability.

Research aim: To study the effectiveness and possibilities of using fairy tale therapy as a psychological tool to alleviate the difficulties faced by preschool children in war conditions.

Results: Fairy tale therapy is an effective approach to help preschool children who have experienced wartime events. It allows children to express their feelings, understand them, and develop strategies to cope with stress and traumatic events through the use of stories and games.

It helps children express their emotions and deal with stress through stories and games. Together with the children, we select positive stories and discuss them, helping them understand their feelings and develop strategies to overcome difficulties. Fairy tale therapy contributes to psychological recovery and helps children cope with military events.

Conclusions: Fairy tale therapy is an effective method of psychological support for preschool children who are experiencing wartime events.

This approach allows children to express their emotions, develop strategies to cope with stress and traumatic experiences, and contributes to their psychological recovery.

Fairy tale therapy focuses on positive aspects and helps children find ways to cope with challenging life situations.

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KASHKINA, Valeria

Yaroslav Mudryi National Law University, Ukraine

KHOMUTOVA, Hanna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

EDUCATION IN TIMES OF CONFLICT AND PEACE

The **purpose** of the work is to highlight the peculiarities of educational activity in the post-war period.

Results. Life is a chain of constant changes. With changes in all areas of life, we change, and so do our children. The challenges of time have caused changes in the educational sector of Ukraine.

The war changed the plans of the majority of Ukrainian students and education workers. Everyone had to escape physical danger, then recover and try to reconnect with the new reality and the old life. Some children started learning online but lost the opportunity to study systematically due to lack of energy, while others were forced to leave the country in search of safety and faced language barriers. Children lose motivation to study even when there is an opportunity to continue. Even if the child has the opportunity to continue studying, the motivation to study will be lost. This can have long-term consequences for their future, including insufficient skills and vocational education and higher wages.

Military events in Ukraine are a stress for everyone who participates in the educational process. In this context, the role of the psychological service in the education system is significantly increasing to ensure timely and systematic provision of psychological and socio-pedagogical support to all participants of the educational process in accordance with the goals of the education system.

Of course, due to military actions, some time was lost in the education of Ukrainian children. Unfortunately, this will be reflected, because children are the most vulnerable group. At the same time, Ukrainian students are currently learning something new: stability, flexibility.

Teachers also make excellent facilitators, mentors and coaches. Importantly, to reduce the negative impact of war on children's education, efforts must be made to ensure the safety and stability of the education system and ensure access to resources and support.

Conclusions. Education must be provided to all children during the war, regardless of their social status or religion. Regardless of whether we are talking about wartime or postwar times, the main task of the education department now and in the future is to ensure the quality of education at all levels, and naturally to provide new educational and methodological materials, scientific methods and educational literature.

In general, war has a significant negative impact on education, but with the right efforts and support, this impact can be mitigated and help children in the future.

HOLUBNYCHA, Liudmyla

Scientific Adviser, Yaroslav Mudryi National Law University, Ukraine

PECULIARITIES OF USING MODERN TECHNOLOGIES IN EDUCATION DURING MARTIAL LAW IN UKRAINE

Today, digitalization is an important component of the development of society all sectors, including education. After the advent of the Internet and modern gadgets, the process of digitalization development accelerated.

The **purpose** of the paper is to show the peculiarities of using modern technologies in education during martial law in Ukraine.

Results revealed that digitalization is the use of modern technologies in the educational process at all levels. It is the most convenient way to receive information and communicate during martial law. During online learning, it is possible to provide all materials in electronic format, and teachers create communities where they communicate with students and share knowledge and experience. Also, there is an opportunity to receive and continue education for those students who are in the territories where active hostilities are taking place (Holubnycha, 2022).

Today, many programs have been created to help the educational process. The most common platforms used in education are Zoom and Google Teams. These programs have the function of audio and video calls, screen sharing, whiteboarding, lesson planning and recording. Also, Google Teams has the function of creating virtual classes where you can additionally communicate and plan classes.

It should also be emphasized that Yaroslav Mudryi National Law University has developed and uses very convenient learning platforms such as NEIC and ASU. NEIC is a system of electronic distance learning courses that form a single electronic web portal that contains programs of any academic discipline, textbooks, guidelines, regulations, questions for tests and exams, etc. The Office 365 application is also used to organize the work of teachers and students. In this program, teachers and students have access to important resources, such as: Excel Word Power Point. Thanks to these programs, it is possible to create various types of work that can be used by both teachers and students.

Conclusions

Thus, the digitalization of education is one of the most important aspects of modern learning, especially in martial law. Thanks to the development of technology, everyone has the opportunity for a quality education, regardless of their situation, and teachers do not lose their jobs.

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KHRABAN, Tetiana

<https://orcid.org/0000-0001-5169-5170>

*Kruty Heroes Military Institute of Telecommunication and Information
Technologies, Ukraine*

THE GENDER ASPECT OF EDUCATION AT MILITARY COLLEGES & ACADEMIES

The **aim** of the study is to identify the factors that affect the achievement of gender and professional identity balance among servicewomen of the Ukrainian Armed Forces during the Russo-Ukrainian war. **Materials and methods.** Collecting data on the behavior of servicewomen in the process of forming a professional military identity was central to this study. The data was obtained from Twitter and Facebook accounts and blogs, the context of which was shared by military personnel serving in the Armed Forces of Ukraine. Discourse analysis was chosen as the main research method. **Results and discussions.** The impact of gender stereotypes is the main obstacle to the formation of a harmonious military identity of women serving in the Ukrainian Armed Forces. They put pressure on the self-concept of the servicewoman, and the negative influence comes from both the outside and the inside. Depending on the vector, the pressure of gender stereotypes can have different psychological manifestations.

The external pressure of gender stereotypes can lead to a situation of social exclusion or marginalisation of servicewomen. The internal pressure of stereotypes can cause stress for women serving in the military, as they fear confirming negative beliefs about the low abilities attributed to women in stigmatised fields.

This can not only impede the development of their professional identity, but also lead to the rejection of their gender identity. Engaging in hostilities makes it possible to find a middle ground in reconciling the gender and professional identities of female service personnel, thus promoting the creation of a harmonious identity. The rejection of gender paternalism by male soldiers is one factor: in situations where the health and life of each soldier is at risk, the gender of the soldier becomes irrelevant. In this case, the personal qualities of the servicewoman are of the utmost importance. Women can only be viewed as professionals in terms of their ability to handle military emergencies and be a valuable asset to a combat unit.

A key role in maintaining a healthy balance between gender and professional identities is played by the group cohesion of the servicewoman's unit. Psychological compatibility within a unit along with positive personal and professional qualities of each team member can facilitate successful gender integration of women within the armed forces. This holds true even if there's only one woman in a team, meaning the ratio of women to men is no longer a factor.

Conclusions. Servicewomen tend to retain traditionally feminine traits in order to maintain their female identity while forming a balanced military identity, but for the harmonious coexistence of gender and professional identity in a unified self-concept, femininity can transform the principles and characteristics of the profession, and these changes are aimed at increasing the effectiveness of the team.

KHYZHA, Ivan

<https://orcid.org/0000-0002-3566-4267>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

A BREAKTHROUGH OF THE MODERN TIBETAN LITERATURE: A NATIONAL MOTIF

The **purpose** of this abstract is to investigate and find out the main features of national liberation motives to which modern authors of Tibetan origin gravitate. This research takes into account literary works of the main representatives of the late 20th and early 21st centuries and special attention is paid to the concept of national identity implemented in their prose works.

Results. Modern Tibetan literature includes works over the last 20-30 years, starting from the late 80s – early 90s and up to nowadays. The majority of works of Tibetan literature belong to the genre of post-colonial literature and are written in the form of social-domestic genre and appeared as a result of political realities and changes in Tibetan society in the recent years. These works raise the issue of national self-identity of the main and side characters, their self-identification as part of their own nation, characteristic features and factors which demonstrate to the reader the uniqueness of the Tibetan people.

Here are some notable representatives of the modern Tibetan literature. Tsering Woenser is a prominent Tibetan writer, poet, and blogger known for her works that often address social and political issues affecting Tibet. Some of her notable works include *“Forbidden Memory: Tibet during the Cultural Revolution”* and *“Tibet on Fire”*.

Dekyi Tsering is a contemporary Tibetan author and poet known for her works that focus on Tibetan culture, identity, and the struggles of the Tibetan people. Her book *“Sky Train: Tibetan Women on the Edge of History”* is highly regarded. Alai, also known as Alai Amu, is a contemporary Tibetan writer and poet from China. Alai's works often intertwine historical events with elements of Tibetan folklore and mythology, offering readers insights into the complexities and nuances of Tibetan society. *“Red Poppies”* is Alai's most famous work, which was originally published in Chinese in 1998. It is a historical novel set during the early 20th century in the Kham region of Tibet. The story revolves around the lives of Tibetan chieftains and their struggles against external forces.

Conclusions. The study has confirmed that all of the above-mentioned modern writers contribute to the vibrant and evolving landscape of the modern Tibetan literature, offering diverse perspectives and insights into the Tibetan experience, culture, and identity in the contemporary world at the same time, bringing the reader closer to the issue of the national identity of the Tibetan people.

**KIRASH, Iryna
GOLENKOVA, Yuliia**

<https://orcid.org/0000-0003-1553-8893>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE EFFECTIVENESS OF CHILDREN'S FITNESS DIRECTIONS IN CONDUCTING ONLINE TRAINING FOR YOUNG ATHLETES ENGAGED IN SPORTS AEROBICS

Objective. To investigate the effectiveness of using children's fitness in the educational and training process of young athletes engaged in sports aerobics.

Results. Today, we are living in times of "not always controlled life," where daily plans and their structure often need to be revised and frequently canceled or postponed. Therefore, the education process for children has mostly shifted to an online mode, and the educational and training process is no exception.

The complexity of conducting educational and training sessions online, especially for young athletes, is one of the current issues. Moreover, given that the market currently offers a wide variety of possible training directions and sets of physical exercises, choosing a program that would allow young athletes to continue developing their skills and abilities outside the training facility can be challenging.

Children's fitness is quite popular today among the directions of children's physical education. It represents a whole system of mixed physical exercises from various types of physical activity, aimed at improving and strengthening children's health, as well as their comprehensive development.

It is worth noting that when choosing a specific educational and training program, one of the main features of children's fitness to consider is the age of the children. Equally important in the selection process are the conditions in which the training will take place (the premises, the necessary equipment, and other elements required for the training process), as well as the child's perception.

Children's fitness offers numerous directions that cater to different age categories, physical capabilities, and the focus of physical activity. Each type of children's fitness can help develop fundamental physical qualities with significantly reduced injury risk and stress. It can also contribute to a child's emotional and psychological balance.

The main directions of children's fitness include choreography, gymnastics, strength training, aerobics, psychoregulation, elements of yoga, elements of wrestling, and more. Regardless of the mixed physical exercises chosen, it is important to incorporate strength exercises into the training process for 8-12-year-old female athletes engaged in sports aerobics, as most of the sports elements involve stability, support, and twisting.

Equally important is enhancing and developing the flexibility of young athletes, which can give them an advantage in performances. Therefore, it is advisable to use a mix of choreographic fitness exercises.

Every parent and coach wish the best for their children and desires to harmoniously develop a child's emotional state, provide emotional relief, and teach them how to feel and stabilize their emotions in various situations, not only in training and competitions but also in everyday life. Fitness with psychoregulation direction can help achieve this goal.

Implementing these directions of children's fitness into the lives of children helps make the educational and training process of young athletes engaged in sports aerobics as close as possible to the standard "in the gym" training regimen.

Conclusion. Therefore, for the quality organization of the educational and developmental process of young athletes engaged in sports aerobics, children's fitness in the choreographic, strength, and psychoregulatory directions is most favorable.

These directions of children's fitness help improve artistic skills, strength capabilities, and resilience in young athletes. They also contribute to boosting self-confidence, which is crucial both for excellent performances in competitions and for the child's self-perception in society.

KOLISNICHENKO, Maksym
Pavlo Tychyna Uman State Pedagogical University, Ukraine

THE CHOICE OF DIGITAL TECHNOLOGIES FOR APPLICATION IN THE ENGLISH LANGUAGE CLASSROOM

The education quality assurance depends on the high professional skills of foreign language teachers, and their readiness for self-improvement. The transition to a distance and blended learning mode outlined the need to use digital technologies in teaching foreign languages.

Mandatory use of digital technologies during any of the learning modes is an obvious requirement of the time. The **aim** of the study is to determine the features that should be taken into account when choosing digital technologies.

Results. As for face-to-face or, in other words, a traditional foreign language lesson, the choice of digital technologies depends on the goals that the teacher defines when planning their lesson. If the teacher is interested in the high motivation of the students to study the subject, he will work with the involvement of digital resources that can be used in the classroom with physically present students.

For the successful implementation of such a lesson, it is important to have appropriate conditions that are necessary for plan objectives fulfilment and have to be created by the administration of the educational institution and the community where it functions.

In connection with the reform, specialized secondary institutions are working on improving the material and technical base to ensure all the necessary conditions for the digital technologies application. In the course of the study, it was found that during distance learning, the requirements for creating conditions for the use of digital technologies are still out of time, but the responsibility for their choice and functionality lies with teachers.

It is extremely important to follow the recommendation of a balance in using digital technologies during English lessons in a specialized school. During face-to-face training, the share of using digital technologies should not exceed the

share of visual technologies. The function of digital technologies is to complement the educational process in the context of learning English. However, during the distance mode of learning, the use of digital technologies is difficult to reduce due to the necessity of digital applications to conduct it with their help.

Results. The variety of digital resources, tools, and services is huge, so it is necessary to pay attention to certain aspects when choosing them. To prevent technical problems during the lesson, it is essential to test the operation of the service or resource in advance. The choice of the information resource depends on the functions and level of digital competence of the students of specialized secondary education. The fact of importance of using digital technologies, conducting an appropriate evaluation of the functions and feasibility of digital resources for use during lesson planning and its implementation is proved.

**KOLISNYK, Oleksandr
NAUMEYKO, Igor**

Kharkiv National University of Radio Electronics, Ukraine

**LEARNING AND TEACHING AFTER WAR: EMERGENCY
MODELS IN THE OBJECT-PROTECTION SYSTEM**

Aim: The relevance of this research topic is justified by the widespread interest among scientists in the aspects of teaching and learning in the context of post-war recovery and peacetime. In many countries worldwide, including Ukraine, educational systems experience wear and tear exceeding an average of 70%. This creates a pressing need for mathematical modeling of the functioning of safety systems and their restoration during technological and natural crises and disasters.

Results: Our findings can be useful in creating programs and educational environment protection systems in extreme conditions, including educational institutions in conflict and crisis areas. We define classes of pedagogical models and develop analysis methods aimed at enhancing the quality and efficiency of the education system in crisis and conflict conditions. Our research expands the possibilities of stability analysis in educational systems and contributes to finding optimal solutions for their further development.

The tension between efficiency and safety in educational systems poses a complex scientific and technical problem that can only be resolved within the framework of more comprehensive educational systems that take into account economic and social aspects.

It has been established that any crisis or catastrophe is the result of self-organization within an open system. Thus, the construction of mathematical models that describe protective systems and the processes occurring within them remains a relevant issue, especially in the context of education during periods of stability and crisis.

The goal is to enhance the safety of educational systems that combine people and technology during periods of post-war recovery and peacetime. We direct our efforts toward the rational selection of parameters for these systems, based on the development of mathematical models and the refinement of methods for their analysis.

The subject of research is the interaction of various factors and protection within educational systems that have dynamic mechanisms for recovery during accidents and crises. Our research subject consists of nonlinear mathematical models of such educational systems with dynamic protection.

Conclusion: Improvement of mathematical models for educational systems with dynamic protection and their localized variants, expressible as interrelated differential equations with a small parameter. These models differ from existing ones in that they account for the variety of relationships between the rates of interaction of harmful factors and protective systems.

KOMAR, Iryna

<https://orcid.org/0000-0002-3778-2051>

*Mykolaiv Law Vocational College of National University “Odesa Law Academy”,
Ukraine*

ADVANTAGES OF USING ARTIFICIAL INTELLIGENCE WHEN LEARNING A FOREIGN LANGUAGE

Today's education poses new challenges to teachers and students. Remote education requires constant updating of teaching methods and tools used to increase students' motivation to study. Therefore, artificial intelligence is gradually becoming an important tool for learning and teaching.

Aim. To reveal the advantages of using artificial intelligence when teaching a foreign language.

The **results.** Artificial intelligence helps the teacher optimize the process of preparing for classes and leave more time for the creative process and work with students. For example, create tables on the subject being studied; templates of grammar tables for students to fill in, etc.; will generate a presentation on the topic; will select thematic videos or audio for listening, etc.

Using Chat GPT helps you find examples to explain grammar tense based on the topic being studied. It will also come in handy if you need to translate texts quickly.

One of the advantages of using artificial intelligence is the possibility of creating a differentiated approach to students. It will generate tasks according to the level of language proficiency in listening, reading, writing and speaking.

While writing the essay, artificial intelligence will generate a separate topic for each student. For example:

1. The benefits of participating in team sports.
2. The role of sports in promoting physical and mental well-being.
3. The impact of sports on personal development and character building.
4. The evolution of sports and its impact on society.
5. The importance of sports in fostering social integration and community development.

Thus, there will be no repetition of the same information. Students will be interested in listening to the reports of their classmates and will continue to practice their listening and speaking skills.

Testing is one of the leading types of checking students' knowledge.

Creation of tests of various types takes a significant amount of time. Artificial intelligence will make it possible to create tests of different types for the whole group, in several versions or for each student separately in a short time.

Conclusions. The use of artificial intelligence helps teachers quickly and qualitatively prepare additional materials for teaching a foreign language, to implement a high-quality differentiated approach to student education.

KONYUKHOVA, Daria

Berdiansk State Pedagogical University, Ukraine

ONLINE BOARD AS AN ESSENTIAL TOOL FOR DISTANCE LEARNING OF ELEMENTARY EDUCATION STUDENTS

In today's conditions, when there is a war in Ukraine, distance learning based on modern educational and information communication technologies has become the norm. Therefore, modern teachers should make maximum use of various digital tools to ensure a high level of education quality. Among these tools are interactive online boards, which are considered as electronic educational resources designed for collaborative content creation, real-time collaboration, and the ability to combine text, images, videos, and audio materials in one platform.

The **aim** is to explore the features of using interactive online boards in the context of distance learning for elementary education students.

There are numerous interactive online boards available. Let's consider some of them that can be used in working with younger students

Miro – a powerful tool that can be used for conducting online lessons, reinforcing learned material, and brainstorming. It makes learning more interesting, interactive, and effective.

Google Jamboard – a virtual board that allows real-time collaboration on ideas with others. For example, it can be used to create quizzes, board games, interactive maps, artworks, and more.

Padlet – an online service that allows you to create your own boards, add text, images, videos, and other materials to them. This online board can be used in any elementary school lesson for collaboration, idea exchange, and information gathering. For instance, in a Ukrainian language lesson when studying the topic "Sounds and Letters" (2nd grade), the teacher can use a Padlet board to structure the material, creating sections like "Sounds" (Vowels and Consonants) and "Letters" (Vowels and Consonants). Students can then be tasked with sorting and matching sounds and letters on the online board.

Conclusion. Therefore, online boards are valuable tools that can be used to enhance the effectiveness of education for elementary students. They enable teachers to create interactive lessons and presentations, which in turn increase the motivation of younger students to learn and improve the efficiency of the educational process.

KOPIIEVSKA, Yuliia

National Technical University "Kharkiv Polytechnic Institute", Ukraine

PROMOTING ENGLISH LANGUAGE LEARNING DURING THE WAR AS A KEY TO UKRAINE'S FULL INTEGRATION INTO THE EUROPEAN SPACE AFTER THE VICTORY

The **purpose** of this paper is to provide clear, convincing argumentation for the importance of learning English for Ukrainians during the war in the context of creating a springboard for Ukraine's successful cultural, educational, and economic integration into the European space after the victory. In light of Russia's military aggression and war, the author hopes to increase the Ukrainian people's awareness of the advantages and opportunities provided by English language mastery, as well as strengthen their motivation to acquire and advance their language skills.

Results. In an increasingly globalized society, learning English has always been crucial for Ukrainians. However, with the outbreak of war, this task has become even more urgent and topical. In the current world, the biggest events and changes are happening on a global scale, and English language command is becoming a key factor for Ukrainians at this challenging time. Why is it essential now, in a time of war? Some indisputable factors require further investigation.

Firstly, English is the de facto current dominant lingua franca of international communication. In a world where information changes rapidly and globally, the ability to speak and understand this language enables us to interact with foreign partners, journalists, humanitarian organisations, and the wider global community. In times of war, this can be crucial for gaining support, providing information about the situation in Ukraine, and ensuring effective communication with allies.

Secondly, it is a key language that provides access to valuable information in the field of research and science capital. Many academic papers and documents are written in English. English language comprehension makes us more educated and helps us to pay attention to the issues affecting our country. It allows us to study best practices and find solutions that have already been tried and tested by other countries.

Thirdly, English makes diplomatic cooperation initiatives easier to carry out. Ukraine can engage in dialogue with international partners, representatives of different countries, and organisations to meet their shared aspirations. It is important to be able to express your ideas and conduct a dialogue in a language that is understood by all parties. Moreover, for young Ukrainians, it is becoming a competitive advantage that enables participation in international academic exchange and internship. This provides them with opportunities to apply for high-quality education and develop their careers at the global level.

Conclusion. Over time, English is becoming not just a handy tool, but a need for survival for Ukrainians. It helps to communicate, study, keep up with current events, and ensure worldwide cooperation and support. Anyone who has lived through a military conflict will tell you that English has become more vital than ever as a language of empathy, solidarity, and hope for the future.

KOSTIKOVA, Ilona

<http://orcid.org/0000-0001-5894-4846>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

USING FLASHCARDS ONLINE FOR YOUNG LEARNERS IN WARTIME

The Russian-Ukrainian war in Ukraine in 2022-2023 made teachers in primary schools to online teaching. Really, it is a great challenge for schools, teachers, children. So, using flashcards online helps to teach children at schools, language courses, private lessons. It develops vocabulary, listening comprehension, speaking. The **purpose** is to show all opportunities of using flashcards online for young learners in Ukraine in wartime.

Results. There are 2 main results:

- 1) using flashcards online the same way as we used to do it in classes offline;
- 2) using special flashcard games online.

The first point. I believe, flashcards work like a magic, and a teacher is a magician with the flashcards. Let me list some simple activities and explain the tasks.

1. Flash (show the card very fast and ask children to guess)
2. Slowly, slowly (show the card very slowly and ask children to guess)
3. What's missing (show 2-3 cards, remove one card, what's missing)
4. Magic eyes (show 2-3 cards, remove 1 card, repeat what were the cards, then remove 2 cards, repeat what were the cards, etc.)
5. Memory game (show all the cards (3-4-5) for 1 minute, then remove all the card, what were the cards)
6. Lip reading (show 2-3 cards, name 1 card not aloud, only by lips, ask children to guess)
7. Flashcard riddles (show 2-3 cards, but describe only one)
8. The word out (show 2-3 cards, add 1 card from different topic, what is the word out)
9. What's in common (show several cards, ask a child to choose 2 cards and explain what they have in common. It is always funny. It develops the creativity).

The second point. Using flashcard games online. There are a lot of online resources for teaching young learners online. For example, the site *wordwall.net*. Let's offer the example for 3 topics: 'Colours', 'Family', 'Food' and games with flashcards. It is possible to choose the interface language.

<https://wordwall.net/uk/resource/1461434/colors>

<https://wordwall.net/uk/resource/14899816/family>

<https://wordwall.net/uk/resource/3432625/healthy-or-unhealthy-food>

Conclusions. To sum up, there are a lot of online flashcard activities and flashcard games to make online lessons active. And, in spite of the war, young learners are going learning. They are our future, and I strongly believe they will speak English fluently. Glory to Ukraine!

KOVALOVA, Valeriia

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

EFFECTIVENESS CRITERIA OF A MODERN COMPUTER SCIENCE LESSON IN THE CONDITIONS OF DISTANCE EDUCATION

The **aim** of this paper is to analyze the criteria of a modern computer science lesson in the conditions of distance education.

Results. In modern realities, forms of distance learning organization are gaining momentum, old methods and forms of work are already a thing of the past. Education is gradually moving to the online mode, thereby creating convenient conditions in terms of time, mobility, and accessibility for those who need it. Thanks to the use of modern software for communication (Zoom, Skype, GoogleMeets, Discord, etc.), the teachers present the new educational material, and the students, in turn, complete the tasks at home and send them to the teacher for checking. The following criteria for the effectiveness and quality of a modern lesson in the conditions of distance learning can be distinguished:

- 1) Students' assimilation of certain knowledge;
- 2) Development of abilities and skills;
- 3) Inclusion of children in educational activities;
- 4) Development of students' cognitive processes;
- 5) Individualization and differentiation of tasks;
- 6) The degree of student fatigue during educational activities;
- 7) The teacher's position in the educational process;
- 8) Characteristics of students' activity in the lesson (interest, activity, understanding of the material and its meaning);
- 9) The level of teacher preparation for the lesson and teaching methods.

When introducing distance learning, the administration of the institution should take into account not only the availability of equipment and access to the Internet for teachers and students, but also the specifics of primary, elementary and high schools. It should be remembered that the level of development of independent work of elementary school students is lower than that of elementary and high school students, so it is up to adults to organize the work of younger students. But it is about the organization of the educational process at home, and not about the fact that parents will perform tasks for the child or teach educational material instead of the teacher.

Conclusions. The most important prevention of write-offs is reasonable moderation of the load. Often, children write off due to an excessive number of tasks, especially if the exercises are theorized and monotonous. Teachers, especially during distance learning, when students have to master a significant amount of material on their own, should clearly measure and predict the time it will take for children to complete tasks, as well as agree on a schedule of test work in the teaching staff in order to maintain an even distribution of the workload during the working week.

KRAVCHUK, Svitlana

<https://orcid.org/0000-0002-3485-1343>

Ukrainian Academy of Printing, Ukraine

Shevchenkivskyi District Court of Lviv, Ukraine

MODERN TECHNOLOGIES IN TEACHING FOREIGN LANGUAGES

The **aim** of this paper is to analyze the modern technologies in teaching foreign languages.

Results. One of the most relevant areas of modern education is the study of the use of modern technologies in foreign language teaching. Modern technologies in foreign language teaching are a set of methods, tools, activities and forms of organizing the educational process that contribute to the efficiency, quality and accessibility of foreign language teaching with the help of modern information and communication technologies (ICT).

Modern technologies in foreign language teaching can be classified according to various criteria. By the type of ICT: computer-oriented, network-oriented, multimedia-oriented, mobile-oriented, etc. By the nature of interaction: synchronous, asynchronous, group, individual, etc. Form of learning: classroom, distance, blended, independent, etc. Teaching methods: communicative, project-based, problem-based, case-based, etc.

Modern technologies in foreign language teaching have a number of advantages over traditional teaching methods, including:

- 1.** The ability to implement a personality-oriented approach to learning, taking into account the individual characteristics, needs, and interests of students.
- 2.** The ability to ensure the development of students' comprehensive and harmonious foreign language competence, including lexical, grammatical, phonetic, spelling, stylistic, cultural and other components.
- 3.** Ensuring students' activity, independence and creativity in the learning process, forming their positive motivation and attitude towards a foreign language.
- 4.** Ability to provide visibility, interactivity and diversity of the educational process, the use of different types of educational materials, tools and resources that meet modern standards and requirements.
- 5.** Ability to ensure accessibility and flexibility of learning, overcoming spatial and time constraints, adaptation of the educational process to real conditions and situations.
- 6.** Ability to ensure effective communication and cooperation between participants of the educational process, use of various forms and methods of interaction, exchange of experience and information.
- 7.** Ability to ensure the objectivity and quality of control and assessment of learning outcomes, use of various criteria and assessment tools, providing feedback and correction of learning.

Conclusions. Thus, modern technologies in foreign language teaching are an important and promising area of modern and post-war education that requires an integrated approach and continuous improvement.

KRAVCHUK, Svitlana

<https://orcid.org/0000-0002-3485-1343>

Ukrainian Academy of Printing, Ukraine

Shevchenkivskyi District Court of Lviv, Ukraine

CURRENT ADVICE FOR PARTICIPANTS IN THE EDUCATIONAL PROCESS ON ACADEMIC INTEGRITY

Academic dishonesty is a violation of legal and ethical norms and rules that guide participants in the educational and scientific process, such as plagiarism, falsification, cheating, unauthorized authorship, etc. Academic dishonesty can have negative consequences for the person who committed it, as well as for education and science in general. Therefore, it is important to avoid academic dishonesty and to adhere to academic integrity.

In order to avoid academic misconduct, the following recommendations should be followed.

- 1.** Refer to the sources of information used to write a paper or research. Use quotations, paraphrases, or paragraphs from sources with the author, title of the work, publisher, year, page, etc. Adhere to the requirements of the citation style defined by a national or international standard, institution, or teacher.
- 2.** Use your own ideas and words, do not copy even partially other people's works or research. Express your opinion, argumentation, criticism or evaluation using your own style of speech.
- 3.** Provide true data and facts without changing or inventing them. Check the veracity and relevance of information sources without using questionable or outdated materials.
- 4.** Avoid collaboration or joint work with other students or researchers, unless it is provided for by the assignment or rules. Do not give your work or research to others for copying or rewriting. Not to copy intellectual creative material from other persons during the control of knowledge.
- 5.** Recognize your contribution to the work or research and fairly distribute authorship with other co-authors. Comply with the requirements established by law regarding co-authorship. Not to claim authorship of other people's intellectual creative achievements, statements, data or facts. Do not agree to be a co-author of a work or study to which you have not made any contribution.
- 6.** Avoid technological misuse. Technological misuse is defined as actions that violate academic integrity with the help of modern technologies (using the Internet to cheat, artificial intelligence to answer questions, using ready-made works from the Internet or ordering them from third parties). Do not allow others to use your account, password or email.
- 7.** Do not use prohibited sources of information while completing assignments.

So, create your own work using your knowledge and experience. If you need help, contact your teacher. Be honest and fair in your educational and research activities. Admit your mistakes and shortcomings. Respect the rights and achievements of other participants in the educational process. Fulfill your responsibilities and the requirements of the educational program. This will improve the quality of your education and research, as well as have a positive impact on your reputation and career.

KRISHTAL Anna

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

STUDY OF DISTANCE EDUCATION IN SECONDARY SCHOOL IN WAR AND POST-WAR CONDITIONS

Over the past few years, distance learning has become increasingly popular. The spring of 2020 was remembered for the rapid forced introduction of distance learning in schools of Ukraine, associated with the spread of the Covid-19 virus pandemic, and the impossibility of attending schools. Currently, there is a war in the country and distance learning has also been introduced.

The **purpose** of this paper: to consider the essence of distance learning technologies, the main concepts, the attitude of parents and children to distance learning.

Results. Having considered the different definitions of what "distance learning" is, we can say that it is a set of technologies that ensure the delivery of the main volume of the studied material to students, interactive interaction of students and teachers in the learning process, providing students with the opportunity to work independently on mastering the studied material, and also in the learning process.

To find out the attitude of students and parents to distance education, a questionnaire was conducted among students of grades 5-9 of Kharkiv Lyceum No. 141 of the Kharkiv City Council on Google Forms.

57 people took part in the survey for parents. According to the results of the survey, we learned that the majority, namely 43.9% of parents, have a negative attitude to the fact that their children study with the help of distance technologies, 12.3% have a positive attitude. According to parents, the biggest problem during distance learning is the lack of live communication and discussion of difficult topics with the teacher – 73.3%. 57.9% believe that it is difficult to take lessons remotely. 50.9% have technical interruptions during distance learning. 38.6% of parents do not have the opportunity to help their child complete tasks in this mode. 28.1% are sure that children do not have sufficiently developed skills for independent educational activities. 14% have restrictions on working time at the computer for medical reasons.

42 high school students completed the survey. According to the results of the survey, we learned that among the listed conditions, which are the most difficult, students chose the following: 45.2% – many tasks for independent study, 35.7% – lack of live communication with the teacher, 19% – lack of usual communication with classmates during classes. Students assessed their emotional state during distance learning as follows: 38.1% of students feel anxiety and worry due to difficult material for independent study, 23.8% – constant difficulties in connecting to the Internet, 14.3% – insufficient motivation to study .

So, we can **conclude** that the demand for distance learning will grow in the near future. Every year, more and more interactive methods of communication appear and, therefore, the progress of this method will be observed, which will allow to minimize its shortcomings and develop its positive aspects.

KULIKOVA, Iryna

<https://orcid.org/0009-0003-5580-7530>

Vasyl' Stus Donetsk National University, Ukraine

FUNCTIONAL-PRAGMATIC MANIFESTATIONS OF THE DISCOURSE OF ATTENTION IN THE BRITISH, AMERICAN AND UKRAINIAN LINGUOCULTURAL SETTING

Purpose. This study explores the functional-pragmatic manifestations of the discourse of attention within the linguocultural environments of British, the USA, and Ukraine. The primary aim is to unravel the subtle nuances in how attention is conceptualized and linguistically expressed across these distinct cultural contexts. By examining linguistic patterns, cognitive frameworks, and sociocultural influences, the research seeks to provide a comprehensive understanding of the intricate interplay between language, culture, and cognitive processes in shaping the discourse of attention.

Result. The study of communicative genres and the discourse of interpersonal communication in English and Ukrainian contexts, in particular, constitutes a focal point within the scholarly pursuits of researchers such as L.Y. Hnatiuk, I.S. Shevchenko, I.R. Koroliov, L.M. Matusievych, and others. These scholars have made a substantial contribution to the advancement of discourse as a communicative structure and a linguacultural formation. The investigation reveals intriguing divergences and convergences in the discourse of attention across the British, the United States, and Ukrainian linguocultural environments. In the British context, attention is often linguistically manifested through nuanced politeness markers and indirect linguistic strategies. For instance, the use of mitigating expressions such as "if you don't mind" or "excuse me" reflects a cultural inclination toward politeness in seeking attention. Contrastingly, the American discourse of attention is characterized by directness and efficiency. Americans tend to employ explicit linguistic cues, as seen in phrases like "hey" or "listen," reflecting a cultural preference for straightforward communication. This aligns with the broader cultural value placed on time efficiency and clarity in the American communication styles. In the Ukrainian linguocultural environment, attention is frequently embedded in rich contextual cues and relational nuances. Politeness is often conveyed through contextual awareness and the use of familial or social references. For example, addressing someone with a familial term like "aunt" or "uncle" even in non-relational contexts signifies a cultural emphasis on interpersonal connections.

Conclusion. This study underscores the intricate interweaving of functional-pragmatic manifestations in the discourse of attention across diverse linguocultural environments. The variations observed reflect the profound influence of cultural values, social norms, and cognitive processes on linguistic expression. Understanding these distinctions is crucial for effective cross-cultural communication, as it enables individuals to navigate the subtle intricacies of attention-seeking in diverse linguistic contexts. As globalization continues to foster increased interaction among cultures, this research highlights the necessity of cultivating cultural sensitivity in communication. Failure to recognize and adapt to these linguistic nuances may lead to misunderstandings and misinterpretations. By appreciating the cultural specificity of attention discourse, individuals can enhance their communicative competence and foster more meaningful cross-cultural interactions.

KURULIUK, Yelyzaveta

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

WAR AND STUDY: DIFFICULTIES AND WAYS TO OVERCOME THEM

War is always unpredictable, no one knows when it will start, and rarely does anyone know what to do then. It is what happened in Ukraine when the fighting started, parents did not know how their children would be educated during the war. Subsequently, almost all schools switched to distance learning, and it became a real stress for both parents and students, as well as for teachers, who found it difficult to get used to the new realities.

The **purpose** of this article is to familiarize ourselves with the possible difficulties that arise in the process of teaching during the war; after analyzing the experience of Ukrainian teachers, we will offer general options for overcoming these difficulties. There has never been a time in history when war did not create obstacles for children in obtaining education. Our time is no exception, so below are examples of the most common difficulties during the war.

- Stress that children get from shots, explosions and uncertainty about the future. It is difficult for children to study when they are constantly thinking about what will happen tomorrow and whether their father will return alive to defend the country.
- Lack of educational materials, school supplies, and learning environment. Students who are suddenly forced to study remotely from home or abroad often do not have the necessary workspace or even electricity, mobile phone service, or the Internet.
- Difficulties in mastering the subject matter in class. Children are forced to study many topics at home, without the help and explanations of teachers, and studies show that this often does not bring the desired result.
- Lack of self-discipline. It is difficult for children to keep up with regular lessons at school, and it can be doubly difficult to force themselves to sit down at home to do their homework. It is difficult for parents to make their child sit at the auxiliary equipment or do physical education because, in the child's opinion, if no teacher is watching, they will not succeed.

Learning during the war without proper supervision does not bring positive emotions and good results. What are the ways to overcome these difficulties?

Results: Many schools follow two rules that help students learn without gaps in knowledge and without stress.

- 1) Teachers teach the topic of the lesson as accessible as possible, but at the same time comprehensive, so that children do not have a lot of material that they have to study at home on their own. To do this, teachers need skill and an interesting way of presenting school material.
- 2) School administrators also do not require children to submit assignments in a short time, realizing that children cannot always connect or find quality Internet. And this reduces the number of stressful situations, which are already abundant in the war.

Conclusion: To summarize, despite all the challenges, the war cannot cancel or postpone the educational process. Therefore, the most effective teaching tools will provide opportunities for the development of natural abilities and learning of students.

KUZMENKO, Alyona

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

SEMANTIC POTENTIAL OF EXPRESSIVE VOCABULARY IN THE ONLINE EDITION "GORDON"

Expressive vocabulary is a source of enrichment not only for everyday speech, but also for the media. With the help of expressive vocabulary, the speaker demonstrates his or her own attitude to the reality depicted, to the events and people described. The expressive vocabulary of the mass media has a powerful impact on the addressee of the speech, because it motivates him/her to reflect on the verbal content he/she perceives, encourages him/her to make his/her own assessment of the described, taking into account the existing attitude described in the publication. Modern publications are full of various expressive lexical means. Today, all possible taboos on the use of various types of expressions, including those with obscene and vulgar connotations, have been virtually lifted. The authors of publications in many media, especially electronic ones, quickly introduce various expressive means into general circulation. One of such publications is the electronic Internet edition "Gordon".

The **purpose** of the study is to determine the semantic features of expressive vocabulary in the Gordon edition. Expressive vocabulary is understood as words that have an evaluation component in their meaning, express feelings, positive or negative perception of reality. Expressive vocabulary can denote certain emotions, concepts, the meaning of which has an emotional and evaluative component that can be positively or negatively connoted. Expressive vocabulary is used for intensive expression of feelings, emotions, positive or negative assessments, and can evoke ideas and associations. Modern terminological sources provide the following explanation of expressiveness. For example, the encyclopedia "Ukrainian Language" defines expressiveness as "the property of a linguistic unit to enhance the logical and emotional content of what is said, to act as a means of intensifying the expressiveness of a linguistic sign, a means of subjective expression of speech. As a semantic and stylistic category, expressiveness is related to emotionality, logical evaluation, and stylistic meaning, but is not identified with these concepts". Expressive vocabulary is considered at the semantic (within the shades of the meaning of the lexemes, their connotations), grammatical (in the use and creation of expressionism), syntactic (epithets, similes, metaphors, rhetorical questions, emotionally expressive syntactic constructions, periphrases) levels of the language.

Results: On the pages of the electronic publication Gordon, we record the use of expressions to reflect a negative and even ironic attitude to reality (dondon, Chechenisation, lair of the "liberators"), to give statements a vulgarised tone (want, could, obscurantism, lie down under someone), to level or significantly diminish the meaning of what is being said (zero, kaput), to express disdain for certain events or people (Potapuylo, gopnik Putin, cattle, devils, scum), to emphasise what is being said (a cemetery of childhood grievances and experiences, a piece of sunshine in the soul), to emphasise the vernacular of statements, to jargonise speech (to slip through, to sit out, to distort, to donate).

Conclusion: Thus, the semantic potential of the expressive vocabulary of the Gordon publication is to reflect a negative, ironic attitude to reality, to give a negative, vulgarized tone, to give statements a negative connotation, to level and significantly diminish the content of what is being said, to emphasize the dutifulness of what is being depicted, to express a dismissive attitude towards certain events or people.

KUZMENKO, Svitlana<https://orcid.org/0000-0002-8975-0718>*T. H. Shevchenko National University "Chernihiv Colehium", Ukraine***FEATURES OF TEXT FORMATION IN UKRAINIAN LANGUAGE
LESSONS IN HIGH SCHOOL**

Priority areas of modernization of education aimed at various transformations of school educational activities are in-depth assimilation of language norms, development of speech skills and improving the culture of Ukrainian speech (Senko, 2014, p. 74). In general, language is one of the most important characteristics and factors of an educated and nationally conscious person. Therefore, one of the most urgent tasks of the modern methodology of teaching the Ukrainian language in high school is the formation of text-forming skills of students/female students. The question of formation of skills and abilities of text formation is the subject of interest of many researchers, in particular O. Andriets, V. Bader, N. Grona, L. Palamar, etc. the research of D. Barannik, F. Batsevich, N. Valgina, I. Kochan, L. Rudenko highlights the problems of text and text formation. The linguistic basis for the formation of text-forming skills of students is a number of concepts, of which «text» and «text-forming» are key (Bozhko, 2017b, p. 7). By definition, a text is a complex speech formation of any volume, containing two or more sentences ordered according to grammatical, compositional, semantic norms and rules, or the result of oral or written speech, characterized by purposefulness, structural and semantic organization and informative content (Bozhko, 2017b, p. 7). Also, special attention should be paid to the concept of «text formation», which is interpreted as a process, a set of consecutive transitions from one text unit to another using means of interphase communication that ensure thematic unity, structural, semantic and communicative integrity of the utterance (Bozhko, 2017b). A. Hamza identified 4 groups of text-forming skills that correlate with the main stages of text creation (orientation, planning, implementation and control): Information and content skills; Structural and compositional skills; Grammatical and stylistic skills; Behavioural and reflexive skills (Hamza, 2019, p. 33). The formation of stable text-forming skills is possible due to the use of special exercises based on texts (Bozhko, 2017a, p. 199). According to N. Yanovitskaya, «it is through exercises that it becomes possible to manage students' learning activities, increase their activity and interest» (Yanovytska, 2009, p. 30). So, one of the most urgent tasks of the modern methodology of teaching the Ukrainian language in high school is the formation of text-forming skills in students.

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KUZMENKO, Svitlana

<https://orcid.org/0000-0002-8975-0718>

T. H. Shevchenko National University “Chernihiv Colehium”, Ukraine,

ACTIVITY – BASED APPROACH IN EDUCATION

Modern society needs people who have creative thinking, are able to apply the acquired knowledge in complex and often non-standard situations, quickly solve problems, create new things and work in a team. Of course, for the formation of such a personality, it is necessary to use innovative teaching techniques and methods, special tasks and exercises that would help to realize all these needs in the educational process (Hryhorieva, n.d. p. 3). Therefore, one of the ways to solve the tasks set is an activity-based approach, because it is in action that children learn to apply the acquired knowledge in Practice (Hryhorieva, n.d. p. 3).

An activity – based approach to learning is not a set of individual educational technologies or methodological techniques. This is the methodological basis on which various training systems are created with their own specific technologies, techniques and theoretical features. The focus of this approach is the mechanisms that ensure the process of formation and development of socio – cultural skills and their further implementation in communication processes, the application of acquired knowledge in practical situations and the search for ways to integrate into the socio-cultural and natural environment (Zhukova, n.d.).

General provisions on the significance of the activity-based approach to learning in the modern educational process are considered in the works of researchers: P. Atamanchuk, L. Blagodarenko, S. Velichko, V. Zabolotny. The works of modern scientists, in particular: N. Bibik, V. Kremen, O. Savchenko, are devoted to the implementation of the activity-based approach in teaching (Pankratova, 2021).

There are 5 characteristics of the activity approach: 1. the joyful characteristic is aimed at development and learning, which occurs when the child experiences joy and pleasure from the process; 2. social characteristics relate to activities that occur in the interaction of children with each other or with the teacher; 3. active characterization is an activity that provides an opportunity for each child to be both physically and mentally involved in the process; the child should be an active participant in the process, and not a passive observer or listener; 4. motivational characteristic-the activity provides an opportunity to look for different options, start again with new ideas and assumptions; 5. a significant characteristic is that the activity should be related to the child's experience, life, and Environment (Zhukova, n.d.).

So, the features of the activity approach as a means of self-development and creativity of educational applicants were considered, and the characteristics of this approach in teaching were determined.

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KYRYCHENKO, Valentyna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

CHARACTERISTICS OF METHODOLOGICAL APPROACHES IN TEACHING THE TOPIC “SOAP” IN GRADE 10

The **aim** of the presented paper is to analyze the characteristics of methodological approaches in teaching the topic “soap” in the 10th grade.

Results. The topic of “Soap” in grade 10 can be taught using various methodological approaches that help students better grasp the subject matter and understand its significance. The main methodological approaches are as follows:

- 1.** Historical-cultural approach. This approach allows us to explore the history of soap making and its significance for the cultures and economies of different eras. It helps students better understand how beauty and hygiene standards have changed throughout different periods of history.

The historical-cultural approach can be implemented through the following methods:

- Historical analysis: This method examines the development of soap making throughout different epochs.
- Cultural analysis: This method allows the study of soap within the context of cultural practices and values of different nations and cultures.
- Ethnographic approach: You can learn about soap in the daily life and culture of different ethnic groups.
- Sociocultural approach: This approach allows the study of soap as a sociocultural phenomenon, a social practice, and human behavior.
- Comparative approach: You can compare the use of soap in different cultures, nationalities, and historical periods.

- 2.** Applied approach. In this approach, practical tasks are used to help students better understand the components of soap and their interactions. You can also use research to develop your own soap using natural ingredients.

The applied approach to studying the topic of "Soap" in grade 10 allows students to apply their acquired knowledge to solve practical tasks. The following methods can be used:

- Experimental approach: Students can study the properties of soap, its effects on different materials, and the properties of different detergent compositions. Laboratory work and experiments can be conducted for this purpose.
- Project-based approach: Students can create projects related to soap.
- Practical approach: Students can learn hygiene rules and the use of soap in different situations.
- Problem-based learning approach: Students can investigate issues related to soap use, such as soap waste and the effectiveness of their use in environmentally friendly conditions.

The applied approach enables students to apply their knowledge about soap in real life and explore various practical aspects of soap use in everyday life.

3. Communicative approach. The communicative approach in teaching the topic of "Soap" in grade 10 involves actively engaging students in communication and interaction during the learning process.

This approach involves the use of the following methods and techniques:

- Dialogue method: Teachers should create an atmosphere in the classroom where students can openly discuss issues related to soap and express their thoughts and ideas.
- Group work: Students can work in groups, discuss various aspects of soap use, find solutions together, and solve problematic situations.
- Role play: Students can take on various roles related to soap use.
- Presentation: Students can create presentations about soaps and talk about their composition, properties, effectiveness, and impact on the environment.
- Debates: Students can engage in discussions on the use of soap in different situations, debate the effectiveness of different detergents, as well as discuss the environmental aspects of soap production and use.

The communicative approach allows students to develop their communication skills, including listening and expressing their thoughts, and promotes cooperation and interaction in the classroom.

4. Interdisciplinary approach. The study of the topic "Soap" can be combined with other subjects such as biology, history, and geography.

Conclusions. The interdisciplinary approach to teaching the topic of "Soap" in grade 10 involves the interaction of different disciplines for a more comprehensive understanding of the subject. Applying an interdisciplinary approach allows students to understand how different aspects of soap interact with each other and how they are related to other fields of knowledge. Each of these methodological approaches has its advantages and disadvantages, so teachers should combine them to achieve the best results.

LALO, Rezarta

<https://orcid.org/0000-0002-0658-759X>

University of Vlora "Ismail Qemali", Albania.

NURSING STUDENTS' PERCEPTIONS OF LEADERSHIP DIMENSIONS AND THE NEED FOR NURSING LEADERSHIP EDUCATION IN THE UNIVERSITY CURRICULUM: A QUALITATIVE CONTENT ANALYSIS FROM THE UNIVERSITY OF VLORA, ALBANIA.

Since nursing is a valuable and essential professional in society, the mission of university nursing programs is to produce professional nurses who meet international standards. Leadership in every dimension is essential in nursing development, but a few studies investigated leadership as an indicator of nursing baccalaureate education.

Considering these issues, the **aim** of present study is to evaluate the perceptions and knowledge of nursing students regarding the concept, skills and competencies of nursing leadership in order to identify the needs for improving the nursing education curriculum in Albania.

Methodology: This is a descriptive, cross-sectional study using the focus method to gather the data during February 2023 in Faculty of Health, University of Vlora. The focus group included 20 nursing students, of which 15 were master of science students and 5 students of the third year of the bachelor's program. Group discussions were also recorded using Zoom recording and then it was transcribed, coded and analyzed on a computer.

Results: 75% of students didn't have sufficient knowledge about the concept of leadership in nursing. They stated that the leadership in nursing is the nurse's ability to solve problems and to cooperate with colleagues to maintain the patient's health. 85% of the students confirmed that nurse leadership improves patient care. 60% of them stated that knowledge on leadership should be integrated in a special subject of nursing curriculum. Most of the students, about 80%, stated that the current educational curriculum provided little knowledges on leadership development that was insufficient to prepare them as future leaders in nursing practice.

Conclusions: Based on the findings, the effective nursing leadership is a crucial tool in shaping nursing practices and health policies. To become effective leaders in their profession, nurses should learn leadership skills and behaviors during their baccalaureate education. The integration of leadership development in nursing curriculum and extracurricular training should be a priority in the framework of continuing education for future nurse leaders in Albania.

LEONTIEVA, Mariia

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

SCIENTIFIC WORK AND WAR IN UKRAINE

Aims: highlighting the problems of scientific work in Ukraine.

Relevance: restructuring of Ukrainian academia.

Results: The ongoing conflict in Ukraine has had a profound impact on all aspects of life in the country, including scientific research. Despite the challenging circumstances, many Ukrainian scientists have continued their work, often under difficult conditions, to contribute to the advancement of knowledge in their fields. The use of heavy weaponry and explosives has resulted in significant damage to the natural landscape, including contamination of soil and water sources. During the war, a large number of explosive objects have also accumulated in Ukrainian forests, making impossible to visit these areas. For most biologists, forests are one of the most important sources of samples for research.

Before the war, I studied Coprinoid fungi in Kharkiv Forest-Steppe, and unfortunately, in current conditions it is impossible to continue such research. In addition, the destruction of infrastructure, including research facilities and equipment, has made it more difficult for most of scientists to carry out their work. Another major challenge has been the loss of funding. The war has put a significant strain on the country's economy, and many scientific projects have been deprioritized or canceled. Despite these challenges, there have been many examples of scientific progress and innovation in Ukraine during the war. For example, Ukrainian scientists have been at the forefront of research into the health effects of the conflict, documenting the impact of the conflict on the mental and physical health of civilians and soldiers alike. Other researchers have focused on developing new technologies to assist in the relief effort, such as drones for search and rescue operations or sensors to detect unexploded ordnance.

Ukrainian scientists have developed humanitarian technologies aimed at improving the lives of those affected by the conflict. For instance, advancements in prosthetics have enabled the development of more accessible and affordable options for individuals who have suffered amputations due to the war. Now Ukraine needs help in financing the development of science and education that are so necessary for rebuilding society and restoring normalcy to affected communities. With the help of European countries, we can build new schools, universities and laboratories; we can improve the quality of educational facilities and materials, develop new resources to support learning.

Conclusions: The war in Ukraine has undoubtedly presented significant challenges to scientific research and development. Despite all the difficulties, Ukrainian scientists have displayed unwavering determination, resilience, and innovation in the face of adversity. With the help of European countries, we can restore the infrastructure and even improve education and scientific work in Ukraine in general.

LEVKIN, Dmytro

<https://orcid.org/0000-0002-1980-4426>

State Biotechnological University, Ukraine

MODERN APPROACH TO TEACHING HIGHER MATHEMATICS BY DISTANCE EDUCATION LEARNING FOR STUDENTS IN HIGHER EDUCATION INSTITUTIONS OF UKRAINE

Today, all higher education institutions (HEI) in Ukraine were forced to switch to the distance form of student education. The educational process is organized through the use of interactive information platforms. In this work, we will consider the organization of training classes in higher mathematics for students studying technical specialties in higher education institutions by distance learning.

The **purpose** of the work is to propose approaches to increase the success rate of assimilation of educational material in higher mathematics for students studying technical specialties in higher education institutions by distance learning.

The **results**. Based on the peculiarities of higher mathematics, at the beginning of the training session, the author considers it necessary to send the material of its theoretical and practical part to students by e-mail, thereby ensuring the principle of visibility.

This will allow the teacher to only explain the educational material in class, paying attention to more essential and problematic aspects. The application of the theoretical part of the educational material should be fully illustrated on the examples and tasks solved by it in the practical part of the educational material.

These examples and tasks should be placed immediately after the theoretical part of the educational material, their number should be appropriate and they should relate to the previously provided theoretical part. In order to consolidate the acquired knowledge for students and evaluate the success of learning the learning material, questions for self-control and tasks for independent completion are provided.

Questions for self-monitoring can relate only to the theoretical foundations of the educational material provided to students, and the tasks are similar to those performed in the practical part of the educational material. The author believes that alongside more traditional theoretical questions and tasks, it is advisable to place test questions. In order to reduce the probability of random answers to test questions and to provide an objective assessment of students' mastery of the learning material, tasks for independent performance should contain different types of tasks, and not be limited to test tasks only.

In addition, at the end of the educational topics of the academic module on higher mathematics, it is advisable to place variants of individual tasks, which will also combine theoretical questions, tasks for practical implementation, and test questions.

At the same time, in order to ensure the principle of visibility when studying the educational material, it is desirable that the teacher solves one option from individual tasks. Thus, students will be provided with an example for the implementation of their version of individual tasks.

The use of several variants of individual tasks will reduce the risk of writing off and obtaining the same answers from students. When organizing the educational process, it is advisable for the teacher to single out several training sessions for the analysis of students' answers to questions for self-control and solved tasks in order to explain problematic aspects in the educational material.

Conclusions. It should be noted that the success of learning the educational material for students who are forced to study remotely depends to a large extent on the effectiveness of the organization and ensuring their independent work. The educational discipline must have a developed and fully equipped educational and methodological complex, and teachers must possess and widely apply didactic methods in the education of students.

LOHACHOV, Dmytro

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

APPLICATION OF COMPUTER GAMES IN EDUCATION

The **aim** of this paper is to analyze the application of computer games in education.

Results. The issue of computer games affecting the minds of the younger generation has been relevant since electronic devices with interactive entertainment programs began commonly appearing in people's homes. The unprecedented novelty of video games has spread around the world and captured the attention of children of all ages.

Due to the phenomenal growth in popularity of video games as a form of leisure and a new form of media, society has begun to grow concerned about the extensive impact of video games on actively developing children's minds. For decades, humanity has received different answers to this question. Many of them were not backed by research, but were instead based on the impulsive association of negative trends in children's behavior with a growing trend: the tendency of children spending their leisure time in virtual worlds. Video games were associated with increased aggression and violence, attention and concentration disorders, memory impairment, and many other factors that directly conflicted with the child's ability to learn, so video games were often highlighted as an interference with child's natural education and development processes.

But recently, detailed studies have revealed a completely different picture. Besides the fact that a direct correlation between video games and disorders in children has never been conclusively established, more and more modern tests reveal increased brain activity and cognitive performance in children who play computer games frequently, compared to those who do not or play rarely. Among the abilities stimulated by games of various genres are: cognitive flexibility, reflex speed and reaction time, logical and spatial thinking, decision-making, multitasking, problem solving, speed of perception, creativity and imagination.

Despite the fact that traditional video games have long been perceived as a hindrance to the educational process, educational video games and simulators have been introduced in American schools since the early 80's. Interactive applications drew the attention of students, made the material more interesting and easier to understand, as well as automated knowledge control and simplified record keeping for teachers. With the development of the video game industry, educational applications managed to move from primitive simulators that could test the student's knowledge to systems that could assess abilities that were traditionally not quantifiable, such as creativity or spatial thinking. At the same time, the graphical component of games was also changing, creating more engaging virtual environments and more complex visual materials.

Despite the diversity of genres and topics of educational games, they all have an additional goal, which is to relieve the learner's psychological stress, to create an environment that makes knowledge acquisition a process rather than the end result, mixes material delivery and knowledge control in different proportions,

and provides feedback, transforming the learner from an observer into a participant in the process. Through the game, a student can interact with the environment that is not available for hands-on study in real life. The virtual environment is more forgiving of mistakes and gives a second chance and space for practice where in real life every mistake can be critical. This is particularly true for a type of game that is becoming increasingly more realistic with the development of technology and processing capabilities of computers: simulators. Simulators are used in many areas outside of schools, but their relative accessibility allows students to try simulating future professional activities at an early stage of their education, which can have an additional career guidance function.

In addition to providing theoretical knowledge and practical skills, a computer game acts as a universal way of gaining experience and developing soft skills and abilities necessary for solving problems in everyday and professional activities. Due to their unlimited scalability, computer games can provide a rich opportunity to acquire understanding of complex processes, being able to quickly and smoothly transit from simple to complex and from general to specific.

Games psychologically prepare a person for intense emotional situations, which allows them to demonstrate ability to act in crisis situations and exercise mental self-regulation in times of confusion.

Conclusions. Teachers who have direct experience of observing children who are fond of computer games talk about the positive aspects of games as an educational tool and as a source of excitement. In their opinion, games allow kids and teenagers to achieve high levels of cognitive activity, curiosity, satisfaction with the result of their actions, as well as determination and concentration, which allow to maintain and keep attention on the game and education process.

LOZOVA, Natalia

<https://orcid.org/0000-0002-1961-5473>

Communal Institution "Prylutsk Humanitarian and Pedagogical College named after Ivan Franko" of the Chernihiv Regional Council, Ukraine

FORMATION OF LANGUAGE COMPETENCE OF THE UKRAINIAN-SPEAKING STUDENT

In the conditions of active military actions on the territory of Ukraine, the language issue began to be actively discussed in society. Before the beginning of the full-scale invasion, a large part of Ukrainians considered it the norm to use the Russian language, listen to Russian-language music, watch movies, but today the majority of conscious citizens have begun to abandon such a tendency.

In this context, a logical question arose: should the concepts of "language" and "patriotism" be combined? In order to prove that there is an inextricable connection between these categories, we consider it necessary and appropriate to explain the meaning of the term patriotism. From the point of view of the modern Ukrainian language, it is interpreted as love for the Motherland and one's people.

Based on the idea that language is an important component of statehood, we came to the conclusion that combining the concepts of "language" and "patriotism" into a single category of "language patriotism" should not cause doubts. Linguistic patriotism means love for the national language, a deep conviction that the state language should be the only one and it should be used in all spheres of public, cultural and everyday use. It is the development of language patriotism of a modern student of education, in our opinion, that will best affect the formation of the language personality of Ukrainian students.

The formation of speech competence, in addition to language self-identification, also requires effective teaching methods. Such, according to our belief, is cognitive. By the cognitive teaching method, we mean the one that is subject to the system of communicative, professional-cognitive and cognitive tasks, involves learning the language in action, in real functioning and is based on the principles of communicative orientation of students in the learning process.

The most relevant and effective in the process of mastering speaking competence are the following conceptual principles: structuring of educational material; interdisciplinary approach in the process of forming educational material; individual approach to each student in the learning process; formation of students' scientific outlook; personal principle (self-development of the student's personality as a subject of knowledge of the surrounding world); ethnocultural approach (learning the Ukrainian language in the context of learning about Ukrainian culture); emotionality of learning (presupposes a visual presentation of the material; use of associative experiments, use of interesting examples); creativity (consists in creative and cognitive work of students); cognitive orientation (consists in creating positive motivation in the assimilation of linguistic knowledge).

Thus, the cognitive method of teaching the Ukrainian language is based on the study of linguistic phenomena through thinking and action, which are the basis of understanding and using these phenomena in speech. The main means of learning the Ukrainian language according to the principles of the cognitive method is the text.

LUKIANETS, Maryna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

USE OF DIGITAL TECHNOLOGIES FOR ASSESSMENT IN MATHEMATICS LESSONS IN 5TH GRADE

The **aim** of this paper is to analyse the use of digital technologies for assessing mathematics lessons in the 5th grade.

Results. Nowadays, information and digital technologies are integrated in most spheres of human activity, and education is no exception. The usage of digital technologies in education allows to improve the educational process, increases the quality of education, promotes the motivation of pupils who would like to use digital tools. Informational resources and digital technologies help the teacher to conduct lessons during the process of remote learning. They allow to automate the process of homework checking and reduce the time of lessons preparing.

Since the introduction of the “New Ukrainian School” reform, approaches to the educational process and assessment of pupils' achievements have changed. According to the recommendations of the Ministry of Education and Science of Ukraine (Ministry of Education and Science of Ukraine, 2021), assessments are divided into current and final. Current formative assessment should be carried out systematically in the learning process and is carried out in order to make pupils aware of ways to achieve better results. Formative assessment helps the teacher to familiarize 5th grade students with the principles of point assessment, monitor the current level of student progress and make adjustments to their own pedagogical activity. For students, it is a way to see their own achievements or problems and receive feedback from the teacher on improving their skills and abilities.

The pedagogical experience of European countries shows that one of the most common means of formative assessment in mathematics lessons is testing in various forms (Mykhaylenko, 2022). External independent assessment is conducted in this format, so the use of test tasks is appropriate. Modern digital technologies and tools can be used to implement formative assessment.

Today we will get acquainted with digital tools for formative assessment in mathematics lessons in fifth grades.

Currently, many Internet platforms have been created for conducting online tests (Chibisov, & Vasylenko, 2021). Their general processes are pretty similar, but each of them has its own differences and advantages. The leading platform in European countries is Kahoot — a well-known platform for conducting tests in game form, with the possibility of participation of the entire class (maximum number of participants is fifty). Children can join teams, compete with each other. Colourful interface and images will make this experience more enjoyable for them.

Other services for conducting online training are: My test, Test Pad, and Classtime, Vseosvita. With the help of the service, you can create various types of test tasks, adjust the time of passing the test and receive the assessment. The Classtime, Vseosvita platforms provide an opportunity to conduct testing using a phone and monitor test completion in real time.

We would like to mention the online platform novatika.org. The platform is developed according to the standards of the New Ukrainian School and contains online simulators for individual work of pupils, built-in games with e-learning, tests and interactive workbook. For teachers and parents, there is an opportunity to control the progress of pupils. A bright interface will help children to enjoy the learning.

Conclusions. Available digital technologies provide tools for implementing formative assessment in distance learning languages. A wide selection of online services allows the teacher to build his own teaching methodology.

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LUPARENKO, Svitlana

<https://orcid.org/0000-0002-3111-5340>

IAVORSKYI, Andrii

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

FORMATION OF STUDENTS' LEGAL CULTURE IN WAR AND POST-WAR TIME

The **aim** of this paper is to analyse the formation of students' legal culture in war and post-war time.

Results. Legal culture is an element of person's general culture that includes a system of values achieved by humanity in the sphere of law and relates to the legal reality of society. The formation of person's legal culture is a long and complicated process which is under the influence of various internal and external factors, changes in the social, economical, educational and cultural life and students' minds. So, the purpose of this article is to reveal the features of formation of students' legal culture in the conditions of war and post-war times.

Nowadays, students' nihilistic attitude to law is caused by global social changes, political situation in the country, insufficient study of regulatory documents important for students' legal education, insufficient development of legal traditions in families etc., which leads to open legal nihilism, since the denial of the significance and value of law has deep historical roots: we could observe contempt for law and court and tolerance for arbitrariness in Ukraine from generation to generation.

However, in the conditions of war, this situation can radically change. Students should both know the laws and be politically active and responsible for their life and the fate of the country.

The formation of students' knowledge, relations and value orientations in the sphere of law is influenced by person's life experience and individual activities starting from childhood. Students' legal consciousness, their assessment of legal reality, motivation for lawful behaviour are determined by social ties and the environment in which people exists, the degree of their involvement in activities in society and the level of formation of the legal culture in it. Students' legal experience both determines the legal consciousness and motivates their behaviour and life activities.

Accordingly, teachers, parents and the society should focus on the formation of students' legal consciousness as a set of legal beliefs, ideas, views and feelings, analysis of the methods of students' legal education, formation of their respect for the state, legal knowledge and skills of lawful behaviour, development of students' critical attitude towards attempts to violate their rights, increasing awareness of legal reality etc.

Conclusions. So, nowadays, in the conditions of war, it is quite important to focus on the needs, preferences and expectations of Ukrainian society to form independent and democratic state, as well as the processes of ensuring the formation of students' legal consciousness, legal culture and development of educational programs for students in the sphere of law during the war and post-war period.

MAIEVSKA, Olha
SEMENYSHYN, Olena

Kyiv Cooperative Institute of Business and Law, Ukraine

**ANALYSIS OF THE GENERAL PROVISIONS OF THE DRAFT LAW
"ON THE USE OF THE ENGLISH LANGUAGE IN UKRAINE"**

On June 28, a bill No. 9432 «On the use of the English language in Ukraine» was published on the official website of the Verkhovna Rada, which is supposed to officially establish the status of English as one of the languages of international communication in Ukraine. The initiator of this bill is President Volodymyr Zelenskyi. The **purpose** of our research is to analyze this bill, consider the positive and negative aspects of the impact on Ukrainian society and offer recommendations for improvement. According to the bill, compulsory English learning is provided in kindergartens, it is also noted that emergency medical assistance must be provided to foreigners in English, all announcements at train stations and airports must be duplicated in English. In addition, the officers of the Armed Forces of Ukraine must speak English and eight categories of civil servants who are required to know English are established, including civil servants of categories «А», «Б», «В», local government heads, their deputies, prosecutors, middle and senior police officers of the National Police of Ukraine (On the use of the English language in Ukraine: Bill No. 9432 of 06/28/2023). However, the document caused a great discussion in society: the bill de facto narrows the use of the Ukrainian language in Ukraine, and this is at the same time when the transition to the Ukrainian language is becoming massive. Paragraph No. 4 of Article 9 «Foreign movies in cinemas are shown in English with Ukrainian subtitles» is contrary to the Law of Ukraine «On ensuring the functioning of the Ukrainian language as the state language»: the total number of movie screenings in the original language that is different from the national language cannot exceed 10% of the total number – according to Paragraph 5 Part 6 of Article 23 (On ensuring the functioning of the Ukrainian language as a state language: Law of Ukraine dated April 25, 2019 No. 2704-VIII). First of all, showing movies in the original language will limit the rights of Ukrainian citizens. Pre-school children may be in this category because their level of English is insufficient to watch these movies in their original language.

The authors and supporters of the bill insist that the English language, as the language of international communication, is necessary in modern society, especially in the context of Ukraine's further integration into the European community and the prospect of NATO membership. The law should increase the level of competitiveness, investment and tourism attractiveness of the country, expand the use of the English language and create favorable conditions for its study by citizens of Ukraine. Thanks to the English language, it becomes possible to spread true information about the situation in Ukraine to the European community (Law on the English language in Ukraine: who will have to take exams and how to check your level). In our opinion, the initiative to give a special status to the English language is quite logical and necessary but its implementing should not be forced, it should be consistent. It is also important that English learning in our country does not hinder the development of the state language. The bill must be substantially revised, in particular regarding to issues related to cinematography and movie dubbing. The state must take into account the interests of all participants in this process.

MAIKO, Iryna

Pavlo Tychyna Uman State Pedagogical University, Ukraine

USE OF ONLINE TOOLS IN MIXED AND DISTANCE LESSONS OF THE ENGLISH LANGUAGE

This work is devoted to the topic: «Using online tools in the lessons of blended and distance learning of the English language».

Aim of my work is to research online tools that can be used during distance learning and blended learning, such as educational platforms Zoom, Google Classroom and many others.

Results. In Ukraine first fixed in 2020 COVID-19, so this is a situation that has made adjustments not only in our daily life, but also in educational processes. And in 2022 a full-scale invasion of Russia against Ukraine began. We cannot traditionally attend school, but this does not mean that we should not give quality education to our children, because children are our future. Therefore, we are forced to look for a way out. We must find alternative and effective training. The Ministry of Education and Science of Ukraine added to the educational process such forms of education as distance and mixed forms of education. Online lessons, but there is a problem – how to conduct it so that there is a fruitful result. In a general sense, blended learning is learning in which part of the students' cognitive activity takes place in the lesson under the direct guidance of the teacher, and the rest – in independent work with electronic resources.

Distance learning is a form of organization of the institution's education, which is based on a combination of traditional and innovative information and digital methods of teaching material, which makes it possible to obtain a full-fledged, high-quality education. During the research of my work, many positive aspects of such training were revealed, but unfortunately there are also negative aspects, such as Internet illiteracy of teachers, children and parents. Not all teachers and students are equipped with digital technologies. We cannot imagine a modern English language lesson without audio and video accompaniment. Especially the youngest students get tired quickly and start to get bored in class, so they lose interest in learning new material. And this is where interactive games like Smiley-man and Spelling Sharks come to the teacher's aid. With such games, children are interested in learning new words. Interactive presentations can also be used during distance learning

Conclusions. So, it can be concluded that for to achieve a high result in education, it is very important to ensure the interaction of teachers, students and parents. It is necessary for all participants of the educational process to improve themselves and improve their knowledge and skills on the Internet. Because there is a big problem regarding the Internet illiteracy of participants in the educational process. There is also such a problem as problems with Internet connections. But there are also positive points in distance and blended learning. Children enjoy learning while playing, thanks to interactive games and exercises. New forms of work ensure a positive mood in children.

The model of distance and mixed learning improves the organization of independent work, so information technologies become an integral part of the educational process. You can also note convenience, the possibility of studying at a convenient time. Training is possible without tying a specific geolocation point. Reduction in financial costs.

MAKAROVA, Elizabeth

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

LEARNING AND TEACHING: DURING THE WAR AND PEACE

The war fundamentally affects the quality of education. Some children started studying online, but due to the lack of electricity they lost the opportunity to study systematically, some were forced to leave the country in search of safety and faced a language barrier. There are many such problems. There are also children who have suffered a lot of negative moments in their psychological state. They continue to learn, but they have become even more vulnerable than before.

The **purpose** of the study is to present a few ideas, exercises that can be performed at any moment of the lesson with children who have suffered severe psychological injuries.

Results:

Exercise 1. "Let's take care of ourselves".

Older people always say that hands and hugs are the key to your heart. Stand in a circle, hold hands together with the children. Before that - explain to them that when one of the children feels anxiety or psychological pain - the child lets go of his hands and hugs the one who has anxiety. Next, all together ask the child - what is peace for him (toy, color) and imagine it together. This exercise brings the child to his senses, he will feel calm and protected.

Exercise 2. "Pizza"

Let the children choose a child who will be the basis - the dough. Then, give them headbands with different fillings, which they will put on their heads (prepared in advance). Next, the children form a triangle so that the base is the first, followed by the sauce and toppings. This is a great exercise for removing muscle clamps.

Exercise 3. «Secret»

Children draw their greatest fears, then give the drawings to the teacher, and the teacher, with them, puts these drawings in a safe or in a box that closes (prepared in advance). Next, all the children hold hands and say: "Enemy, enemy - you leave. I don't want to be with you."

Conclusion: The psyche of children and adolescents has huge reserves of self-recovery and self-regulation. Most children return to normal after a traumatic event without the professional help of psychologists simply thanks to the support and care of loved ones and teachers.

MANCHYNSKA, Nataliia

<https://orcid.org/0000-0002-8855-4029>

VASYLENKO, Sofiia

Kharkiv National University of Radio Electronics, Ukraine

MIGRATION OF STUDENTS AS A RESULT OF THE WAR: SHORT-TERM AND LONG-TERM CONSEQUENCES

The war in Ukraine, which has been going on for over a year, has led to mass migration of the population, including children and youth. According to UNICEF, as of the beginning of 2023, more than 1.8 million Ukrainian children have gone abroad. 10-15% of students are abroad. More than 2.5 million schoolchildren and students became internally displaced persons. This migration has a significant impact on the total number of students in Ukraine.

The migration of pupils and students caused by the war can have both short-term and long-term consequences for education in Ukraine.

Consider the short-term consequences. In the frontline regions, the number of students decreased due to the evacuation of residents and the loss of housing. This led to a reduction in the total number of students in schools and higher education institutions. For example, according to information from the Department of Education of the Kharkiv City Council, by August 2023, only 40 percent of school students who left at the beginning of the war returned to Kharkiv.

When students move away from areas with conflict, more students join schools in other parts of Ukraine. This puts extra stress on the school systems in those areas. Some students' education suffers because they can't go to Ukrainian schools when they leave the country or can't attend school due to ongoing conflicts. They may have limited access to internet or technology for remote learning. This movement of students can have lasting effects. A lower education level can hurt Ukraine's economy and increase social inequality. Kids from less wealthy families who couldn't not move to a safer region of Ukraine or abroad may have fewer chances for education. Children who left Ukraine may not come back after finishing their studies or after the war.

To help with these challenges, Ukraine is taking steps like creating the "All-Ukrainian Online School" platform for easier access to quality education, and approving a standard program for children studying abroad so they can still learn about Ukrainian subjects.

In safer regions of Ukraine, shelters are being organized in schools and higher education institutions for full-time and mixed education. With the start of the second wartime school year, the number of children attending full-time education is expected to rise to 2.3 million from 1.3 million last school year. But according to estimates by the Ministry of Education of Ukraine, approximately 1.7 million children – or 42 percent – will have limited access to full-time education. This includes about a million students who will rely solely on distance learning.

It is important that Ukraine does everything possible to ensure access to quality education for all children and youth, regardless of where they are. This is a key factor in securing the country's future.

MARGOLIN, Adrian

<https://orcid.org/0000-0003-4974-349X>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

MEMES AS TEACHING TOOLS

Education today must consider the needs and interests of learners, making the learning process interesting and exciting, long-lasting, deep and individualized. So, there is a need to adapt existing tools to the modern context or expand them to include those that have not been used so far. Such means are the so-called memes that correspond to modern trends.

By using them, the learner becomes an active and at the same time “independent” participant in the educational process, involved in long-term consumption and interaction with learning tools. This has a positive effect on the educational results and the learner’s experience. The concept of “meme” was introduced by R. Dawkins, who defined it as a fragment of information that evolves as a result of natural selection and spreads in society, like genes or like viruses (Dawkins, 2016).

Memes have a lot of potential as learning tools, they can enhance the independent work of basic secondary school students, enable language immersion, and increase the effectiveness of foreign language learning. However, memes in the educational process have not been studied yet. Therefore, the **purpose** of this article is to investigate how memes can be used for language immersion, increasing the effectiveness of foreign language learning.

Results. If we assume that the formation of personality is influenced by heredity, education, environment, and own activity, then memes can be considered as elements of his/her environment, including the digital one, that can influence judgments, preferences, social position, and more.

In the context of our research, we are interested in how memes can affect the learning of a foreign language. We assume that memes can be a driving force for the consumption of content in a foreign language, as they increase motivation, facilitate independent work with authentic media, and enable “linguistic immersion” (Kerrita, 2017, p. 4).

In pedagogy, memes can be considered both as fragments of information (words, sounds, intonation patterns, gestures, ideas) and their combination in integral means of learning (film, textbook, audiovisual course), which captivate (in different meanings) students of education, interest, entertain, educate, and motivate them.

One of the main channels for the distribution of memes is the Internet, and the main means are audiovisual and images, which quickly and easily reach a large audience. The process of selecting memes with which students of basic secondary school education can interact occurs in most cases unconsciously, speaking in the terms of R. Dawkins, it can be said that educational and entertainment tools are subject to “natural selection”: they spread and consolidate or, on the contrary, lose their relevance and disappear from the memory of the students, if they have no practical value or application, do not

evoke emotions, do not interest the students of education, including basic secondary school students.

The study revealed that memes can help basic secondary school students to immerse themselves in the language. This is achieved by creating a digital environment, consuming foreign language content for a long time, and identifying themselves with the topics and issues covered.

Conclusions. These are, in our opinion, some of the main factors in learning a foreign language and getting familiar with the culture of its speakers. Memes also make learning more individualized, interesting, and “independent”.

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MAZEPA, Iryna

Communal Institution "Ivan Franko Humanitarian-Pedagogical applied college of Pryluky", Ukraine

RETELLING IN THE PROCESS OF LEARNING A FOREIGN LANGUAGE

The **aim** of this paper is to analyze the role of retelling in the process of learning a foreign language.

Results. It's an open secret, retelling is understood as an oral or written presentation of the read or heard text content in the pedagogical literature. It is one of the types of coherent speech learning activity in order to develop students' memory, logical thinking and to enrich their vocabulary. The term "retelling" covers a variety of oral and written exercises: from an almost verbatim small text part presentation to a fluent entire literary work content presentation or even several similar theme one. However, a single methodology to classify retellings has not been found in the methodological literature. Thus, a fluent narrative is a special type of work between a prepared speech and unprepared one. The peculiarity of this type is that students do not only use the language of the text to convey the main content. The presence of changes and additions allows us to consider this type of retelling as creative one. Besides, it should be emphasised that fluent retelling as a special type of work, is of great practical importance and plays a great role in foreign language teaching. These types of retelling and all concerning activities initially develop memory. Moreover, students learn words, grammatical forms and constructions according to the expressed meaning, revise the previous material and activate it in the process of retelling. It is essential to stress your attention, in addition to semantic memory other types of memory are involved in memorising material: visual memory (when reading a text), motor memory (the speech organ movements during oral translation) and auditory memory (listening to your own and other students' translation). In fact, the systematic implementation of certain translation work types will improve students' foreign language knowledge and practical skills. It is known that pronunciation skills are also developed during translation. Students continue to practise the pronunciation of sounds, words, sentences and coherent sentences by retelling a text. When dealing with a coherent text, they should pay more attention to the intonation of their speech, since intonation largely determines the meaning and sense. The ability to outline the main points and constantly revise the previous material is very important both for language learning and students' mental ability development. Therefore, while learning a foreign language it is necessary to develop the ability to express the content of the text fluently, using not only the language text material, but also their own knowledge. If difficulties arise with such translations, they can be overcome by conducting some translation training and by showing students how to change and simplify the text with examples.

In **conclusion**, fluent retelling allows you to express your own ideas by combining words and forms creatively. The importance of this work type to learn a foreign language is of no doubt, because it is a fluent retelling of unprepared passages or texts in order to achieve perfect fluency of speech. Properly organised, systematic work on fluency will help to improve students' coherent speech skills and bring them closer to their foreign language fluency.

MELNIKOVA, Olena

Admiral Makarov National University of Shipbuilding, Ukraine

IMPACT OF ARTIFICIAL INTELLIGENCE ON SOCIETY

The **purpose** of the article is to analyze the possible consequences of the intensive use of intelligent agents, as well as to assess their further impact on various aspects of society. The everyday use of this technology requires attention to the ethical, social, philosophical and economic challenges it creates. **Results:** in today's world, in the context of continuous technological progress, the application of artificial intelligence (AI) is increasingly used. It has proven to be a versatile tool that is used in a wide range of areas, from providing simple support to users to teaching students. Due to the low cost of developing such programs, large companies are increasingly starting to use the services of artificial systems. However, this approach has its drawbacks, because replacing people with artificial intelligence, the simple world gradually begins to turn into a mechanical machine, where humanity is replaced by efficiency (Elul, 1964, p. 60-61). And due to the fact that technology, due to the peculiarities of its structure, tries to simplify difficult concepts for it, all human feelings and emotions are presented in the system only in a shortened version. Therefore, AI has no understanding of moral principles and cannot be human. As a result, a number of problems such as unemployment and social inequality arise with the constant use of such systems. Dependence on technology has recently become a particularly acute problem. By moving all data to the World Wide Web and allowing smart algorithms to process it, every company and even country puts itself at risk. Such thoughtless actions cause vulnerability to failures and cyber-attacks: simply turning off the light deprives the ability to access the Internet, the connection with the surrounding world is lost; attacks on vital infrastructure temporarily paralyze the activities of the entire state. We put ourselves at risk by bringing all aspects of life into the digital space because it automatically opens up the possibility of unauthorized access to data that can then be used as a tool to subjugate a country. An example of this is the cyberattacks by Russia, which took place on January 14, 2022, aimed at hacking the web page of the state bodies of Ukraine: at that time, about 70 important sites stopped working, 10 of which suffered unauthorized interference (Cyber Police Department, n.d). **Conclusions:** artificial intelligence combines both positive and negative effects on society. It follows that the development of such systems requires a balanced approach, where the efficiency of technology should not take the leading place in people's lives. This is possible thanks to interdisciplinary cooperation, where philosophers, sociologists, ethicists, legal scholars and other specialists will jointly develop normative frameworks and strategies for the use of artificial intelligence, ensuring its compliance with humanistic principles and norms of justice.

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MIROSHNYCHENKO, Anhelina

<https://orcid.org/0009-0003-9053-9578>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE PROBLEM OF MOTHERHOOD IN MODERN WORKS ABOUT WAR

The **aim** of this paper is to analyze the problem of motherhood in modern works about war.

Results. English literature has explored the problem of motherhood in the context of war through various perspectives and genres. While there are numerous works that touch upon this theme, a few notable examples from English writers stand out.

The novel "Regeneration" by Pat Barker (1991) is set during World War I. This novel explores the psychological impact of war on soldiers, including the experiences of Billy Prior, a character who grapples with his relationships, including that with his mother. The novel delves into the trauma of war and its effects on familial connections.

Another novel that touches on the theme of motherhood and war is "The Soldier's Wife" by Margaret Leroy (2011). This novel is set during World War II on the island of Guernsey. It follows Vivienne de la Mare, a mother and wife, as she deals with the challenges of living under German occupation. The story delves into the emotional strain of war on family life and the choices mothers have to make to protect their children.

Although not written by an English author, "The Book Thief" by Markus Zusak (2005) originally written in English and is set in Nazi Germany. The story is narrated by Death and follows Liesel Meminger, a young girl fostered by a German couple. Liesel's relationship with her foster mother, Rosa Hubermann, reflects the struggles and sacrifices of motherhood during a time of war.

While not solely focused on motherhood, "Atonement" by Ian McEwan (2001) explores the repercussions of a false accusation made by a young girl named Briony Tallis. The story examines the impact of war on family dynamics and the lasting consequences of choices. It touches on the complexities of relationships between mothers and children.

The representation of motherhood in modern works about war often explores the complexities and challenges that women face when their roles as mothers intersect with the harsh realities of conflict. This theme has been a significant aspect of literature, film, and other forms of artistic expression. Several key issues and perspectives emerge in the portrayal of motherhood in the context of war.

Mothers often bear the emotional weight of loss when their sons or daughters go off to war and may face the devastating reality of losing a child in battle. Works about war often depict the profound grief experienced by mothers who must come to terms with the death or severe injury of their children.

The absence of a parent due to military service can have profound effects on family dynamics. Mothers left behind may struggle with the dual role of being both mother and father, dealing with the emotional needs of their children while managing the practical aspects of daily life.

Mothers themselves can be directly affected by the traumas of war. If a mother is a war participant, she may struggle with the psychological toll of combat. Even if not directly involved, witnessing the trauma experienced by a spouse or child can lead to mental health challenges.

Many works highlight the strength and resilience of mothers in the face of adversity. Mothers often become the backbone of families during wartime, managing the household, providing emotional support, and embodying a source of strength for their families.

In situations where a mother becomes a single parent due to war, the challenges can be immense. Balancing the responsibilities of raising children alone with the anxiety and uncertainty of a loved one being in a war zone is a common theme.

Some works depict mothers as powerful voices against war. Mothers who have lost children may become advocates for peace, speaking out against the conflicts that took their loved ones and working towards preventing further loss.

Certain works explore the universal nature of motherhood by humanizing women on the "other side" of the conflict. This approach seeks to emphasize the shared experiences and emotions that mothers on both sides of the war may feel.

The effect of war on children is a recurring theme. Works often delve into how mothers navigate the task of explaining the complexities of war to their children, shielding them from trauma, and helping them cope with the challenges of growing up in a wartime environment.

In **conclusion**, the problem of motherhood in modern works about war reflects the multifaceted nature of women's experiences during times of conflict. These representations contribute to a broader understanding of the human costs of war and emphasize the strength, resilience, and emotional complexities of mothers in such challenging circumstances.

MISHCHENKO, Yuliia

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

FEATURES OF DEVELOPING OF ECOLOGICAL COMPETENCE OF STUDENTS ON THE EXAMPLE OF STUDYING THE PROPERTIES OF DETERGENTS

The development of environmental competence of students is an important task of modern education, as it allows to prepare young people to solve environmental problems, preserve the environment and create sustainable development.

Environmental competence is knowledge, skills and abilities that allow a person to understand the relationships between environmental components, understand the importance of nature and the environment for human health and the general well-being of society, and the ability to make smart environmental decisions based on this knowledge (Zabila, 2019, p. 55).

Education on ecology and the development of environmental competence is a very important task of modern education, since it allows you to teach young people environmental thinking and make a conscious choice in favor of sustainable development (Zabila, 2019, p. 58).

A person with environmental competence understands that every action he performs has an impact on the environment and is able to act responsibly, given this impact. She knows what actions can be harmful to nature and people, and knows how to choose more environmentally friendly alternatives. In addition, it can act responsibly in the areas of consumption, transport, housing and other areas of life where the environmental impact can be large.

Environmentally competent people are important agents of change in society, which can contribute to the preservation of the environment and the creation of sustainable development.

Teaching the properties of detergents can be an effective tool for the development of environmental competence of students. It is worth paying attention to the following features:

First, it is important to determine the content of the training. When studying the properties of detergents, it is necessary to focus on the environmental aspects of the use of such agents, in particular on their impact on the environment and human health.

Secondly, it is worth involving students in practical actions. Students should be able to independently check the properties of detergents, their impact on the environment and human health. For example, conduct an experiment using different detergents and compare their effectiveness and impact on the environment.

Thirdly, it is important to involve students in the analysis and evaluation of indevelopment. Students should be able to distinguish between environmentally friendly and harmful detergents, be able to find and evaluate indevelopment about their composition and properties.

Fourth, it is necessary to take into account the individual characteristics of students. Training should be adapted to the age and psychological characteristics of students, their interests and character. For example, younger students can study the properties of detergents through games and

experiments, older students can conduct research on the composition and properties of detergents and their impact on the environment.

Fifth, it is necessary to involve not only students, but also their parents and teachers. This will create a common culture of ecological consumption between students and adults.

Sixth, it is important to create motivation for learning. Learners need to understand the importance of knowledge about the properties of detergents and their impact on the environment and health in order to be able to make informed decisions about their future use.

In general, learning the properties of detergents can be an effective tool for the development of environmental competence of students. To do this, it is worth paying attention to the content of learning, involving students in practical actions and analysis of indevelopment, adapting to individual characteristics, involving adults in learning and creating motivation for learning (Korshikova, 2020, p. 179).

Based on the study of the properties of detergents, the ecological competence of students can be formed. This process is necessary in order to increase the level of environmental awareness and knowledge about the harmful effects of the use of chemicals on the environment (Korshikova, & Mironets, 2019, p.114).

When studying the properties of detergents, students can learn about the composition of these funds, the impact on the environment, the possible consequences of the use of certain substances. They can also learn about possible alternatives for detergents that are less harmful to the environment.

Therefore, the study of the properties of detergents can contribute to the development of environmental competence of students, help them understand how their actions can affect the environment and how to reduce the negative impact on the environment.

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MIZIAK, Oleksandra

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE IMPACT OF LINGUISTIC ENVIRONMENT ON THE DEVELOPMENT OF BILINGUAL COMPETENCE IN STUDENTS

The **aim** of this paper is to analyze the impact of linguistic environment on the development of bilingual competence among students.

Results. Bilingualism has become increasingly relevant in today`s globalized world. The ability to communicate proficiently in two or more languages is seen as a valuable skill that offers numerous cognitive, social, and economic advantages. This paper explores the influence of the linguistic environment on the development of bilingual competence in students. It delves into the ways in which language exposure, social interactions, and educational settings contribute to the acquisition and maintenance of bilingual proficiency.

The object of this research is to investigate how the linguistic environment affects the development of bilingual competence in students. It aims to analyze the key factors influencing bilingualism and its impact on students` language proficiency.

Research shows that students exposed to multiple languages from an early age tend to acquire better bilingual skills. For instance, children growing up in bilingual household often become proficient in both languages. Interaction within a bilingual community or engaging in conversations with peers who speak different languages can boost students` confidence and fluency in both languages. For example, students participating in bilingual clubs exhibit improved language skills. Bilingual education programs and language immersion initiatives positively influence bilingual competence. Students attending such schools tend to excel in both languages. In contrast, a monolingual educational approach may hinder bilingual development. The research underscores the importance of continued language use in maintaining bilingual skills. Students who actively read, write, and converse in both languages are more likely to preserve their proficiency.

In **conclusion**, this research reveals that linguistic environment significantly shapes students` bilingual competence. Exposure to multiple languages, positive social interactions, and supportive educational settings are pivotal in fostering bilingualism among students. Language maintenance remains essential for long-term bilingual proficiency. Recognizing and addressing these factors is crucial for educators and policymakers aiming to promote bilingualism and prepare students for a multilingual world.

**MOSKALENKO, Ruslan
GOLENKOVA, Yuliia**

<https://orcid.org/0000-0003-1553-8893>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

DESCRIPTION OF MEANS FOR DEVELOPING SPECIFIC ENDURANCE IN SPORT SAMBO

Aim. Provide a description of the tools used in the training process of Sambo athletes at various stages of preparation.

Results. The development of special endurance in Sambo is an important aspect of the training process for athletes because Sambo is a sport that requires a high level of endurance and physical fitness.

The special endurance of a Sambo athlete is the ability to efficiently perform high-intensity work for a certain period, as specified by the nature of the competition.

The duration of work is limited by the athlete's fatigue and their ability to continue. Therefore, special endurance is characterized by the athlete's ability to resist fatigue and recover strength after prolonged exertion.

In practice, there are two types of endurance: general and special. General endurance is determined by the ability to perform prolonged physical work at a moderate intensity. Special endurance is manifested in specific sports and is developed based on general endurance.

The unique aspect of Sambo athletes' training is characterized by the presence of technique complexes, endurance in performing specific actions, and tactics in matches. A Sambo athlete with high endurance to any physical stress can withstand dangerous situations for an extended period and usually competes at a very high pace.

Experts argue that special endurance is primarily trained through actual combat, and therefore, mat wrestling cannot be replaced by other exercises. One of the main methods of developing special endurance is mat wrestling. Additionally, partner exercises, practice throws with a dummy, frequent sparring with one or several partners, and sparring sessions longer than the regulated competition time are used to enhance Sambo athletes' special endurance.

The foundation of developing general endurance lies in aerobic training. Sports such as running, swimming, and cycling are excellent means to develop aerobic endurance. Aerobic exercises help improve the overall condition of the heart and lungs.

Having a good aerobic base is important in Sambo, as matches can be prolonged. To develop anaerobic endurance, high-intensity special preparatory or competitive exercises where the heart rate reaches at least 180 beats per minute or more are beneficial. Including interval training in the program helps develop both aerobic and anaerobic endurance, which is essential for various aspects of Sambo matches.

Strength endurance is typically developed through special preparatory exercises with a load of at least 30% of the maximum, performed with high amplitude, such

as partner squats, push-ups against the wall, partner throws, and competitive exercises like lifts from the mat.

Speed endurance is developed through speed throws within 20-25 seconds, jumps over a partner in a parterre position 20 times, jump rope exercises for 10-15 seconds, speed throws, and explosive movements from a low squat, among others.

To develop endurance for static efforts, isometric exercises with a load of 50%-60% of the maximum, holding static positions for 15-30 seconds, often in specific holds, as well as hanging on a crossbar or performing exercises in a prone position, are used.

Conclusion. Training programs for Sambo athletes are typically tailored to each individual, taking into account their current level of preparation and training goals. It is important to include exercises that are specific to Sambo, such as ground wrestling and standing wrestling, in the training program. Developing strength endurance is also crucial, as Sambo requires physical strength when executing technical moves and resisting opponents.

To achieve a high level of special endurance, regular and systematic training is essential. Athletes should also pay attention to proper nutrition and recovery after training to ensure the development of endurance and quick recovery after exertion. Coaches and athletes should keep track of training and use assessment methods to determine the effectiveness of their training programs and endurance levels.

MUDRYK, Olena

<https://orcid.org/0000-0001-9834-4212>

National Academy of the National Guard of Ukraine, Ukraine

MOTIVATING CADETS IN HIGHER MILITARY EDUCATIONAL INSTITUTIONS TO LEARN ENGLISH DURING AND AFTER WAR

In the modern world, where globalization and international cooperation are crucial components, knowledge of English is of particular importance for cadets in higher military educational institutions. Since Ukraine's accession to NATO can provide long-term security guarantees and increase integration into the international community, English language skills in this context become paramount. Therefore, it is important to realize that teaching English is a strategically important element in the context of the geopolitical and defence challenges facing the country and to pay special attention to the issue of motivating cadets in higher military educational institutions to learn it.

The cadets' willingness to learn English can be based on a variety of factors. Firstly, it is important to explain to cadets why learning English is critical to their professional activities. Proficiency in English can open up new professional opportunities, so the cadets' aspirations to grow professionally, to obtain high-level positions, and the understanding that English language skills makes them more attractive candidates for career prospects can serve as significant motivating factors. Secondly, the practical importance of learning English needs to be emphasized, particularly in terms of understanding that English language skills hold practical value in performing various missions, from handling reports and documentation to communicating with partners during joint operations. Furthermore, learning English contributes to the development of interpersonal skills, such as leadership, tolerance and cultural awareness. These skills are useful for military personnel when interacting with people from different cultures, and enable the Ukrainian military personnel to represent their position and inform the international community about the situation on the front line, contributing to a favourable image of Ukraine.

Since cadets' motivation can be individual and depend on their personal goals, values and internal beliefs, it is essential to consider these factors when developing English language teaching programs in military educational institutions. Attention should be paid to providing cadets with the necessary resources for learning English. This includes access to quality textbooks, online courses, and other educational materials. English language teaching should be practically oriented, providing valuable skills for professional use, such as effective communication in military contexts and interaction with international allies. It is also important to create a system of incentives for cadets who achieve high results in English, as this also plays an important role in motivating cadets to achieve high results in language learning.

Therefore, understanding the importance and practicality of learning English for military activities, support and incentive systems, understanding how English language proficiency meets the needs and objectives of the army can be a key motivational factor. A sense of patriotism and duty towards the country can serve as a strong motivation to learn English, especially in times of war when the country's security depends on the military.

MUKHINA, Tetiana

<https://orcid.org/0000-0002-1758-882X>

Berdiansk State Pedagogical University, Ukraine

DIGITALIZATION AND DIGITAL TECHNOLOGIES AS THE KEY TO SUCCESSFUL EDUCATIONAL PROCESS IN THE POST-CONFLICT PERIOD

In the modern world, technological advancements and digital innovations affect all aspects of our lives, including education. In the post-conflict period, when society faces the challenges of reconstruction and recovery, the process of digitization and the use of digital technologies in education are of paramount importance. This transformation offers a unique potential for improving the quality of education, increasing access to knowledge, and fostering creativity and innovation in the field of education.

The **aim** is to explore the features of digital technologies and the impact of the digitization process on the recovery of national education in the post-war period.

Results. Digital transformation not only changes the way of learning and teaching but also provides new opportunities and helps create a more adaptive educational environment given the current circumstances in Ukraine. We believe that the process of digitization and the use of digital technologies can address several crucial challenges related to the development of education after the conflict with Russia through key aspects: *access to education* (due to the war, a significant number of educational institutions in Ukraine have been destroyed or damaged, and access to some is restricted. The use of digital technologies can facilitate access to education through distance learning and online resources); *adaptation to change* (the post-war period may require swift responses to new situations and challenges. Digital transformation enables rapid modification of educational programs and materials to meet the needs of learners and changing circumstances); *personalized learning* (learners affected by the conflict may have diverse needs and levels of preparedness. Information technologies allow for individualized approaches to the educational process, taking into account each individual's unique circumstances); *psychological support* (digital technologies, such as virtual reality, can be employed for psychological support for all participants in the educational process); *monitoring and assessment* (digital platforms simplify data collection, progress monitoring of learners, and the assessment of educational outcomes post-conflict, contributing to the improvement of the educational process).

Conclusions. Therefore, digital modernization in education emerges as an exceptionally vital tool in addressing numerous challenges associated with the recovery and development of education in Ukraine during the post-conflict period. It has the potential to help create a more adaptive, accessible, and effective education system that aligns with the needs of learners and contributes to the recovery and development of the state in the post-conflict period.

MYROSHNYCHENKO, Mykhailo'

<https://orcid.org/0000-0002-6920-8374>

KUZNETSOVA, Milena'

<https://orcid.org/0009-0001-8255-4837>

BIBICHENKO, Victoria'

¹Kharkiv National Medical University, Ukraine

MYROSHNYCHENKO, Serhii

<https://orcid.org/0000-0003-4723-1490>

Public Nonprofit Organization of the Iziium City Council «Central City Hospital of Sandy Mother of God», Ukraine

THE IMPACT OF EXTERNAL POSITIVE MOTIVATION FOR OBTAINING EDUCATION AMONG STUDENTS OF A MEDICAL UNIVERSITY

Distrust of higher education is increasingly growing in Ukrainian society. It is not a secret for everyone that a certain proportion of graduates work in a profession other than their chosen one. Motivation has been shown to play a decisive role in choosing a future profession and further professional activity. However, despite the constant study of this issue by educators, the role of motivation in choosing a future profession remains not fully explored.

The **purpose** of this study was to determine the impact of external positive motivation to study in third-fifth-year students of a medical university.

Materials and methods. The study involved 42 students of the 1st Faculty of Medicine of Kharkiv National Medical University, using a sociological research method. This implied a survey using K. Zamfir's method, modified by A.A. Rean "Motivation of professional (educational) activity". During the course, the students were asked to rate the proposed motives for obtaining higher education on a point scale (from 1 to 5), for example: satisfaction from acquiring new knowledge and skills, the prestige of the chosen profession, the desire to avoid mobilization, the desire to receive a scholarship, the desire to get a diploma. In addition, students were additionally asked to answer three questions: 1) Why did you choose medicine as a field of professional activity; 2) What do you associate studying at the university with? 3) Describe your most vivid memory related to studying at the university.

Results. When surveying students of 3-5 years, the following data were obtained: 19% of all respondents stated that the main motive for their studies is the desire to receive a scholarship, while only 18% enjoy studying and 5% just want to get a diploma. Most of the interviewees chose medicine under the influence of their environment (parents, friends, etc.), many associate studying at the university with writing abstracts, meeting with friends, coffee and not getting enough sleep, the most vivid memories are related to the process of gaining knowledge during practical classes at various departments (anatomy, biology, pathophysiology). Very interesting is the fact that there were no significant differences in motivation to study among students of the 3rd, 4th and 5th years.

Conclusions. Thus, based on the data obtained during the study, it can be stated that the leading motives for educational activity among medical students were the desire to receive a scholarship and satisfaction from the learning process, which was confirmed by the answers to open questions.

NAGAYEV, Viktor'

<https://orcid.org/0000-0002-3130-6112>

GERLIAND, Tetiana

<https://orcid.org/0000-0002-7991-0431>

SAHACHKO, Yuliia

<https://orcid.org/0000-0002-0168-266X>

CHALIY, Igor

<https://orcid.org/0000-0003-4896-133X>

¹State Biotechnological University, Ukraine

²Institute of Vocational Education of the National Academy of Educational Sciences of Ukraine, Ukraine

DIDACTIC FOUNDATIONS FOR MANAGING STUDENTS' INDEPENDENT WORK IN THE CONTEXT OF SMART EDUCATIONAL TECHNOLOGIES

The **aim** of scientific research is to improve the didactic foundations of managing students' independent work in the context of the introduction of SMART educational technologies; determination of the features of the formation of a self-management strategy for the formation of professional competence of future specialists.

Main **results**. Management of independent work (IW) of students is determined by the technological process of planning the strategy of educational activities, motivation and self-organization of initial activities, promotion of the educational system. a new connection based on the important function of self-reflection. The concept of direct effective functioning of the student SR management system is the technology of didactic processes and digitalization of the lighting medium. This problem is particularly relevant in the minds of the organization of distance learning, which brings to light the need for technologicalization of pedagogical infusion through interactive digital technologies of pedagogical mutual interaction between subjects of education new process under the hour of independent work (IW).

The management of IW is based on a methodology that is directly focused on the individual work of students with structured initial material that conveys creative collaboration with distant experts. To indicate the minds of effective management of IW, one can add: high motivation before starting; the active role of the student as a subject of the pedagogical process; obviousness information culture; Knowledge and understanding of information systems. Based on these provisions, we have proposed to introduce pedagogical technology for managing the initial creative activity of students in the system of organizing their independent work.

The model of management of students' SR may be based on active initial-creative activity with the ability to integrate into the mechanisms of implementation on three levels: 1) institutional (initially ny process in the system of "building wealth – education"; 2) managerial (didactic processes of implementation educational programs in the "teacher - educator" system; 3) technical (interactive processes in the "educator - educator" system).

For the effective functioning of the educational management system, the regulatory activity of the teacher is required, which can be mediated through the

infusion of didactic skills and self-government of students. The three-level SMART-based technology for managing the independent work of students is divided on the basis of a systematic, competent, active, cybernetic, special developmental approach. There is a dynamic structure, the object of control of which is the initial creative activity, which is a ceramic object on the side of the investors and students, as well as SMART-lighted didactic methods. We need to mediate management functions.

The proposed three-tier SMART-lighting technology includes subsystems: motivation, planning, organization, control, coordination and information. The result of their subsequent implementation is the activation of didactic processes and organizational and technological algorithms in the pedagogical system, direct to the detailed structure of the initial creative activity of students and other Enhancement of clear characteristics of professional and creative competence of future specialists. The representations of the functional warehouse pedagogical system collectively indicate a complex managerial infusion into the independent work of students, which is indicated by the totality of actions and operations of psychological, didactic, organizational, reflective and developmental character.

The effectiveness of the initial methodical development was determined by the following clear criteria: the ability to develop activities on the level of creativity; the level of his cognitive activity; success; replenishment of software material; scientific fervor of acquired knowledge; systematic thinking; the importance of knowledge, skill and skill; productivity; Practical tasks tend to prevail in the minds of insignificance and ridicule; building up to self-government and self-illumination, the ability to infuse formed managerial abilities and abilities into the recruiting team and, in addition, specialness. The results of research at the State Biotechnological University over the period 2021-2023 showed an increase in the creative activity of students by 25% and, as a result, by 20% of their level of formation of the primary organization these independent works.

Conclusions. The basis for conducting scientific and practical research was the organization of technological stages based on SMART-lighting technologies (motivational-oriented, planning, cognitive-transformative, control-analytical, regulation Val-developmental), as well as the importance of peer management of students' initial creative activity (institutional, managerial, technical). Didactic methods, forms and methods of remote organization of self-management of independent work of students in a SMART-educational environment are outlined.

A model of the strategy of self-management of independent work of students in the minds of technological provision of lighting activities has been developed. The results of pedagogical experiments were analyzed from the infusion of elements of self-government, initial creative activity of students to the level of formation of professional competence of future teachers.

NIKOLAIENKO, Yuliia

<https://orcid.org/0000-0002-4635-2461>

National University «Yuri Kondratyuk Poltava Polytechnic», Ukraine

COLLABORATION SKILLS DEVELOPMENT WHILE TEACHING ENGLISH TO UNIVERSITY STUDENTS

The **purpose** of the abstract is to analyze the peculiarities of collaboration skills development while teaching English to university students.

Results. Collaboration skills belong to key soft skills which are in high demand in labor market and extremely significant for a successful career. Collaboration skills refer to the capacity of an individual to interact and cooperate with other individuals in a group in order to contribute effectively to reaching common goals. These skills include building shared understanding of the task that must be done by a group (communication, search for information, division of responsibilities); contributing (participation in group activities) and regulating (contribution evaluation, resolving differences and conflicts, adaptation of behavior for better cooperation).

In order to develop collaboration skills effectively it is necessary to establish special conditions while teaching English. This can be achieved by means of integration of all communicative language activities (listening, reading, speaking and writing), creating English speaking environment in the classroom, use of interactive technologies and increasing students' motivation to participate actively and practice their skills.

The first stage deals with building students' awareness of the term "collaboration skills". It can be done not only in the form of teacher's explanation. There is a number of more interesting activities, such as brainstorming, students' search for information in various sources with further discussion or debates. The second stage is organizing activities for soft skills development mainly in peer or group work: 1) communicative situations; 2) role plays and business games; 3) active listening (groups receive different questions, after listening students change groups and work together representing their parts of information); 4) project work; 5) guided discovery (for presenting new grammar rules and constructions); 6) learning by teaching (a student plays a role of a teacher and gets a task to explain something new to his / her partner, then they change their roles); 7) creative tasks (write a story, a blog, make a video, an ad etc.). To make the process of collaboration skills development successful a teacher should maintain a continuous support and feedback while students work in groups. The third stage deals with the process of evaluation when students analyze their work and results focusing on their contributions. This stage can be the most difficult for students if they lack reflection skills. To facilitate this process it is recommended to a teacher to prepare a list of questions for students' self-evaluation, e.g. 1) Was it easy / difficult for me to work in this group? Why? 2) What did I do the best? 3) How can I improve my contribution next time? etc.

Conclusions. While teaching English at university it is important to provide special conditions and organize activities to practice collaborations skills which students need for their personal and professional development.

NOZDRACHOVA, Daria

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

POSSIBILITIES OF USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN CHEMISTRY LESSONS DURING DISTANCE LEARNING

The **aim** of this paper is to analyze the possibilities of using artificial intelligence technologies in distance learning for chemistry lessons.

Results. The use of artificial intelligence (AI) is becoming increasingly prevalent in various fields of science and technology, including education, particularly in the study of natural sciences. The emergence of various ICT tools and virtual laboratories, as well as mobile applications capable of performing specific functions on behalf of the user, is generating excitement.

The use of AI in teaching chemistry in secondary educational institutions allows for a more accessible, automated, and engaging learning process for students. The aim of this research is to analyze programs and applications that utilize artificial intelligence technologies and can be applied in chemistry lessons.

One of the main applications of AI in chemistry is data analysis. Virtual chemical laboratories that utilize AI algorithms and technologies allow for quick and accurate experimentation and analysis of the obtained results. For example, the ChemDraw program is used for creating and analyzing molecular structures, as well as predicting their properties.

Another application of AI in chemistry is the development of predictive models. AI can be used to predict reactions between chemical substances and forecast their properties. For instance, the free program Avogadro enables the use of machine learning to develop predictive models that can be utilized for predicting the structure and properties of molecules.

Labster laboratories also utilize innovative technologies such as virtual reality, which allows for virtual conducting of real experiments in a safe and environmentally friendly environment. Students can learn chemistry and acquire knowledge in various fields of chemistry by engaging in interactive exercises and simulations.

In addition, ChatGPT can be used to create differentiated tasks, assist in literature and information source selection, learn new terms, and generate taxonomies, checklists, and molecule modeling.

Conclusions. Integration of artificial intelligence in the educational process allows for more personalized learning. Adaptive programs utilizing artificial intelligence can identify the most effective approach for each student, taking into account their individual characteristics and needs. AI tools also serve as additional support for teachers in lesson preparation.

OLEFIRENKO, Nadiia

<https://orcid.org/0000-0002-9086-0359>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

METHODS OF USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN EDUCATION

In recent years, digital technologies have integrated into the educational space and caused significant, radical changes in education. Over several years of online education, especially in the context of a pandemic and war, students have become accustomed to multimedia presentations, methods for facilitating collaborative activities, digital models, interactive simulations, high-quality video materials, and electronic methods for assessing knowledge assimilation, along with mass online courses. Simultaneously, all participants in the educational process must adapt to the use of new technologies, take into account new challenges in the organization and content of education and consider the capabilities of artificial intelligence technologies to enhance the efficiency of the educational process.

It is possible to determine the ways of using artificial intelligence technologies (chatbots, programs for generating images, programs for generating animations, stories and fairy tales, programs for implementing individualized training etc.) in the educational process:

- generation of initial ideas during the implementation of creative tasks, such as educational projects, preparation of assignments according to specified criteria, preparation of tasks for competitions, development of lesson plans, and more;
- rapid gathering of information on new topics;
- obtaining explanations of educational material, for example, clarification of the essence of certain concepts, providing guidance on solving educational tasks, searching for methods to overcome difficulties, and so on. in this process, the learner can independently determine the level of detail or depth by asking questions;
- checking or correcting formed ideas;
- generation of images for use as illustrations in presentations;
- generation of textual materials for translations, data analysis, development of data structuring skills, etc;
- individual and adaptive learning based on personal preferences, one's own learning history, proficiency level, and more.

Therefore, the use of artificial intelligence in education holds great potential for pedagogical purposes. However, its effectiveness depends on a thoughtful approach. This requires a revision of tasks, an increased emphasis on creative assignments, and active development of practical skills and expression of personal judgments, rather than mere familiarity with educational materials.

These artificial intelligence technologies are becoming increasingly accessible, and students who embark on their professional careers in a few years will already be familiar with their advantages, capabilities, and limitations.

OLEFIRENKO, Nadiia

<https://orchid.org/0000-0002-9086-0359>

KURHANSKYI, Andrii

<https://orcid.org/0000-0003-4354-2742>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

KEY ISSUES IN PREPARING STUDENTS FOR COMPUTER SCIENCE COMPETITIONS

The **aim** of this paper is to analyze the key issues in preparing students for computer science competitions.

Results. Computer science competitions for school students are very different. They vary from contests on information technologies to championships in programming. Each competition has its own specific features based on problems types. So, when we discuss topic of contests we mean only theme, not tasks' difficulty. This paper aims to underline key issues teachers are frequently faced with in preparing students for different competitions. In our opinion, there are several important points that influence on successfulness of preparing students for competitions:

- choice of participants for a team - one of the most specific issues because it asks a lot from the personality of participant. For example, their will to work, abilities for self-education, learning skills, psychological stability, etc.;
- work with unknown platform - most of the contest are held on specific platforms which can be not user-friendly. So, we think one of the goals is to demonstrate how to work with different platforms, give opportunity to attempt it if such action is possible and the most needed to teach how to adapt to unknown conditions;
- tasks far exceed the level of the school program - participation in any contest requires knowledge which are not taught at school. For example, topics on algorithms and data structures, on discreet math, on statistic or even on some physics;
- diverse competitions - there are too many different competitions which vary required knowledge. So, there are no guaranties that preparing for one of them can help in others;
- annually increasing level of tasks' difficulty - each year tasks become harder and harder. If compare tasks given to students in 2023 and even in 2013, it can be seen very clear that lower bound of knowledge to be competitive enhanced;
- systematical renewing themes proposed for contests – for example, several years ago it could not find tasks on range queries in Ukrainian Olympiad in Informatics;
- preparing for the most of the contests is time-consuming and labor-intensive process that involves many aspects and takes at least several years because of amount of knowledge and skill needed to receive for staying ahead.

In **conclusion**, it needs to be said that preparing for competitions is very difficult process for both students and teachers. And this way of taking part in contests has a lot of issues to overcome.

NIKOLAIENKO, Yuliia

<https://orcid.org/0000-0002-4635-2461>

OVSII Anna

National University «Yuri Kondratyuk Poltava Polytechnic», Ukraine

SPECIFIC FEATURES OF CAR MANUALS TRANSLATION

The **purpose** of the abstract is to analyze the specific features of car manuals translation.

Results. Car manuals are essential documents that provide detailed information about vehicle operation, maintenance, and troubleshooting. As the automotive industry is global, these manuals often need to be translated into multiple languages to cater to a diverse customer base. The process of translation, especially for technical documents like car manuals, is not straightforward and involves various challenges and specific features.

- 1. Technical Terminology.** Car manuals are replete with technical jargon specific to the automotive industry. Translational transformations must ensure that these terms are accurately translated, preserving their original meaning. This often requires the use of specialized automotive dictionaries or glossaries.
- 2. Cultural Adaptation.** Beyond mere translation, car manuals may need localization. For instance, a manual originally written for a European audience might reference driving on the right side of the road, which would need adjustment for countries where driving is on the left.
- 3. Diagrams and Illustrations.** Many car manuals include diagrams, charts, and illustrations. Translational transformations must ensure that any text within these visuals is accurately translated and that the visuals remain clear and comprehensible in the target language.
- 4. Safety Instructions.** Safety instructions are paramount in car manuals. Any translational transformation must prioritize the accurate and clear conveyance of safety information to prevent misinterpretations that could lead to accidents or misuse.
- 5. Consistency and Standardization.** Given that a single car model might have manuals in dozens of languages, maintaining consistency across all versions is crucial. This ensures that all users, regardless of language, receive the same quality of information and instructions.
- 6. Challenges of Automated Translation.** While machine translation tools can expedite the translation process, they often fall short in capturing the nuances of technical language. Human expertise, familiar with both automotive terminology and the intricacies of the target language, remains indispensable.

Conclusions. The process of translation of car manuals is characterized by a need for accuracy, cultural sensitivity, and a deep understanding of both the source and target languages.

PANASHCHENKO, Roman

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

CHEMISTRY EDUCATION FOR STUDENTS DURING THE WARTIME AND IN POST-WAR UKRAINE

The **aim** of the paper is to analyze the chemistry education for students during the wartime and in post-war Ukraine.

Results. The specific competencies of science literacy are forming during the school years. Chemistry is one of the most important parts of scientific branch of knowledge. However, the methods of teaching, especially in the secondary school are not very attractive for pupils because chemical science in school programs is speculative and operate concepts, which are often complicated for children to be imagined. A spectacular chemical experiment in a school laboratory does not show how it can relate to a real life and current problems.

Any war is always tragedy and challenges. Despite of that, the wartime is period when huge numbers of data come to us, and unexpected situations invoke and restore deep classical knowledge which help us to survive. According to this, in my opinion, teachers must include useful chemical knowledge in presentation of new topics and home tasks to help their students apply valuable skills in practical in everyday experience. For example, a lot of peoples required pure water when they hide in shelters or occurred in a zone of ecological disasters as in Nova Kachovka after blooming up of Kakhovka Hydroelectric Power Plant dam.

In this situation a regular bleach “Belizna” can help to sterilize fruits and vegetables, to keep their personal hygiene items from infections. Everything that you have to know is properties of water solutions and their concentrations (Topic “Solutions” in a school’s program). To make suitable permissible solution from commercial product “Belizna” (15% dilute solution of Sodium Hypochlorite) to purify items you need to understand the principles of solution creation, its concentrations and how to change concentrations.

This is one of basic chemical concepts that relates to real life needs in any period of time but probable it becomes more visible in period of crisis. The same words can be said about distillation process of water which can be provide in home conditions. There are a few effective methods to purify the water, sterilize some foods and hygiene items. The main thing is to highlight these methods during the chemistry courses in the school.

Conclusions. Thus, the wartime shows that chemistry literacy has crucial meaning for everyday life in unusual situations which our global world presents to humanity. It can happen in any country or any geographical location. The war is the worst thing to understand it but the world is full of potential ecological, technogenic challenges and we must be ready for them. The relevant chemistry teaching helps people to survive in such changeable world. In my opinion, the biggest tasks of chemistry education in post-war Ukraine will be creative rethinking of war experience everyday life challenges and including everyday life contexts to chemistry teaching in the schools.

**PAPKA, Liliia
GOLENKOVA, Yuliia**

<https://orcid.org/0000-0003-1553-8893>

H.S. Skovoroda Kharkiv National Pedagogical University. Ukraine

JUSTIFICATION OF THE NEED TO CULTIVATE ARTISTRY IN RHYTHMIC GYMNASTICS

Aim. Analyze the necessity of using dance techniques to cultivate artistry in rhythmic gymnastics.

Results. Rhythmic gymnastics has recently seen significant changes in the rules of competitions, in which the demand for the assessment of artistry, originality of composition and performance technique increases.

Artistry in rhythmic gymnastics is no less important than technical skills, adding artistic value to a gymnast's performance and contributing to successful competition outcomes. To evaluate artistry, a separate panel of judges (Panel A) has been established to identify artistic errors made by gymnasts. The overall artistry score is assigned based on the sum of deductions for these errors.

Artistry includes the ability to convey the character, rhythm and tempo of a musical composition through movements during performance. The choice of music for the performance is very important.

The music should match the style and theme of the performance, as well as emphasize the nature of the movements and the emotional depth of the performance. A gymnast must possess the skill of an expressive face in order to convey the emotions and mood of the composition.

This includes the use of smiles, expressive glances, and gestures. The gymnast's costume should also correspond to the performance's storyline and emphasize her individuality. Props such as a hoop, ball, clubs, ribbon, and so on, can be used to create beautiful images and highlights in the routine.

The gymnast should have the ability to feel the music and express her emotions during the performance. This helps create her own persona and makes the performance more emotional.

Smoothness and harmony in movements are essential in artistic performance. The gymnast should have good staging and choreography that accentuates her technical abilities and expressiveness. Through the tools of dance choreography, the athlete can create an individual image.

So, in the preparation of gymnasts, it is essential to incorporate elements of dance artistry to add artistic value to the gymnast's performance and contribute to its successful execution in competitions. The use of exercises to cultivate a sense of rhythm and tempo allows the gymnast to create a specific mood and emotional impact.

Techniques that shape beautiful lines during elements enhance amplitude and create a sense of space. Dance exercises can be used to convey specific emotions and moods, achieved through expressive facial expressions, gestures, body postures, and movement choices.

Thanks to dance techniques, gymnasts, together with their coach or choreographer, will be able to create various dance compositions that are not only technically challenging but also have expressive and artistic value. These compositions will help them convey their feelings and ideas through movements and expression, making the routines more interesting and spectacular.

Conclusions. Modern rhythmic gymnastics is a complex and highly coordinated sport with its unique characteristics. It demands gymnast to combine technical mastery with aesthetic expressiveness and the ability to synchronize physical exercises with musical accompaniment.

Consequently, there is a need to incorporate dance training methods into the training process of gymnasts at various stages of their athletic development. This integration will contribute to the improvement of gymnasts' athletic results.

PASICHNYK, Maryna
SMOLIANIUK, Nataliia

<https://orcid.org/0000-0003-3524-581X>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

DIDACTIC TOOLS FOR THE FORMATION OF GENERAL CULTURAL COMPETENCE OF PRIMARY SCHOOL STUDENTS

Aim. To summarize the practical experience of forming general cultural competence in primary school students.

Results. Implementing various areas of general cultural training of primary school students, educational institutions regularly hold cultural events, artistic events, artistic and concert activities, thematic educational hours, etc.

The formation of general cultural competence of primary school students takes place virtually at every lesson, where they study fiction and non-fiction literature, listen to outstanding musical works, get acquainted with paintings by famous world and national artists, watch episodes of films with historical and cultural content, conduct museum excursions - as listeners and speakers; attend performances, galleries, participate in various levels of creative activities where they have the opportunity to demonstrate the best achievements of Ukrainian culture and get acquainted with the organization of students' cultural leisure time also contributes to the formation of general cultural competence: participation in circles, clubs, studios, participation in the organization of holidays, concerts, performances, etc.

The use of active and interactive teaching methods in the classroom allows us to consider more problematic issues, model different pedagogical and life situations, and ways to solve them; it is in such classes that students learn to defend their opinions, demonstrate evidence and reasoning, make quick decisions, "try on" different roles, and acquire not just new knowledge but also new traits and feelings.

It is also important that mastery of foreign languages and information and communication tools opens up new opportunities for students to learn about the world and the spiritual heritage and cultural achievements of both national and other countries. Thus, mastery of English facilitates integration into the educational environment of another country, and information technology facilitates the search for information necessary for learning.

Conclusions. The general cultural training of primary school students is a holistic system implemented in the process of both classroom and extracurricular activities of students, active participation in which will ensure a high level of general culture, and as a result - the formation of general cultural competence.

PAVLENKO, Diana

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE ROLE OF A TEACHER OF UKRAINIAN LITERATURE AFTER THE WAR

Interest in antiquity and folkloristics, which contributes to the formation of national consciousness, can be increased by teachers of Ukrainian literature, who are bearers of folk customs and traditions and are similar to historians.

Teacher should be a friend, mentor, and psychologist to a student at all times, especially after a war. Therefore, the best advice to help children with post-traumatic syndrome is to select literature that will inspire them to keep living.

Teachers of literature shape the consciousness of future generations by paying attention to historical events depicted by the authors. They provide a positive or negative evaluation from the perspective of morality or ethics, so that students understand the mistakes made in the past and avoid repeating them in the future.

A teacher must show the student that human values such as love, friendship, loyalty, justice, and selflessness still exist in the world. The teacher's task is to reawaken these feelings, to pull the student out of the darkness of introversion and isolation.

We believe that due to the war and quarantine, students were away from society for a long time and lost the skill of communication. Post-war lessons should be conducted in pairs or groups.

During peacetime, the Ukrainian literature teacher helps to form national identity. They organize events that showcase the customs of the people, involve students in theatrical productions, and take them to ethnographic museums.

Aim: to determine the significance of the teacher of Ukrainian literature after the war. Find out the importance of literature.

Results: It has been proven that literature is connected with history and must be studied in order to know the past of one's people. It was illustrated that lessons should be made interactive in order to teach students how to communicate with each other. It is believed that the worldview of students is influenced by teachers.

Conclusion: After the war, a lot of work will need to be done by teachers. Students must be taught, given psychological support, and helped to raise their national spirit.

It is also important to cultivate a sense of patriotism. In a traumatized society, it is crucial to have individuals who will teach how to live in peace and harmony. To achieve this goal, educational lessons on moral and ethical topics must be conducted.

The role of teachers is crucial in shaping a conscious and responsible citizenry. Therefore, it is important that teachers are dedicated to their profession and their students. Ultimately, the fate of humanity rests in the hands of teachers.

PEDAN, Radyslav
YESILEVSKYI, Valentyn

Kharkiv National University of Radio Electronics, Ukraine

REFORMING EDUCATIONAL PROGRAMS IN TEACHING MODERN METHODS OF RECOGNITION IN COMPUTER VISION

As educators, our primary goal is to equip aspiring visionaries with the skills and knowledge needed to thrive in this captivating field. We should provide a comprehensive understanding of computer vision, and it transcends the mere acquisition of modular knowledge by focusing on key skills.

If discussing modules, nowadays courses more often contain such topics as “Image Processing Fundamentals”: Image processing serves as the cornerstone of computer vision. Students will delve into the fundamentals of image manipulation using the powerful Python libraries, OpenCV and Pillow. After that “Machine Learning Classification “: that gives understanding of the diverse machine learning classification methods is vital for any computer vision enthusiast. We cover essential techniques such as k-nearest neighbors, logistic regression, and support vector machines. We suggest to empower students with the ability to make informed choices when applying these methods to real-world problems. “Neural Networks”: In the age of deep learning, neural networks are at the heart of computer vision advancements. Students will become well-versed in fully connected neural networks and convolutional neural networks. They will explore various components, including layers and activation functions, and gain insights into renowned CNN architectures like ResNet and LeNet. “Object Detection Techniques”: Object detection is a pivotal aspect of computer vision, with applications ranging from security surveillance to autonomous vehicles. These techniques provide a holistic view of how computers can identify and locate objects within images. After learning the basic theory, students must understand the fundamentals of Practical Cloud Deployment. The culmination of learning course is a hands-on project where students build their own computer vision application. They will create custom classifiers, train them, and test their models on real-world images. To ensure real-world applicability, students will deploy their applications to the cloud using Modern courses center on the Python programming language, a versatile and widely adopted language in the field of machine learning and computer vision. Python's ease of use and rich ecosystem of libraries make it the ideal choice for our students to dive into the world of image processing and analysis.

To modernize the education process, we prioritize not only knowledge acquisition but also the development of practical skills that empower students to tackle the dynamic challenges of the computer vision field. Courses should design to provide a solid foundation in key skills that will enable our students to embark on their own innovative journeys. With a strong grasp of Python, image processing, machine learning, neural networks, and object detection techniques, our students are poised to make significant contributions to the world of computer vision.

PETRYK, Kristina
HOMENIUK, Daria

<https://orcid.org/0000-0003-0615-5217>

Berdyansk State Pedagogical University, Ukraine

DIDACTIC GAME AS A MEANS OF ACTIVATING THE EDUCATIONAL AND COGNITIVE ACTIVITY OF PRIMARY EDUCATION STUDENTS DURING DISTANCE LEARNING

The **aim** of this paper is to analyze the didactic game as a means of activating the educational and cognitive activity of primary education students during distance learning.

Results. New content of education based on the formation of competencies necessary for successful self-realization in society. Focus on the needs of the student in the educational process, child-centeredness. It also focuses on the cross-cutting process of education that forms values. To achieve this, the cognitive activity of primary school students should be interactive and developmental in nature.

It is the use of didactic games that allows us to achieve these goals. Because in the process of didactic games, participants develop the habit of concentrating, thinking independently, developing attention, and the desire for knowledge. The game in the learning process creates motivation close to natural, arouses interest, increases the level of academic work, and develops communication skills. Compared to other forms of education and upbringing, the advantage of the game is that it achieves its goal unnoticed by the student.

There is a fairly large number of scientific works and scholars that highlight the effectiveness of using didactic games in the educational process of primary school (L. Vygotsky, V. Sukhomlynsky, N. Bibik, O. Savchenko, L. Koval, S. Skvortsova, M. Bogdanovych, M. Holovan, H. Selevko, M. Vashulenko, N. Lystopad, S. Skvortsova, etc.)

The main purpose of the game, according to these scientists, is to increase students' interest in educational and cognitive activities, which positively affects the overall effectiveness of the educational process in primary school.

In the New Ukrainian School, the game is one of the main methods of teaching students, because game activity is a general need for a child, and for a teacher it is a way to implement various tasks of the educational process. It is proved that didactic game, game lessons and techniques increase the effectiveness of students' perception of educational material, diversify their cognitive activity, introduce an element of curiosity, and as a result, increase their academic performance.

A didactic game is a game that follows established rules. It is an educational tool that serves a didactic purpose. An important aspect of the game is the achievement of a clearly defined goal. The competencies acquired through didactic games, such as perseverance, critical thinking, or risk-taking, contribute to personal development. The value of this type of work lies in the fact that in the process of playing, children actively acquire new knowledge, due to the fact that the motivation for activity increases.

Didactic games are used not only to make lessons more interesting, but also for motivation, explanation, repetition, or review. The Pedagogical Dictionary defines a didactic game as a spontaneous activity of children that pursues certain didactic goals. In the process of a didactic game, participants develop spontaneity, concentration, develop the habit of thinking creatively, develop attention, the ability to cooperate, and make students use previously acquired knowledge and skills.

The classification of games by material emphasizes their focus on learning, cognitive activity, but it only superficially reveals the basics of didactic games: features of game activity, game tasks, game actions and rules. The classification of didactic games proposed by O. Sorokina is subordinated to this goal, according to which they are distinguished:

1. Travel games, which should enhance impressions, draw attention of primary school students to the world around them.
2. Games-assignments. They are based on actions with objects, toys, verbal instructions.
3. Assumption games, in which primary education students are faced with a problem and a situation is created that requires comprehension or performance of a certain action.
4. Riddle games aimed at testing students' knowledge and ingenuity.
5. Conversation games based on communication. Such games help to activate emotional and mental processes.

Conclusions. So, didactic games are used not only to make lessons more interesting, but also to motivate, explain, repeat or test. A didactic game is defined as a spontaneous activity of primary school students that pursues certain didactic goals. In the process of didactic play, participants develop spontaneity, concentration, develop the habit of thinking creatively, develop attention, the ability to cooperate, and also make students use previously acquired knowledge and skills, develop the habit of concentrating, working thoughtfully, independently, develop attention, memory.

PETRYK, Kristina

MALYSH, Yana

<https://orcid.org/0000-0003-0615-5217>

Berdyansk State Pedagogical University, Ukraine

COMPARATIVE CHARACTERISTICS OF GERMAN AND UKRAINIAN PRIMARY EDUCATION

The **aim** of this paper is to compare the characteristics of primary education in Germany and Ukraine.

Results. The development of education is one of the most complex, important and financially intensive problems of modern Ukrainian statehood. Without proper education, the state, people and culture have no future. Conversely, effective education is an impetus that stimulates creativity, encourages people to act, and educates them in a way of life that is consistent with the forms of civilisation and the way it is organised and implemented.

The problem of primary education development in Ukraine has been studied by such scholars as T. Havrylenko, T. Denysiuk, T. Kravchenko, O. Savchenko, and in Germany – F. Kashuba, W. Tyagur and others.

The purpose of this paper is to study and analyse primary education in Ukraine in comparison with Germany, as well as to consider German society through the prism of the country's development of science and culture.

Education reform in Ukraine is a process of adapting the national educational system to the changes that have taken place in European countries over the past twenty years in adapting the country's education system to recognise the role of knowledge as a driver of social well-being and progress. Therefore, the issue of ensuring equal access not only to education, but also to quality education is important not only for the development of the education sector, but also for the development of society as a whole.

Ukraine's accession to the European educational area is extremely important for the further development of our country. This process is an important step forward in the field of education. The purpose of all innovations is to introduce European educational standards, trying to get closer to the European level of education. This should be achieved both by the quality of knowledge and the introduction of innovative technologies, and, no doubt, by the whole system of organising the educational process and assessing the quality of knowledge in modern conditions.

Therefore, it can be noted that an important component of scientific support for the education sector reform is the analysis of international experience.

The German education system is one of the oldest in the world and successfully combines centuries-old university traditions with the latest educational trends. According to some estimates, more than one hundred and fifty thousand foreigners study here. The German education system traditionally divides primary, secondary and higher education.

Primary school in Germany (Grundschule) – education begins at the age of 5 or 6 and lasts from four to six years. Classes in all grades follow the same curriculum. For the first two years, all subjects are taught by a class teacher and students do not receive grades, but only a general performance profile that provides information about individual strengths and weaknesses in the study of certain

subjects. Starting from the third grade, subject teachers begin to teach lessons. Upon completion of primary school, students receive a recommendation on which of three types of schools to continue their education in: a basic school, a real school or a gymnasium.

In Ukraine, primary education lasts 4 years. Children usually start school at the age of six. Learning outcomes in primary school are assessed verbally. The 4th grade ends with the state final assessment of graduates' academic achievements, most often in the Ukrainian language, reading and mathematics. The state final assessment in primary school is carried out only to monitor the quality of educational activities of educational institutions and the quality of education.

The grading scale for pupils' work differs from the Ukrainian one: the lower the grade, the better and higher it is. In Germany, there are grades ranging from "1" (excellent/sehr gut, ausgezeichnet) to "6" (poor, unsatisfactory/mangelhaft), with intermediate grades such as 1.1, 2.5, 4.3, and so on.

Conclusions. Today, education is a key factor in international competition. Germany offers many opportunities for study and research. Thus, the description of primary education in Ukraine and Germany gives us an idea of how national education differs from current trends and provides an incentive for further research.

PONIKAROVSKA, Svitlana

<http://orcid.org/0000-0001-9432-402X>

Kharkiv National Automobile and Highway University, Ukraine

TEACHING REFERENTIAL TRANSLATION TO STUDENTS OF NON-PHILOLOGY SPECIALTIES

Basically, translation can be divided into two main types – written and oral. Having the common goal, they still take place in completely different conditions. While translating a written text a translator can put the text aside for a while and return to it later, can use dictionaries, consult with specialists, and completely edit the text in the end. Interpreters do not have such advantages: they must instantly react and respond to the message and immediately translate it correctly, which is not completely impossible, but still harder for a student of engineering specialty. Therefore, here we just stick with written, in particular, referential translation to clearly outline its mechanism and goals.

There are certain skills required for written translation and these skills must be taught. Those who translate become the main mediators who ensure communication and convey the content of the text. Referential translation, although it may be oral, actually belongs to the written form of translation which is at the same time preferable for teaching non-philological students. The skills of such translation also prove to be a means of saving time when reading a large number of printed foreign texts. In the conditions of the information flow, when the reader does not have time to physically perceive all the incoming information, they can use the information in the form of a secondary text (abstract), which is a short message about the main content of the material of the foreign language text and gives an idea of its topic. The main goal when reducing the amount of information is to preserve its main content. Since the task of the essay is to list the issues that are highlighted in the text, and not to reveal them, then students can be given exactly such a task – to find the main idea and write it down. The style of an abstract translation is, as a rule, arbitrary, its main purpose is to give the reader the opportunity to form an appropriate idea of the abstract material, to acquaint him with it. Though the text in translation is times shorter, the formation of translation skills should emphasize the fact that the translated text is derived from the original text. Speaking about the content of the text, we mean that the content of the text is not just combination of letters and words, it is also the ideas, feelings, associations of the text itself. In other words, the content of the text is also outside the text – in the minds of those who wrote, and in the minds of those who perceive. Words have a meaning before they are used in a text, but depending on the content, the meaning can be different.

There are also many types of errors that occur in the process of conveying the meaning of the original text, such as distortions, inaccuracies or vagueness, so the search for the optimal translation option and finding the optimal translation solution, analysis of translation options, paraphrasing, descriptive, tracing or approximate translation are used. Difficulties such as false translator friends, polysemous words, non-equivalent vocabulary are a particular challenge and there are ways for students to deal with them. The personality of students also needs development, as translation competence includes linguistic knowledge along with general cultural erudition and certain psychological abilities that should be developed in students and that teachers should encourage.

PONOMAROVA, Natalia

<https://orcid.org/0000-0002-0172-8007>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

ONLINE CAREER GUIDANCE: CHALLENGES AND OPPORTUNITIES

Aim. The modern world is extremely dynamic and requires the younger generation to deeply comprehend their future and choose a professional strategy. Career guidance of students is of particular importance in this context, as it helps school graduates to make an early and informed choice, contributing to further successful professional careers and life self-realization. The purpose of the abstract: to establish the peculiarities of the implementation of the components of career guidance work with students in the conditions of online education

The results. The significance of the teacher's career guidance work lies in several aspects. Firstly, this activity contributes to the identification of students' abilities and interests, when the teacher, who is familiar with the potential of each of them, can timely identify gifted and interested in a particular subject area of career guidance and direct their efforts in the appropriate direction of developing skills and abilities. Secondly, the career guidance work of a teacher provides opportunities to help students discover a wide range of their professional opportunities related to a specific subject area. Thirdly, teachers can actively interact with representatives of professional communities, organize meetings, workshops and internships for students, which will enable young people to gain practical experience and understand what a particular professional environment looks like. Fourthly, teachers can help students prepare for admission to educational institutions and facilitate the selection of appropriate vocational training programs, advise on the requirements for admission to vocational training and current aspects of admission campaigns.

Conclusions. In the context of distance learning, the implementation of the functions of a teacher in career guidance work with students has the following features. Internet resources are the main means of career guidance and diagnostics. Implementation of career guidance remote consultations can take place in synchronous and asynchronous modes, provided that participants master the basics of online communication. Traditional individual, group and mass forms of career guidance are implemented in an online format, their list is significantly expanded and requires special training in acquiring skills and abilities for productive participation. Coordination of career guidance activities of career guidance subjects in the conditions of distance learning requires the establishment of stable online communication and multi-level connections between them. Effective career guidance work in the virtual space actualizes the problems of forming the appropriate level of media literacy of participants in career guidance work.

PONOMAROVA, Vlada

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

HISTORICAL PERSPECTIVE OF GRAPH THEORY DEVELOPMENT

The **aim** of this paper is to analyze the historical perspective of graph theory.

Results. Recently, there has been a growing interest in graph theory among specialists in various fields of scientific research. Graph theory is of exceptional importance in connection with theoretical cybernetics, in particular automata theory, operations research, coding theory and game theory. In parallel with traditional fields of use, such as mathematics, computer science, physics, electrical engineering and chemistry, this theory has found application in sciences that were previously considered remote from it, in economics, sociology, linguistics and other fields (Shevchenko, 2021).

Graph theory has a rich history, and of particular interest is its origin as a scientific direction in the works of Leonard Euler and Gustav Kirchhoff (Kuzmenko, 2020).

In the XVIII century, and it was in 1736, the Swiss mathematician Leonard Euler solved the famous problem of the seven bridges of Königsberg. Königsberg (modern Kaliningrad) was located on two banks of the Pregol River, and on these banks there were seven bridges connecting four land masses (Zinchenko, 2022).

The task was that you can pass all these seven bridges so that each bridge was passed only once and executed in the initial position. Leonard Euler solved this problem, and he did it by creating an abstract model, which he called a "graph." In his model, he replaced land masses with points (vertices) and bridges with lines (edges).

Leonard Euler established that the Königsberg seven-bridge problem had no solution, and his work led him to think of graphs as a mathematical object that could be explored and formalized. This important step leads to the creation of graph theory in science and mathematics.

Thus, the creation of graph theory in the 18th century initiated a new branch of mathematics, which later proved useful in solving various practical problems, including routing in networks, analysis of social networks, transport networks, information theory and many other areas.

In the 19th century, Gustav Kirchhoff made a great contribution to the development of graph theory (Kirchhoff Gustav Theodore, 1824-1887). He was a German physicist and mathematician who made important contributions to graph theory through his work in the field of electrical networks and flows of electrical energy (Graph Theory, 2020).

In 1847, he formulated laws for calculating currents in complex electrical networks, known as Kirchhoff's laws. These laws can be formulated and solved using graphs, making them important tools for the analysis of electrical networks (Elements of graph theory, 2020).

Kirchhoff also studied graph theory in the context of the Traveling Salesman Problem, which is an important optimization problem and is one of the classical combinatorial optimization problems.

Consequently, the historical path of graph theory began in the 18th century with

the solution of the seven bridges problem of Königsberg by Leonard Euler. His work on the seven-bridge problem pioneered the use of graphs as a mathematical tool for modeling and solving practical problems. This work defined the basic concepts and methods of graph theory. In the 19th century, an important contribution was made by Gustav Theodor Kirchhoff and Gustav Robert Kirchhoff in the field of graph theory to solve the problems of electrical networks and heat transfer.

Conclusions. In the modern world, graph theory plays an important role in many fields, including computer science, telecommunications, computer science, social sciences and others. Graphs are used to model, analyze, and optimize various systems and problems. Applications of graph theory in computer science include solving path search problems, data structures, optimization, data analysis, and machine learning. Graphs have become an important tool for solving complex problems in these areas. Literature and research in the field of graph theory provide us with an opportunity to better understand the history and development of this field and find application in modern technology and science.

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PONOMARYOVA, Bohdana

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

TRAINING AFTER WAR AND IN PEACE

Ukraine, like many other countries, has faced difficulties in the education sector as a result of hostilities since 2022, so it will take a lot of effort and time to recover from the war and peacetime. The topic of education after the war and in peacetime in Ukraine is relevant and will remain so in the future. Training and education are important factors that can help close the gap and contribute to the country's development. Post-conflict education in Ukraine requires the introduction of new, innovative methods that will contribute to the effective education and development of the younger generation. One of these methods is interactive learning.

The purpose of the study is to analyse interactive forms and methods of teaching health education, to justify recommendations for conducting training sessions in health education classes in the post-war period.

Interactive learning is a special form of organising cognitive activity that has a specific goal: to create comfortable conditions for each student to feel successful and develop their intellectual potential.

In particular, studies show that after the introduction of these methods: students develop a culture of discussion and the ability to reach common decisions; communication and presentation skills improve; students perceive the learning material in more detail and in a more meaningful way; and the development of mental operations such as analysis, synthesis, generalisation and abstraction improves.

For interactive learning in times of peace and post-war period to be successful and properly organised, there are certain effective methods and tools.

Group-based interactive learning methods are one of the most common ways to implement interactive learning, as they contribute to the development of students' communication and social skills, and the formation of a culture of cooperation and teamwork. The essence of group interactive learning methods is that students work in groups, interact with each other and solve problems together.

The most common types of group interactive teaching methods are: “Discussion in a circle”, “Round table discussion”, “Project work”, “Role-playing games” and other types of group interactive teaching methods: “Brainstorming”, “Round table”, “Debate method”, “Social network”.

The frontal form of education is one of the most common teaching methods used in higher and secondary education institutions, so it is also appropriate in the post-war period. These methods allow students to actively engage in the learning process, share their thoughts, ideas, experiences and knowledge, which stimulates their motivation to learn and develops critical thinking.

The main types of frontal interactive teaching methods: Lectures with elements of discussion, Group work, Interactive lectures, Practical classes, Surveys and tests, Demonstrations and video shows. For example, the frontal interactive form of teaching is an effective method of teaching biology, as it allows the teacher to

actively interact with all students in the class at the same time and involve them in the learning process: when discussing the improvement of environmental conditions after military operations, or preparing projects related to the topic of improving human health and living conditions in times of peace, where various environmental problems, biological aspects can be discussed, etc.

Practice-oriented teaching methods are based on interaction between the student and the teacher, known as interactive methods. However, they require learners to be very independent in the learning process. These methods include exercises, laboratory, practical, graphic and research work.

Thus, based on the research, I found that post-war and peacetime education in Ukraine requires the introduction of innovative methods that will ensure effective learning and development of students. Interactive teaching methods are a powerful tool that promotes active participation of students, the development of their communication and critical skills, creative thinking and problem-solving. Therefore, first of all, it is necessary to activate students' mental activity, and this is possible with the help of various technologies, rational and optimal conditions for the implementation of pedagogical methods and techniques.

PROTOPOPOVA, Svitlana

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

PROJECT ACTIVITY IN SCHOOL EDUCATION

Purpose: To find out if education is possible during the war, name the possibilities of implementing project activities in education.

Results: War is always unpredictable. It became a real stress, both for parents with students, and for teachers, who had a hard time getting used to new realities. Under the conditions when almost all schools have switched to remote education mode, we have the opportunity to practice various methods of online learning.

One of these is the method of project activity. Recently, this method is gaining wider use. This ensures the development of students' cognitive skills, the ability to independently construct their knowledge and navigate in the information space, and the development of critical thinking.

A project is a special form of work that has a well-organized structure of its own from start to finish. Through a series of training exercises and creative tasks, students can achieve a real sense of creative success.

Project activities can be used in any lesson and in any class, but the choice of topic should be taking into account its practical significance for the student. The main thing is to formulate the problem that the students will work on while working on the topic.

Effective use of the project method requires significant training, which is carried out in a holistic system of school education. Schoolchildren must possess certain intellectual, creative and communicative skills.

The end result (product) of the project is extremely important and must be well planned. However, it should not be underestimated. Students are given the opportunity to create something personal and individual on their own, which fully reflects their own ideas, tastes and interests. Remote education is not an obstacle in this case, but on the contrary, thanks to digitalization, it opens up new opportunities for searching and processing information.

The main thing is the students' feeling of successful implementation of the completed work, positive motivation for active cognitive and research activities, improvement of educational skills and abilities, creative self-development of the individual.

Conclusion: The successful experience of project activities has a positive effect on the development of general educational competencies of students. helps to learn to make decisions and feel responsible for the work done. Students begin to develop the research and analytical skills they need to improve the quality of knowledge.

SAMODAY, Valentina<https://orcid.org/0000-0002-4043-5426>**RASTOVA, Katerina***A. S. Makarenko Sumy State Pedagogical University, Ukraine***PROBLEMS OF INCOME FORMATION OF UKRAINIANS FROM STATISTICS POSITIONS**

Based on analytical data, the incomes of communities have been and will continue to be variable and unstable. This is due to the factors of work and training. Securing the growth of the population's income in any country is one of the main directions of the state's policy, and not to mention the goodness of Ukraine as a whole.

In recent years, positive trends have emerged regarding the formation of population incomes. This is an important change in the level of life of the population of Ukraine compared to the level of life of the population of European powers. And at the same time, equalized with the countries of the European Union, the budget income of Ukraine per capita becomes 16% equaled with Poland, 14% - from the Czech Republic and even less 3% – from France and Germany.

The largest contributor to the population's income will be deprived of payment. If we assume that in Ukraine more than half of the population are hired workers, this situation can indicate a negative trend in the level of living of this part of the population, in the structure of income of which salary prevails This fee is reduced, especially for washing.

The average salary of Ukrainians is now 17,700 UAH. for a month. Among the great cities of Ukraine, the average salary in Kiev is 20,000 UAH.

In another place after Kiev, the amount of income was determined by several places, where on average they would pay 17,500 UAH.

The lowest salary in Ukraine is fixed in Sumy – in the middle here withdraw 13,000 UAH.

Table 1*Minimum salary for 2020-2023*

From the cob 2020	4723 UAH.
From September 1, 2020	5000 UAH.
From January 1, 2021	6000 UAH.
From July 1, 2021	6500 UAH.
In 2022	6700 UAH.
In 2023	7167 UAH.

<https://www.kmu.gov.ua/>

Regardless of the economic trends in the world, the difference in the income of the national income has become even more differentiated over the past decade.

Here is the minimum wage for 2020-2023 (Table 1) Thus, the growth of wages and the total income of the population, including pennies, as a result of which people

quickly drink, will change in for the population, do not allow insurance coverage for those in warehouses gradually transform into the main investor of the economy.

Table 2

Indicators of what to add to the income of the population

<https://www.kmu.gov.ua/>

Indicator	2022	2023
GDP	4,73 trillion UAH	6,26 trillion UAH
% of GDP to the previous year	68,0%	103,2%
Inflation	23,3%	28,0%
Average salary	14,0 thousands UAH	18,3 thousands UAH
Minimum salary for January 1	6,5 thousands UAH	6,7 thousands UAH
Dollar exchange rate (annual average)	22,3 UAH	42,2 UAH

Furthermore, in order to align the minimum wage in 2022 in hryvnias with the dollar, as indicated in Table 2 for the year 2023, there has been a shift in income by 200 UAH, along with a 10 UAH change in the exchange rate. This is deemed unacceptable for both the economy and humanity.

It is possible to develop this closed circle only by creating a mind for increasing incomes and protecting the population on the basis of solving the underlying problem - improving the income policy in Ukraine.

ROMANOVA, Oksana

<https://orcid.org/0000-0003-1816-7055>

National Academy of the National Guard of Ukraine, Ukraine

LEARNING IS ALWAYS NECESSARY

Quarantine and war have caused an even greater surge of problems in Ukrainian education. However, the education system has adapted quite well to the war.

After the war, the situation may change. First, all textbooks will finally be completely free from traces of Russian and Soviet heritage. Secondly, school curricula and higher education institution programs will become even more adapted to modern realities.

After the war, the Ukrainian education system will need to be rebuilt, reformed and innovated. Therefore, its quality should improve after the war.

As for distance education, it can become an example for other countries to follow. In general, distance education should become more interactive, engaging, and stimulating to deepen knowledge to give Ukrainian applicants competitive advantages in the world educational arena.

Unfortunately, distance learning is not perfect in wartime. It is affected by the lack of electricity, Internet access, and air raid alarms. Some of the learning material remains for self-study, which can worsen the quality of its assimilation and increase the workload on students. Despite the challenging working conditions and security challenges, teachers strive to adhere to the educational programs. To do this, they combine topics, reduce the amount of self-study assignments, and utilize asynchronous learning, such as providing video recordings of classes and educational materials on electronic platforms. Additionally, the quality of distance learning depends on the quality of the gadget used.

Higher education in modern society has an extremely important task - to form responsible and self-sufficient individuals who possess critical thinking and have protective immunity against numerous social myths. The personal level of intelligence today is measured not so much by the volume of acquired knowledge as by the level of constructive behavior strategies demonstrated in various types of conflict situations.

After the war, higher education will get a new life in Ukraine and will have a chance to keep a large number of young people in the country.

Military operations have become another impetus for changing the principles of the educational process. Once again, educators have realized that their strength now lies not in their ability to convey what students can readily access on YouTube or read on the Internet. Instead, their strength lies in their ability to support and ignite a passion for knowledge, to motivate, to help students discover their talents, and to become pillars of support. These skills have proven to be extremely necessary for young individuals during times of war, assisting students in picking themselves up and reclaiming what seemed lost forever. These skills will remain extremely important in the future.

I have no doubt that education will change after the war, just as society itself will change. It will demand a different kind of education.

SAIENKO, Nataliia

<https://orcid.org/0000-0001-7953-3747>

Kharkiv National Automobile and Highway University, Ukraine

THE USE OF DIGITAL TECHNOLOGIES IN TEACHING PHONETICS TO UNIVERSITY STUDENTS

Globalization of communication processes causes the need for competent specialists capable of effective intercultural communication in foreign languages.

A mandatory component of language competence is phonetic competence, which includes the ability to correctly perceive other languages and reproduce them according to existing norms.

Recently, the use of modern digital technologies has become an integral part of foreign language training. These are not only new technical means, but also innovative approaches to the organization of the educational process. Such transformations call for the need to find new approaches, forms and methods of teaching foreign languages in general, and phonetics, in particular.

The purpose of the study was to determine possible ways of using digital technologies to develop the phonetic competence of university students.

When teaching pronunciation, a number of approaches can be used, the most common of which are the articulatory, auditory and combined approaches.

The combined approach involves the use of both auditory and speech analyzers for the formation of phonetic skills, as well as graphic images of the target language.

We used the combined approach with the inclusion of elements of the author's methods when teaching phonetics to students of Kharkiv National Automobile and Highway University, which was based on a number of provisions of the translingual approach and audiovisual translation.

Translingual strategies were used to ensure the comprehensibility and transparency of the foreign text and to work out the appropriate language forms in the shortest possible time.

The material was presented in the form of videos posted on the YouTube platform, with a parallel translation of new words and texts voiced by the speaker and displayed on the screen. The material was listened to simultaneously with the visual support, repeated in pauses after the speaker, then in the classroom it was practiced and consolidated while performing tasks at a productive level.

Vocabulary and text memorization improved with each subsequent listening and repetition when students could fine-tune and hone their articulation and thus achieve a natural speaking speed.

This approach implements the idea of the "flipped classroom", the essence of which is that students learn new material on their own by watching videos and listening to them, while in the classroom they are involved in creative activities and solving problem tasks.

We consider the approach to teaching foreign languages with the use of audiovisual translation to be a promising area of research, as digital technologies and the Internet encourage active development of audiovisual software for self-education and personalized learning.

SCHERBAK, Alona*H.S. Skovoroda Kharkiv National Pedagogical University (Kharkiv, Ukraine)***LEARNING TO TEACH: IN WARTIME AND IN PEACETIME**

The **relevance** of the research topic goes beyond the boundaries defined by the subject and methodology of the article. Only the future will be able to give an epistemological and axiological assessment of the events that have taken place and are currently taking place in Ukraine, and there is no reason to hope that this assessment will be exhaustively accurate. The prospects of scientific research today are influenced by two understandable circumstances. First, the war is not over yet and its consequences will be felt for a long time. That is, regardless of the chosen methods, any scientist today is doomed to investigate an unfinished process with unpredictable dynamics. Secondly, the destruction of cultural objects (including scientific libraries), the stay of some students and teachers in the war zone, under shelling, in conditions of loss of communication and limited access to Internet resources, in addition, under the powerful deviant influence of the information-psychological components of modern war – does not contribute to the objective and complete fixation of data. The **goal** is to optimize pedagogy by summarizing teaching experience during the hot phase of an armed conflict; the **task** is to collect the relevant one's data, analyze. The start of the war on February 24, 2022, fundamentally changed the lives of each of us. For the first two weeks, we did not move away from the TV screens, did not let go of the phones, but gradually we came to understand that, despite everything, it is necessary to work and improve the educational process. Deans together with academic groups curators began to contact students, inquire about their fate, whereabouts, and compiled lists. It is clear that we had work experience, related to quarantine restrictions during the COVID-19 pandemic. Educational materials: *lectures, tasks for practical classes, questions for self-testing, manuals, presentations, control tests and other educational content are placed in the MOODLE system.* Taking into account the wishes of the students, the most convenient communication channels using modern electronic networks were chosen and separate groups were created in Telegram, Viber, WhatsApp, Discord, which allow live communication between all members of groups who are in the area where hostilities are going on and do not have constant access to internet. Students with specific diseases perform individual complexes according to the peculiarities of their health. In peacetime, there were many opportunities. Travel! In order to learn the program well and relax with classmates, you could go to historical places. Both teachers and students communicate well with each other, and we have developed a trusting relationship. In general, indeed, if there was a peaceful time, then it is necessary to pay attention to the contact between students – teachers, students – teachers. **Conclusions.** So, there are reasons to believe that the pandemic, despite the significant human and material losses that Ukraine suffered as a result of the outbreak of the coronavirus infection, to some extent contributed to the development of mechanisms for the implementation of educational activities in extreme conditions. This makes it possible to determine the field of further research on the problem of forming mechanisms of social resistance to various challenges and disasters. The preservation of the cultural and civilizational foundations of existence in the conditions of war with a nuclear state, which Ukraine demonstrated, gives reason to hope that humanity as such can effectively face dangerous challenges and global catastrophes.

SELKAN, Orhan Gazi

DAĞLI, Gökmen

ALTINAY, Fahriye

ALTINAY, Zehra

Near East University, TRNC

EVALUATION OF STRATEGIC PLANNING PRACTICES OF MANAGERS IN PRIMARY EDUCATION INSTITUTIONS

Changes that have taken place in our world since the second half of the 20th century have made change inevitable in educational institutions, which are the student factories of the countries.

The **aim** of the paper is to analyze evaluation of strategic planning practices of managers in primary education institutions.

Results: With the changes that have taken place, it has become essential to introduce new approaches in order to take precautions against the problems that educational institutions will encounter in the future, to catch up with the changes of the age and to make the right decisions for the future.

With the new steps taken in this direction, they have begun to attach importance to strategic planning in schools. In order to shed light on the situation of these changes in educational institutions in our country, the strategic planning practices of school administrators in primary education institutions located in rural Mesarya, were evaluated.

For this purpose, semi-structured interview questions were prepared to obtain the necessary data. The prepared questions were finalized by interviewing the experts and making a pilot application. As a sample, 5 administrators and 5 teachers in Mesarya rural area in TRNC were determined.

Conclusion: Content analysis was carried out on the data collected by face-to-face interview method. As a result of the research, it has been concluded that the principals and teachers working in the schools do not make strategic planning in the schools they are in. In the light of the results, it is recommended that administrators and teachers who lack information on this subject should receive in-service training.

SHAPOVAL, Serhii

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

INTERTEXTUALITY IN UKRAINIAN LITERATURE

Purpose: The current focus of scholarly investigation revolves around intertextuality in Ukrainian literature. However, the scope and intensity of this research differ, contingent upon the period of analysis and the individual researchers engaged.

The insufficient exploration of intertextuality as a phenomenon in Ukrainian literature is attributed to the prolonged impact of Soviet ideology, which prevented the exploration of intertextual connections.

Following Ukraine's attainment of independence and a shift in its political trajectory, there has been a notable upswing in the examination of intertextuality in Ukrainian literature.

Scholars and literary critics are directing heightened attention toward the utilization of quotations, allusions, and references to both biblical and classical works, as well as the incorporation of motifs and elements from other authors' works.

Additionally, literary scholars are delving into the intertextuality of Ukrainian literature within the broader framework of world literature.

Results: Valerian Polishchuk, a trailblazer in the exploration of intertextuality in Ukrainian literature, delineated four primary forms: citational, paradigmatic, semantic, and structural.

The citational form entails the direct quoting of a section from another author's text. In the paradigmatic form, the incorporation of images, motifs, or plot situations from other works takes center stage. The semantic form involves the utilization of thematic or symbolic connections between texts.

Lastly, the structural form encompasses the adoption of a compositional structure from another work. Therefore, intertextuality manifests in various forms and types, including:

- *Citational Intertextuality:* This involves incorporating direct quotations from other literary works into the text. These quotations may encompass poetic lines, character dialogue, or specific phrases that authors employ to underscore their thoughts or ideas.
- *Allusive Intertextuality:* In this form, allusions to other literary works or authors are woven into the text. These allusions can be overt or subtly embedded, assisting readers in grasping the deeper significance of the work.
- *Paradigmatic Intertextuality:* Here, the text adopts stylistic, linguistic, or genre elements characteristic of a particular literary direction or movement. This may encompass elements from folklore, romantic motifs, symbols, or the structural frameworks of specific genres.
- *Paradoxical Intertextuality:* This form involves utilizing contradictions or unexpected connections between different literary works, generating surprising effects or prompting new interpretations of familiar texts.

- *Metatextual Intertextuality*: In this type, the text refers to itself or the process of its creation. This can encompass authorial comments, and metaphorical or symbolic images that unveil the nature of the literary work.

Conclusions: Intertextuality emerges as a pivotal concept in contemporary literary studies, delving into the intricate relationships, interactions, and influences among texts. Ukrainian literature, distinguished by its unique characteristics, significantly contributes to the overarching exploration of intertextuality.

The identified forms and types serve to enhance Ukrainian literary texts, imparting depth and forging connections to other works or traditions. This, in turn, opens avenues for novel interpretations and a deeper understanding of the literary landscape.

SHAPOVALOV, Ivan

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

PECULIARITIES OF THE USE OF SYMBOLIC PROPER NAMES IN MODERN ENGLISH

English is now becoming an urgent need due to advancements in communication, technology, economic reforms, and politics that led to an increase in its everyday usage. This situation partly influenced my research topic selection. Furthermore, the emerging interest in onomastics within contemporary linguistics makes my work relevant.

The materials of newspaper texts are under investigation due to the high percentage of symbolic proper names used in the language of the press, which is essential to achieve a high level of informativeness.

Arsenal Football Club is a successful English football club from north London known as "The Gunners", and its identity is largely inspired by its nickname. The club's origins trace back to the Royal Arsenal armoury in Woolwich, where the workers founded the club.

The Royal Arsenal produced ammunition, weapons, and explosives and is also known as "The Gunners," the same nickname used for the Royal Artillery Regiment. The club's emblem features a cannon, and early versions of the club badge also included the inscription "The Gunners."

Arsenal Football Club's theme and name are related to weapons, as it was founded by workers from the Royal Arsenal Armouries in Woolwich. The club's coat of arms features a cannon, which has been a prominent feature since 1888 and was based on the coat of arms of the borough of Woolwich.

Despite moving to Highbury, Arsenal retained its name and iconography. The current badge features a single golden cannon pointing east, although variations have been used in the past. In the early 1920s, a horizontal cannon pointing west was widely used, inspired by the coat of arms of the gate tower of the Royal Arsenal.

Arsenal and its supporters are also referred to as "The Gooners", which is thought to be a variation of their original nickname. There is speculation that the alternative nickname has roots in hooliganism and among the "ultras", who were gangs of aggressive fans in British football during the 1970s and 1980s. However, the nickname has been reclaimed and no longer has any connotations of violence. This is an example of re-appropriation, reclamation, or re-signification, a cultural process where a group reclaims words or artefacts that were previously used in a derogatory way for that group.

"The Gunners" is a distinct nickname that is widely used to refer to Arsenal Football Club and its fans in the media and among football fans globally. The history of this nickname dates back to the 1800s and has persisted to the present day. It is a common identifier for Arsenal in football newspapers and magazines, and fans generally recognize it as the club's primary nickname.

Aim: To examine the use of symbolic proper names in modern English, with a focus on the London football club Arsenal.

Results:

- Arsenal Football Club's theme and name are related to weapons, as it was founded by workers from the Royal Arsenal Armouries in Woolwich.
- The club's coat of arms features a cannon, which has been a prominent feature since 1888 and was based on the coat of arms of the borough of Woolwich.
- Arsenal and its supporters are also referred to as “The Gooners”, which is thought to be a variation of their original nickname.
- “The Gunners” is a distinct nickname that is widely used to refer to Arsenal Football Club and its fans in the media and among football fans globally.

Conclusion: The use of symbolic proper names in modern English is prevalent, particularly in newspaper texts, where it is necessary to achieve a high level of informativeness. The case study of Arsenal Football Club demonstrates how a club's theme and name can be related to its origins and history, resulting in a distinct nickname that persists to the present day.

Additionally, the example of “The Gooners” highlights the process of re-appropriation or reclamation of derogatory terms or artefacts by a group.

SHARPILO, Anna

Pavlo Tychyna Uman State Pedagogical University, Ukraine

CREATING IMMERSIVE LANGUAGE LEARNING ENVIRONMENT IN THE ENGLISH CLASSROOM

The successful language learning in terms of a traditional classroom setting with its time limitations may seem to be a challenge for many EFL teachers. However, we can make the most of an average lesson for the learners' benefit by maximizing the use of the target language and creating immersive environment in the English classroom.

Purpose. The immersive language learning appears to be somewhat underemphasized within the framework of Ukrainian school education. I wish to illuminate this efficacious method in this context.

Results. The immersive learning can be regarded as a separate method for teaching languages. As a matter of fact, the revolutionary Direct Method is considered to be one of the pioneer approaches to introduce the idea of immersive language learning making the transition from conventional grammar-centric instruction to a more naturalist approach. Among other leading methods harnessing the potential of the immersion are Content-Based Language Instruction, Task-Based Language Teaching and Communicative Approach. The primary statement advocated by the proponents of immersive language learning is the significance of cultivating an educational environment within the classroom that is distinguished by substantial language exposure. This approach is essential to encourage learners to engage in the cognitive processes within the target language. Furthermore, it is posited as a positive strategy for mitigating the issue of L1 interference.

The most widely endorsed ways for establishing an immersive language learning environment include the following:

- Emphasizing the predominant use of the target language, for example for instructional purposes or negotiating the meaning;
- Providing continuous and consistent language exposure;
- Incorporating authentic materials;
- Adopting a learner-centered approach;
- Promoting communicative and interactive learning experiences;
- Implementing scaffolding techniques.

The benefits of immersive language teaching are multifaceted. Immersing learners in the language enhances language acquisition offering the opportunity to practice language in real-life situations; fosters increased engagement; improves speaking fluency; focuses on honing listening and speaking skills, areas learners find the most daunting; stimulates their cognitive processes; leads to the long-term retention of the information.

Conclusions. Nowadays, immersive language learning has gained widespread recognition and is commonly employed by private language schools. I hold the belief that this method has a potential to transform learners' attitude towards learning English and improves their proficiency. Consequently, it stands to reason that it should be incorporated into the curriculum of Ukrainian schools.

SHUMAKOVA, Olga

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

LEARNING AND TEACHING ENGLISH: IN CONDITIONS OF WAR AND PEACE

Learning and teaching English in schools during wartime and peacetime have different goals, but the goals and outcomes of English instruction are equally necessary in both situations. In this essay, we'll examine the aims and results of teaching English in schools during war and peace and draw a conclusion about the importance of English education in both scenarios.

The **purpose** of the study is to analyze aspects of teaching English during war is to allow students with a means of communication with the exterior world. English provides a universal speech that can bridge communication gaps and open doors to new opportunities. Additionally, learning English during war can assistance students perceive more connected to the world and proposal a sense of hope for a brighter future. On the other hand, the aim of teaching English during peace is to prepare students for a globalized world. English is the most widely spoken speech in the world, and being able to communicate effectively in English can open up countless opportunities for personal and professional growth. English proficiency is fundamental for success in many fields, including business, science, and technology. Thus, the aim of teaching English during peace is to equip students with the required skills to prosper in a globalized world.

The **results** of teaching English during war are twofold. Firstly, it provides students with a means of communication that can assistance them access resources and connect with people exterior the immediate area. Secondly, it offers a sense of hope and a pathway to a brighter future. Learning English can assistance students perceive more connected to the world and allow a sense of optimism in times of turmoil. Similarly, the results of teaching English during peace are also twofold. Firstly, it equips students with the required skills to prosper in a globalized world. Being proficient in English can open up countless opportunities for personal and professional growth. Secondly, it offers a sense of empowerment and confidence to navigate the complexities of the modern world.

In **conclusion**, learning and teaching English at schools during war and peace have different challenges, but the aims and results of English education are equally necessary in both situations. During war, learning English provides a means of communication and offers hope for a brighter future. During peace, learning English prepares students for success in a globalized world and offers a sense of empowerment.

SINANAJ, Glodiana

*Scientific Research Centre for Public Health, University of
Vlore "Ismail Qemali", Albania*

HOW DO WORKPLACE WELLNESS PROGRAMS SERVE AS A PRACTICAL WAY TO ENCOURAGE HEALTHY BEHAVIOR

Every year, unhealthy behaviors and chronic conditions cost employers billion \$ in lost workdays, highlighting the increasing need for wellness in the workplace. Wellness programs, which include wellness activities and associated incentives or rewards, wellness coaching services, and biometric health screenings, provide a means for employers of all sizes to drive engagement among employees and encourage healthy behaviors.

Purpose: Therefore, the purpose of this review study is to provide an overview of the inclusion of wellness programs in the workplace as an effective practice to promote healthy behavior. This is a literature review that includes researches conducted in Google Scholar, PubMed, Medline databases. Respecting the inclusion criteria, 19 articles were reviewed.

Results: The findings reveals wellness program is comprised of multiple solutions depending on how an organization or department defines wellness, but the most common components include nutrition, wellness coaching, and wellness program management.

These are often complemented by other healthcare offerings like condition management, biometric screenings, behavioral health, fitness, and a digital wellbeing and engagement platform. This evidence-based approach helps prevent, treat, and even reverse disease by replacing unhealthy behaviors with positive ones.

Conclusions: The solutions improve overall health and wellness, reduce or eliminate the need for medications and procedures, and encourage members to take a proactive role in their wellbeing.

SMILA, Alina

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE USE OF FOLKLORE AND ETHNOGRAPHIC MOTIFS IN THE WORKS OF THE “UKRAINIAN ART MOVEMENT”

Purpose: The Second World War triggered a crisis in the development of Ukrainian literature. The Bolshevik occupation of Volyn and Halychyna led to the destruction of all publications in these regions, and the majority of critics and writers were compelled to emigrate. During the German occupation, the establishment and operation of various literary groups and organizations in Ukrainian lands were prohibited, with the exception of the Union of Writers and Journalists, which had a branch in Lviv.

Results: In an effort to support and advance the Ukrainian language and culture away from their homeland, representatives of the Ukrainian intelligentsia in emigration sought to unite artistic forces. Consequently, in September 1945, the literary association of Ukrainian Writers in Exile – “Artistic Ukrainian Movement” («Mystetskyi ukrainskyi rukh») – was founded in Fürth, Germany. Its mission was to serve the Ukrainian people in a highly artistic and refined manner, rejecting anything antagonistic to the Ukrainian idea.

A distinctive creative approach involving the use of folklore and ethnographic elements is evident in the artistic realm of the “Artistic Ukrainian Movement” («Mystetskyi ukrainskyi rukh»), an organization of Ukrainian writers living in displaced persons camps in German emigration during the 1940s. That organization brought together writers with diverse perspectives on the future of Ukrainian literature. The organization primarily engaged in discussions about the modernization of Ukrainian culture and its correlation with global trends.

Members of the “Artistic Ukrainian Movement” understood that their foremost task was to portray Ukraine artistically, reflecting its spirituality across the past, present, and future. The organization aimed to emphasize, sharpen, and enrich various artistic styles and directions by uniting artists with differing views. The central objective was to assert freedom in ideas and expression, advocating for a complete creative expression of the individual. Political involvement was categorically rejected; literature was expected to transcend political servitude. These aspects of Ukrainian art still remain relevant today. In literary-critical article “Not for Childre”, Yu. Sherekh identified three stylistic currents (traditional, modern, and avant-garde) in Ukrainian emigration literature, singling out T. Osmachka, Yurii Klen and I. Bahrianyi as notable representatives.

Conclusions: The literary process of the 20th century in Ukraine, both in the 1920s and 1930s and in emigration, was marked by a continuation of modernist exploration from the early century. It involved lively debates about formal and substantive features, aesthetic, philosophical, ideological, and political orientations, as well as the directions and goals of Ukrainian literature, that constantly self-identifies itself within European culture, often emphasizing the roots of Ukrainian folk works, notably evident in the texts of T. Osmachka.

SOBCHENKO, Tetiana

<http://orcid.org/0000-0002-9213-5556>

KYRYLENKO, Sergiy

<https://orcid.org/0009-0000-5156-0217>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

SOME ISSUES OF OVERCOMING EDUCATIONAL LOSSES OF HIGHER EDUCATION STUDENTS IN UKRAINE

Objective. To identify the main areas of work of higher education institutions of Ukraine to overcome the educational losses of students in the context of the transformation of education and science.

Results. The situation in Ukraine, due to the imposition of martial law since February 2022, has led to significant educational losses for students of all levels of education, including higher education students. The temporary suspension of the educational process at the beginning of the invasion of the Russian occupation forces, partially or completely destroyed higher education institutions, forced internal and external displacement of Ukrainian citizens, the resumption of the educational process in mixed and distance learning, etc. are the factors that have significantly affected the emergence of gaps in the learning outcomes of students of domestic higher education institutions. Universities face the primary task of compensating for the losses in students' learning outcomes and organising the process of quality education provision in the context of the transformation of education and science in Ukraine.

Conclusions. The study allows us to conclude that the effective overcoming of educational losses of applicants of domestic higher education institutions will be facilitated by ensuring

- formation of the value and personal attitude of future specialists to the acquisition of professional competences, to the field of activity, as well as awareness of conscious responsibility for their actions;
- improving the information and digital literacy of all participants in the educational process;
- taking into account the requirements for the effective organisation of the educational process in distance and blended learning, assessing the level of educational losses of higher education students;
- development of an integrated system of educational assessments and a programme (plan, algorithm) of actions to overcome educational losses;
- creation of safe conditions for the organisation of the educational process in accordance with the Concept of Security of Educational Institutions both during the introduction of martial law and after its termination.

SOLOSHENKO-ZADNIPROVSKA, Nataliia

<https://orcid.org/0000-0002-4721-8336>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE ROLE OF INTERNET RESOURCES IN THE FORMATION OF LISTENING SKILLS (within distance learning)

The development of listening skills in foreign language teaching is the most complex aspect, influenced by various factors, including language peculiarities, context, language materials, the individuality of the speaker, and the recipient. Listening is crucial for learning vocabulary, grammar, and developing language comprehension, including the sound aspect.

A lack of auditory competence makes it challenging to understand foreign speech, especially when interacting with native speakers. Limited hours and distance learning further complicate the development of this competency, making it important to support students' independent work using Internet resources (Soloshenko-Zadniprovska, 2021).

The **aim** of the presented paper is to explore the potential and role of Internet resources in developing listening skills for students in non-language specialties.

Results.

1. The TED.com website is an online platform featuring video recordings of conferences and speeches by experts in various fields. The videos include subtitles and provide an engaging resource for teaching listening skills. An effective approach to using this resource may involve watching without subtitles initially, then watching again with subtitles while discussing the content, followed by lexical and grammatical testing and exercises.

This approach promotes the development of listening skills, stimulates oral and speech activities, and supports student motivation. *TED.com* covers a wide range of topics that can be of interest to individuals pursuing various fields of study (Четверик, 2023).

2. The Podcasts section on the BBC Sounds website features English-language podcasts and radio stations covering various topics. This resource offers an opportunity to immerse yourself in an authentic English-speaking environment.

The absence of subtitles promotes the activation of grammatical and lexical knowledge while introducing the prosodic elements of the language, which are important for the development of listening skills. This resource is valuable and effective for developing listening skills, expanding vocabulary, and preparing for English-speaking conversations.

3. Watching movies and series on streaming services can be a highly effective method for learning a foreign language, particularly for developing listening comprehension.

This approach aligns with the principle of *visuality*, as it activates all aspects of speech activity during viewing, contributing to a better perception and understanding of language material.

Such authentic materials provide examples of norms of communication and behavior, revealing different speech styles, and demonstrating how language

elements interact with facial expressions and gestures. This helps foreign language learners to better understand context and learn the language in real-life situations.

Conclusions. Online resources expand learning opportunities by providing access to a diverse range of authentic materials. They allow learners to adapt their language learning process to their schedules and individual needs. These materials are both interesting and informative for individuals from various specialties, aligning with modern societal trends.

Such resources help develop foreign language communicative competence and acquaint learners with language patterns and native speakers' culture. Internet resources create an immersive atmosphere in an authentic language environment, contributing to skill improvement and boosting learners' motivation to acquire the language.

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SOROKA, Olena

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

LEARNING AND TEACHING: After War and in Peace

***“Ukraine is eternity, not only today, but
above all the future and the past”***

Yaroslav Stetsko

Ukrainians believe in victory and education plans as this is something that impresses our “Western” associates who provide us with support. We keep working on consensus, outstanding educational platforms and new post-war Ukraine in each area and sphere. Our educators face a great challenge: they need to upgrade the whole system, using the best practices of western colleagues without losing our own positive aspects we have.

Due to the war in Ukraine, hundreds of thousands Ukrainian children are now studying in European schools. However, as soon as the war is over, Ukrainian children will return home. Therefore, another question arises: what can we do to make it better? After all, our educational system is not perfect, it has many positive practices, based on a concept of respect for students and as far as we know everyone gets used to good things very quickly.

Accordingly, it is crucial to ensure that Ukrainian schools are effected by the educational reform for real and not just on paper. In such case it will only increase the quality and scope of education, and along with a help of our teachers, volunteers and organizations like “UNICEF”, this will bring our country to even higher levels. We will strengthen the support of our pupils and be motivated to go further and develop rapidly by creating better conditions for it.

Special attention is given to children with extra-needs. Before the full-scale war, an inclusive education was implemented in our country which was a significant step forward as such kids could feel more confident. Because of known circumstances distant online education has become a priority, so the process of educating children with intellectual disabilities is now disrupted. The level of studying is decreasing, so these children no longer feel as a part of a team.

To sum up, the following conclusions can be made:

- The educational sphere will become swift and effective through a military rebuilding.
- The quality of education will be improved, as Ukrainian educators keep upgrading our educational system even now. So once the war is over, all people will be determined to rebuild Ukraine as fast as possible.
- Children with special needs in education will be on peak of support, since unfortunately the number of psychologically injured children will increase because of the war.
- We are a great example to the world, because our people have shown how strong we are as a nation, that will never give up and keep our heads up.

STRIUK, Natalia

<https://orcid.org/0000-0002-5857-6120>

Vasyl' Stus Donetsk National University, Ukraine

SPEECH GENRES AS A REFLECTION OF SOCIOCULTURAL REALITY

Purpose. The study of speech genres is one of the most relevant in modern anthropo- and communicatively (pragmatically) oriented linguistics. The range of the study of speech genres extends to very diverse statements and utterances, which include short lines used in everyday dialogues, stories, military commands, orders, business documents, and public speeches, as well as all literary genres. Accordingly, the purpose of the research is to generalize approaches to the interpretation of the concept of speech genre and outline the possibility of studying sociocultural changes through the prism of this linguistic phenomenon.

Results. The diversity of speech genres and the blurring criteria for their definition explain the existence of a large number of approaches to the interpretation of this communicative and discursive phenomenon. In system-functional linguistics speech genres are defined as constructs that are determined by a social goal, and reflect staged, purposeful social processes (J. Martin). Within the framework of applied linguistics, a significant genre-creating factor is the communicative purpose (J. Swales, V. Bhatia).

In Ukrainian linguistics, there is an opinion that speech genres are the verbal and symbolic embodiment of typical situations of social, psychological, and cultural interaction of people (F. Batzevych). Modern Polish scientists emphasize the significant role of speech genres in human communication. In their opinion, history, public and even private life consist largely of speech genres (A. Wierzbicka).

Since a speech genre is a process of social-communicative interaction of people realized in textual form, it is a rather capacious category, and genre samples usually function as flexible schemes (M. Wojtak). Although genres are identified based on generalized features, they are constantly evolving, and changing, often functioning in hybrid, mixed and embedded forms (V. Bhatia).

New speech genres appear on a fundamentally new communicative, cultural, situational basis, for example, brought to life by new technical possibilities or, conversely, limitations: genres of Internet communication (likes in social networks, communication in messengers, online games, chats, comments, etc.), filling out online applications and questionnaires (purchases of goods in online stores, signing protest petitions, etc.), new kinds of advertisements, various inscriptions on clothing, bags and crockery.

Conclusions. Rapid, sometimes radical changes in society contribute to the emergence of new speech genres, the study of which can be considered as the prospects for further research.

SUKHITSKA, Anastasiia

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

DEVELOPMENT OF INFORMATION COMPETENCE OF STUDENTS THROUGH OPTIMAL COMBINATION OF PRODUCTIVE METHODS AND METHODS OF CHEMISTRY TEACHING

The **aim** of this paper is to analyze the development of information competence of students through optimal combination of productive methods and methods of chemistry teaching.

Results. Personal-oriented education – this is a way of organization of education, in the process of which the opportunities and abilities of students are identified and also created the necessary conditions for the development of their individual abilities.

The main goal of the work is to improve on the quality of teaching chemistry in the lyceum based on the optimal combination of methods and means of teaching students; development and implementation of a system of chemistry lessons based on the principles of personal-oriented learning; development of creative thinking and the ability to apply knowledge in the practical activities.

The relevance of the publication lies in summarizing of the experience of working as a biology and chemistry teacher in the conditions of online education. In my work, based on a person-oriented education system, I widely use both traditional methods and innovative learning technologies when teaching biology and chemistry: person-oriented learning, explanatory and illustrative tools, research works, problem-based learning, interactive technologies, project method, multimedia, information and communication technologies.

Multimedia presentations, created by me and also my students, help to process a large amount of material, summarize it, diversify the forms of work in the lesson, involve students in creative practical work.

Systematic work with the Internet is developing the competences necessary for searching the information in conditions of comprehensive computerization. Mainly three programs are used, when studying chemistry: “Virtual chemistry laboratory for general educational institutions grades 8-11”, “Organic chemistry for general educational institutions 10-11 grades”, “Chemistry 9th grade”. As a practice has shown, they ensure higher learning efficiency, develop interest in the learning subject, activate the mental activity of students, visualize the educational material.

Virtual laboratories make it possible to compensate to some extent for the absence of offline laboratory work. I am convinced that in such lessons, where the student works actively and enthusiastically, children develop curiosity and cognitive interest.

- A graduate of a modern school who will live and work in the new millennium must possess certain qualities, including:
- independently acquire the necessary knowledge,
- skillfully apply them in practice for solving urgent problems;

- think critically, be able to see the difficulties and find the ways to overcome them;
- competently work with information;
- be communicative, contact in various social groups;
- to work independently on the development of own intelligence, cultural and moral level.
- be able to assess own abilities and effectively implement them.

Conclusions. Therefore, the use of multimedia aids, chemical experiment stimulators, chemical structure modelling programs in the educational process creates favorable conditions for the development of students' cognitive interest, increasing the quality of knowledge, diversification and saturation of the learning process, significantly increases motivation, helps to reveal the creative abilities of students, contributes to the formation of self-education competence and self-development.

SUKHOVETSKA, Svitlana

<http://orcid.org/0000-0001-7749-6399>

Zhytomyr Polytechnic State University, Ukraine

THE USE OF CLIL IN ESP LEARNING

Objective: The abstract explores the application of modern content and language integrated learning (CLIL) methodology in ESP teaching at higher education institutions. It investigates the advantages and challenges of CLIL integration in ESP contexts and identifies effective implementation strategies.

Results: The changes in the country's economic, political, social, and cultural landscape necessitate effective student learning and preparation for future professional endeavors. The professionalization of foreign language education aims to train learners to use a foreign language as a tool for professional activities and knowledge acquisition. The CLIL methodology, according to many researchers, accelerates and enhances this process. CLIL is based on two simultaneous components: the subject discipline and the foreign language, offering opportunities for synchronous teaching and learning. The use of CLIL holds great potential for holistic skill development, content-language integration, and the creation of authentic learning contexts.

Surveying participants in the learning process, conducting questionnaires, and classroom observations provide insights into the effectiveness of CLIL methods in ESP courses. Implementing CLIL in ESP contributes to improved language skills, interdisciplinary skill development, enhanced subject comprehension, and ultimately increases students' competitiveness.

The theory of integrated content and language learning is anchored in the 4 «C» principles developed by S. J. Cowley: Content, Communication, Cognition, and Culture. Applying CLIL to education and ESP curriculum design requires adopting interdisciplinary integration approaches and models, including creating interdisciplinary pedagogical teams, developing specialized courses taught in a foreign language, and developing interdisciplinary themes and projects. Close collaboration between language and subject instructors, joint seminars, webinars, and cooperation with curriculum developers for alignment can facilitate the process.

Successful CLIL implementation necessitates the use of authentic learning materials and a considerable degree of social interaction between teachers and students. A multicultural environment, creative thinking development, and active teacher support in the learning process are important.

Conclusions: The conclusions drawn indicate the promising prospects of applying CLIL methodology in ESP education. This approach holds significant potential for combining language learning with specialized content comprehension. The student's improvement in foreign language skills aligns with the development of skills for professional communication which, in its turn, increases their competitiveness on the labor market. A notable advantage is that, within the framework of integrated content and language learning, no extra time is needed for foreign language study, as it occurs within the context of other disciplines.

SUSLICHENKO, Kateryna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

USING THE OPPORTUNITIES OF SOCIAL NETWORKS IN MASTERING MATHEMATICAL COMPETENCE IN SCHOOL

Modern education aims at the developing of a comprehensively developed personality, which will be able to constantly improve itself in the 21st century. It is mathematical education that contributes to the development of logical thinking, memory, attention, imagination, deductive and inductive thinking, forms the ability to analyze, draw analogies, generalize and draw conclusions. Therefore, the developing of mathematical competence of schoolchildren is relevant.

Mathematics is perceived by children as a boring and uninteresting subject. Therefore, teachers in schools are actively searching for effective forms and methods of teaching mathematics that will arouse interest in this science.

The world of information and communication technologies and the Internet have already become part of everyday life. However, social networks are practically not used in the educational process, so this issue is relevant.

The analysis of previous studies shows that a lot of attention is paid to the problems of using social networks in the field of education. The possibility of introducing social networks into the educational space attracted the attention of a number of scientists, in particular: Kuchakovska, Nesterenko, Tyshkova, & Radchenko.

Today, such social networks and messengers as: Instagram, Tik-Tok, YouTube, Telegram and Facebook are particularly popular among schoolchildren. The use of such social networks in the educational process promotes the exchange of information, increases motivation in educational activities, stimulates the development of creative abilities and cognitive interest.

So, for example, in the Telegram network, the main sources of information are educational information channels and bots, which can be configured in the form of a personal math tutor who will respond around the clock. There is also an opportunity to run your own blog and create a closed group for communication and exchange of information resources, for example, mathematical curiosities.

Yatsyshyn suggests using the Facebook social network for group training; self-education; internal school training (use for the purpose of informing about the functioning of the educational institution and related activities).

Meanwhile, the Tik-Tok platform and YouTube provide video content: by making a video with an interesting presentation about mathematical facts, rules or theorems, you can greatly interest children. The Instagram network can be used to host math quizzes in the format of Stories, which can only be viewed for 24 hours. For example, a competition can serve as a motivation for educational and cognitive activity: whoever passes the quiz faster will receive an additional point. Also, this platform can be used for blogging, information sharing and as a means of communication.

Social networks can significantly increase communication opportunities, interest listeners and promote their more active participation in the educational process. Thus, social networks have a huge potential in forming the cognitive skills of schoolchildren during their mastery of mathematical competence.

SVYSIUK, Olena

<http://orcid.org/0000-0002-2775-588X>

Zhytomyr Polytechnic State University, Ukraine

CHALLENGES FOR EDUCATORS IN THE POSTWAR PERIOD

Introduction. The full-scale invasion of the Russian Federation influenced and made certain adjustments to the further functioning of various enterprises and organizations in all branches of the country's economy in general and the education system in particular. It is obvious that all the society's problems and needs of a particular period of its development are reflected in the education system.

Educational process during the war. The results of the study on the quality of the educational process organization in the conditions of war in 2022/2023 academic year, conducted by the State Service of Education Quality of Ukraine assisted by the project “Supporting Ukraine's Government Reforms”, indicate that one-third of learners did not have full access to the educational process due to the war. Frequent power outage and lack of technical capacities are considered to be among key factors that affected the quality of the educational process. Meanwhile, the educational process can hardly be conducted without the use of digital technologies in the conditions of distance learning which our educational establishments were forced to transit for providing the educational process. Since the use of digital technologies is an extremely influential factor in reaching successful results in youth education. Conducting classes via Google Meet enabled the teachers to create a quality learning environment and provide learning material in various interesting formats starting with PowerPoint presentations and freely available video lessons for those who did not manage to attend the online class and ending with captivating videos accompanied by tasks to check the understanding of the content and context as well as useful links to various educational sites that empower learners to find and process additional information on the topic provided by the discipline curriculum.

Conclusions. The psycho-emotional state of all participants in the educational process has undergone significant changes during the war period, therefore one of the primary challenges and tasks facing educators is correcting their emotional state and overcoming a rather high level of anxiety and insecurity. In fact, this state of anxiety and instability is often the root cause of students' lack of motivation and self-discipline. The change in the form of obtaining education, the use of distance and mixed learning, unstable conditions of the educational process organization are those factors that affected the educational process as a whole as well as results of student education. Therefore, the main teachers' task is to maintain the effectiveness of the educational process. Despite the fact that the war is destructive in its origin, it became a turning point and contributed significantly to the reviewing principles and methods of teaching and gave an impetus for teaching process alterations. The main teachers' task today is not only the mere transmission of information. The teachers' assignment nowadays is to become a coach or a facilitator able to motivate students to enrich their knowledge. Yet another teachers' task is to find and successfully apply in their professional experience such technologies, tools and forms of organizing educational activities that will really assist future specialists in becoming competitive in the world labour market.

TARAB, Kateryna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE DIFFICULTIES OF TEACHING ENGLISH TO UKRAINIAN REFUGEE STUDENTS IN SWEDEN

Aim of the study:

The purpose of this study is to explore and detail the challenges encountered in teaching English to Ukrainian refugee students aged 7-14 in Swedish schools. Given the backdrop of the Russian invasion of Ukraine and the refugee crisis, the study aims to identify the linguistic, cultural, psychological, and systemic difficulties faced by educators, students, and their families in the process of English language acquisition.

By shedding light on these challenges, this study seeks to inform and enhance pedagogical practices, educational policies, and support systems, to improve the English learning experience for Ukrainian refugee students in Sweden.

Results of the study: the main ones.

1. Linguistic Difficulties:

- *Differences in English, Swedish, and Ukrainian language structures and pronunciation.*
- Learning in a multilingual environment with limited prior English exposure.

2. Psychological Difficulties:

- *Trauma and stress from war-related experiences.*

3. Systemic Difficulties:

- *Lack of resources such as trained teachers, teaching materials, and support services.*

Conclusion of the study:

The task of teaching English to Ukrainian pupils who have fled to Sweden due to war is undoubtedly challenging, but with a scientifically sound approach, it is far from impossible.

Providing students with language education not only equips these children with vital language skills, but it also plays a significant role in their healing and integration into their new society. The experiences and findings from this article can also serve as valuable insights for other regions facing similar situations.

TKACHENKO, Victoria

<https://orcid.org/0000-0001-7794-3136>

*Mykolaiv Law Vocational College of National University
"Odesa Law Academy", Ukraine*

USING GOOGLE JAMBOARD WHEN STUDYING THE TOPIC "LEXICOLOGY"

Remote education requires constant expansion of learning tools to ensure a full-fledged educational process. Online board Google Jamboard is a free service that is used during online conferences for the demonstration of materials and joint online work with students. The **purpose** of the study is to show the possibilities of using the online Google Jamboard when studying the topic "Lexicology".

Results. The Google Jamboard contains a significant number of tools (pen, eraser, cursor, notes, forms, the function of adding a picture, a laser pointer). You can also choose the appropriate colour scheme for text, notes and stickers, change the background. All elements are movable. They can be placed on any part of the board. It is possible to create copies of the assignment for each student. Thus, students do the tasks independently and do not have the opportunity to immediately see the results of their classmates.

During the theoretical study of the topic "Lexicology", the teacher has the opportunity to schematically write down the main theses, examples, transcription and translation of words on the online board while explaining new material. Google Jamboard is an effective tool for practicing and testing. With the help of "Add a picture" you can perform the following tasks:

- write in words what you see in the picture;
- match the word with the picture.

Using "pen" and "note" services give the opportunity to check the spelling of words. Examples:

- a teacher dictates the words, and students write them down on the board;
- correct mistakes in words;
- transcriptions are written on the board, write down the words and the translation;
- put the words into columns by topic.

Another way of checking the vocabulary and spelling can be "Crossword". Students answer the questions and write the correct answers in the cells of the crossword puzzle.

Also, it is advisable to use this service to expand students' vocabulary: students have to add synonyms and antonyms to the given words or cross out the extra one from the list of synonymous range.

Conclusions. Using online Google Jamboard provides an opportunity to study the material comprehensively: visually explaining new topics, practicing in real time, consolidating the acquired knowledge by working in groups or independently, and to hold discussions during the classes.

TSIKALO, Daria

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

PECULIARITIES OF DEVELOPMENT STUDENTS' INFORMATION AND COMMUNICATION COMPETENCE DURING A VIRTUAL CHEMICAL EXPERIMENT

The **aim** of this paper is to analyze the peculiarities of development students' information and communication competence during a virtual chemical experiment.

Results. The development of information culture and information communication skills of students is a priority for the modern Ukrainian education system. Article 12 of the Law of Ukraine "On Education" (dated 05.09.2017) states that the purpose of complete general secondary education is the comprehensive development, training, and socialization of a personality capable of living in society and interacting with natural civilization, with a vital desire for self-improvement and training to prepare for conscious life choices and self-realization, responsibility, work, and citizenship.

Information and communication skills are an integral part of modern life and education. Education includes the skills of using information technology, the ability to quickly find the necessary information and communicate effectively with others. Developing these skills is an important task for any modern educational institution. An important factor in the formation of students' information and communication competence is the development of critical thinking and self-esteem. The ability to analyze information and assess its reliability and draw appropriate conclusions based on scientific data and evidence.

One of the ways to develop information and communication competence is to use a virtual chemical experiment as a teaching tool. Chemical experiments give students the opportunity to practically apply their theoretical knowledge of chemistry and investigate various processes and phenomena. At the same time, the use of modern information and communication technologies makes the learning process more efficient and exciting.

The use of virtual laboratories during the educational process in chemistry leads to the development of information and communication competence - the ability to receive, understand, process and use information from various sources [2]. When conducting chemical experiments, students have the opportunity to interact with each other and the teacher, exchange ideas and opinions, share knowledge and experience. This contributes to the development of communication skills and the ability to cooperate effectively.

In the process of conducting a chemical experiment, students gain experience in teamwork and develop communication skills. In addition, they learn how to correctly formulate and present the results of the experiment in written and oral form, as well as to design them using digital technologies.

The development of information and communication competence in students during virtual chemical experiments is possible only with the constant use of online laboratories, simulators, the content of which corresponds to the school

curriculum in chemistry and allows students to directly perform simulations, not just watch demonstrations.

It should be noted that an important point is the direct interest of chemistry teachers in the latest online resources, so a necessary component of the work of a modern teacher is to monitor the available online resources with free access and develop the ability to work with them, get acquainted with new chemistry software and develop skills in creating their own didactic electronic resources that can make the lesson more interesting, contribute to the activation of students' cognitive activity, develop their independence in the learning process, strengthen positive motivation, and enhance the ability to learn.

Conclusions. To summarize, we can say that the formation of students' information and communication competence in chemical experiments is an important component of modern education. The use of modern online virtual laboratories makes the learning process more modern, stimulating and effective. It is important to teach students how to use electronic information resources that will help them to learn the subject better, understand complex processes and the possibilities of their analysis, and thus develop the ability to work with information presented in different forms.

TSYBA, Myroslava

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

**EXPLORING THE SPECIFICITY OF THE HISTORICAL NOVEL
GENRE IN UKRAINIAN LITERATURE: A COMPARATIVE
ANALYSIS OF K. POLISHCHUK'S "OTAMAN ZELENYY" AND A.
KOKOTIUKHA'S "THE CASE OF OTAMAN ZELENYY"**

Purpose: The Ukrainian historical novel has a history spanning more than a century and a half. The works of Panteleimon Kulish, Ivan Nechui-Levytskyi, Mykhailo Starytskyi, Bohdan Lepkyi, Ulas Samchuk, Pavlo Zahrebelnyi, Ivan Bilyk, Vasyl Shkliar, Roman Ivanchuk, Yurii Vynnychuk, and many others have become real masterpieces of historical prose. Throughout the evolution of literature, the historical novel underwent significant updates to its canons, leading to radical modifications. However, it remains one of the most popular genres of novels. Today, there are two convincing typologies of historical prose proposed by S. Andrusiv and D. Peshorda. S. Andrusiv categorizes it into three types: historical-artistic, artistic-historical, and historical artistic-documentary works. On the other hand, D. Peshorda introduces a thesis suggesting the existence of four types of historical novels: classic, romantic, modern, and postmodern.

Results: Despite sharing a common historical theme, Klym Polishchuk's novel "Otaman Zelenyi" and Andrii Kokotiukha's "The Case of Otaman Zelenyi" distinguish themselves through various semantic and ideological components. Specifically:

- *Interpretation of the main character:* In Klym Polishchuk's novel, the main character Danylo Terpylo is portrayed as an idealized-romantic character. Conversely, Andrii Kokotiukha focuses on the figure of Andrii Sheremet, presenting him in a critical-realistic mode.
- *Historiosophical position:* The authors address a key problem of the time, the village/city conflict, in different ways. "Otaman Zelenyi" emphasizes class over urbanization in the conflict, while in Kokotiukha's work, Zelenivites perceive the intelligentsia as the lordship.
- *Political position:* Klym Polishchuk's novel reflects a clear national-socialist perspective. Andrii Kokotiukha's work, on the other hand, demonstrates national-democratic views and a distinct perception of history.
- *Influence of personality on the course of history:* In Klym Polishchuk's version, the influence of individual personalities on the course of history is considered insignificant. Conversely, Andrii Kokotiukha's version places significant emphasis on the impact of individual personalities on historical events.

Conclusions: The transformation of the historical novel genre in the works of K. Polishchuk and A. Kokotiukha is associated with a complex set of reasons, the key ones being the temporal distance between the writing of the works and the differences in the "point of observation" of the authors. Klym Polishchuk consistently wrote from the midst of the events, and addressing an audience for whom these events and issues were relevant. On the other hand, A. Kokotiukha exists in a different temporal context, where the events of the text function in a mode of post-reflection. The target audience for this author comprises individuals from the 21st century who identify with the characters and contemplate the events as a conditional (fictional) situation. These factors determine the distinct characteristics of each author's writing style.

TVERDOKHLIEBOVA, Natalia

<https://orcid.org/0000-0003-3139-4308>

KALINICHENKO, Viktoria

National Technical University «Kharkiv Polytechnic Institute», Ukraine

THE ROLE OF PSYCHOLOGICAL SERVICES DURING THE WAR IN UKRAINE

In times of a full-scale invasion of the Ukraine territory by the Russian aggressor, it is necessary to pay attention to the issues of psychological support of the educational process, which is of great importance for ensuring the psychological well-being of students and teachers. The purpose of the paper is to formulate the directions of psychological support for participants in the educational process during the war.

Psychological support for students. Psychologists conduct individual and group sessions that promote the development of skills to organize emotions, maintain emotional stability, master stress management strategies, and understand their own needs and capabilities, helping them to maintain academic motivation and focus.

Psychological support for victims who have witnessed or directly participated in traumatic events. Psychologists conduct individual and group counseling sessions with those who have experienced difficult war events and traumatic situations, who have been under occupation and lost their relatives, work with stress reactions, traumatic memories and other consequences of war to ensure post-traumatic development. They help people to process traumatic experiences, find ways to overcome stress, recover from trauma, and build a new life.

Adaptation of educational programs. Psychologists collaborate with teachers and administrators to develop adapted curricula that take into account the specifics of the learning process in a military setting. This may include the use of artificial intelligence tools, creative methods, interactive learning, or changes in assessment to reduce stress and create optimal learning conditions.

Developing stress-resistance reserves for all participants in the educational process. Psychologists conduct trainings and seminars aimed at developing stress resistance, personal and psychological reserves of students and teachers in a military environment. This may include training to improve self-education capabilities, develop trust and communication skills, exercises and techniques to enhance self-regulation, develop positive thinking, and ensure emotional well-being.

Psychological support for teaching staff. Psychologists promote the psychological well-being of teachers working in the areas most affected by military attacks. They conduct trainings and consultations aimed at managing emotional stress and understanding their own self-defense needs.

These aspects of psychological support help create a favorable psychological atmosphere in the educational environment and support students and teachers in difficult military conditions.

TVERDOKHLIEBOVA, Natalia

<https://orcid.org/0000-0003-3139-4308>

YEVTUSHENKO, Nataliia

<https://orcid.org/0000-0003-0217-3450>

National Technical University «Kharkiv Polytechnic Institute», Ukraine

USING NEW DIGITAL TECHNOLOGIES IN HIGH SCHOOL DURING THE WAR IN UKRAINE

A full-scale war on the territory of Ukraine is having a devastating impact on the country's infrastructure and higher education system. The buildings and premises of many Ukrainian higher education institutions in the areas most affected by the attacks were damaged or completely destroyed. Many teachers and students were forced to leave Ukraine. Despite military attacks, the country's higher education institutions continue to operate, resorting to digital and distance learning technologies

The purpose of the work is to analyze the understanding of the mechanism of action of artificial intelligence in the educational process of a higher school.

Artificial intelligence systems, at least the modern algorithms we are talking about today, are usually not equipped with explicit rules, but learn the rules implicitly. All kinds of learned knowledge and connections of the learned context are contained in a data store, which thus represents a kind of basic knowledge or "internal state" of artificial intelligence. Any input to an artificial intelligence system—be it an image, handwritten text, or other information—is processed based on or in combination with this state of learned knowledge. Typically, this works by calculating numeric values using threshold functions. In addition, each input and processing can change the internal state of the artificial intelligence, allowing its application to be tailored and, at best, optimized for its performance.

But when artificial intelligence enables learning decisions to be automated at scale; teachers may identify undesirable consequences. Thus, artificial intelligence can deal with vagueness, similarity, or minor deviations. This can be prevented if there are clearly defined pre-fixed rules.

Thus, the power of artificial intelligence algorithms is that they learn to recognize patterns in digital data or filter, process and classify large volumes of information. That is, artificial intelligence is a decision-making tool that always needs an external "reason" to translate calculations into concrete actions. But the emphasis should be on teachers who, at different stages of the educational process, can ensure that computer technology, supported by artificial intelligence, will contribute to the achievement of educational goals and teaching solutions.

UŞAKLI, Hakan

<https://orcid.org/0000-0003-4307-2226>

Sinop University, Education Faculty, Turkey

**PRECAUTIONARY BEHAVIOR TRAININGS FOR INDIVIDUALS
WITH SPECIAL NEEDS EVALUATION OF THE EFFECT IN
TERMS OF SOME VARIABLES**

Precaution means taking precautionary measures, taking precautions in a timely manner, thinking ahead. Social emotional learning makes it important to teach cautious behaviors at an early age.

It is a matter of great importance that individuals with special needs are educated in the face of all kinds of situations that may occur in their environment due to their special qualities. Individuals with special needs need to have sufficient information on many issues, from environmental disasters to home accidents, from thoughtless sexual behaviors to addictive substance use.

Even if he does not face an environmental disaster such as an earthquake, flood, fire, does not use cigarettes, alcoholic beverages, drugs, unprotected sexual intercourse, even if he is not a victim of fraud, getting training on precautionary behaviors can help every person with psychosocial effects such as self-esteem, assertiveness, and motivation. may have a positive effect on educational variables.

In this study, the effects of precautionary behavior training on individuals in need of special education were investigated in the light of the research.

Clear, effective precautionary behavior training appropriate to the level should be prepared within a good planning in terms of content and process. Experimental studies are needed on the effectiveness of precautionary behavior training.

UŞAKLI, Hakan

<https://orcid.org/0000-0003-4307-2226>

Sinop University, Education Faculty, Turkey

TEACHING CHILDREN PEACE DURING CIRCLE TIME

In the 2020s, as in 1914 and 1939, the world needs peace more than ever before. The wars in Korea, Vietnam, Cyprus, Iran-Iraq ignited the fire of the world. The events of 9/11, the Arab spring, Afghanistan, Iraq and Syria and Ukraine have made the world a more chaotic planet.

However, fires, earthquakes, floods and Covid19 have shown how essential it is for us to cooperate and live amicably in the world. Is it that hard to live in peace? Maybe we, as educators, are making mistakes right from the beginning.

This study is about how to introduce peace to kindergarten students as a circle time application. Peace as a philosophy and as a value is the practice of not being hostile to each other, within the friend-education. It is based on the expression of feelings and thoughts by a large number of participants, especially at a young age. Circle time practices developed by Mosley (2006) are applied all over the world at all levels of education, especially kindergartens. Circle clock practices are structurally democratic.

Opinions are expressed sequentially. Each participant should respect each other's opinion. Thanks to the circle clock applications, feelings and thoughts that cannot be expressed are expressed and responded to. It is not easy to teach an abstract concept such as peace to individuals in the concrete operational stage.

Thanks to circle time practices, children can learn what they understand by peace, how they feel when they are treated unfairly, and how to behave towards their peers who are bullied. It is recommended that all living values, especially peace, be taught through practices such as circle time at all levels of education.

VALETSKA, Viktoriia

Lesia Ukrainka Volyn National University, Ukraine

LEARNING AND TEACHING: AFTER WAR AND IN TIMES OF PEACE

After a war, there is always a time of recovery and adaptation to new realities. Russia's invasion of Ukraine in 2022 was a challenge not only for the political sphere but also for education.

Education plays a pivotal role in personal well-being, societal stability, and a nation's future. However, according to the UN, 5.7 million Ukrainian children were affected by Russia's aggression, with 3.3 million needing educational support and 2.8 million requiring protection measures. Additionally, as of November 14, 2022, 167,000 students were internally displaced, and over 43,000 teachers had to leave their communities. More than 2,000 educational institutions were damaged or destroyed due to the conflict (INEE Project6 2023).

The objective of this thesis is to assess the impact of Russia's invasion of Ukraine in 2022 on the country's education and teaching system, highlighting the key outcomes of this impact.

Russia's military aggression against Ukraine has caused serious difficulties in access to education, disrupted equal opportunities, and significantly deprived millions of Ukrainian children and youth of quality education.

The military conflict has a diverse impact on the education field:

- Interrupted education: The war has led to the suspension of education due to evacuations, destruction of educational facilities, and threats to the safety of students and teachers.
- Revision of curricula: The curricula were revised and new subjects related to civil defense and security were added.
- Psychological health of education participants: The war has had a significant impact on the psychological state of students, teachers, and staff of educational institutions, and they need psychological support.
- Change of priorities: There is often a re-sorting of priorities in the education system. It became important to foster patriotism, spirituality, and strengthen the spirit of the nation.
- Reconstruction of infrastructure: Military conflicts have caused widespread destruction, including the infrastructure of educational institutions. There is a need for rapid reconstruction of schools, universities, and libraries.

The military conflict, in particular Russia's invasion of Ukraine in 2022, has a serious impact on the country's education. Preventing interruptions in the learning process, developing adaptive curricula, and providing psychological support to students become important tasks in the context of military conflict.

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VERESHCHAKA, Anna

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

STUDYING AND TEACHING AFTER THE END OF THE WAR IN UKRAINE

The Government of Ukraine can introduce special education programs for people affected by war, such as children of war, military and civilians who lost their educational opportunities during the war.

Additional security measures may be introduced in universities and other educational institutions to ensure the safety of students and teachers in the post-war reconstruction of the country.

In connection with the high level of mobility in Ukraine, new forms of learning and teaching may appear, in particular, distance learning, which will allow students to receive education from anywhere in the country. This can be a chance for millions of Ukrainian schoolchildren to continue receiving quality knowledge in a Ukrainian school, which means to continue to be mentally connected to their homeland. This will reduce the outflow of talented young people abroad.

Programs and courses can be introduced to help students and teachers overcome the psychological difficulties associated with the stress and trauma of war.

The use of online courses, video lessons, virtual reality and other technologies that can help improve the effectiveness of learning and expand access to education in regions with limited opportunities is not an exception.

An important idea is the development of international cooperation in the field of education, which will allow Ukrainian students and scientists to gain experience and knowledge at the world's leading universities, as well as study international standards and best practices.

It is worth noting that it is important to ensure free access to knowledge and information for everyone, which will ensure equal opportunities for all citizens and contribute to the development of society.

Purpose: determine the value of education and teaching after the end of the war in Ukraine.

Results: After the war, it is important to change the approach to education and upbringing in order to make it more nationally oriented and contribute to the revival of patriotism in Ukraine.

Conclusion: After the war, Ukraine can put more emphasis on improving the quality of education and developing scientific research. It is important to introduce measures to support scientific research in Ukraine, which will help prepare the next generation of specialists who will be able to solve important problems of the country.

VERETIUK, Tetiana

<https://orcid.org/0000-0002-3985-1529>

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

IMPLEMENTING CLIL METHODOLOGY ELEMENTS IN THE TEACHING PROCESS OF UKRAINIAN LITERATURE

Aim: Currently, various methods and approaches are gaining increasing significance in the field of education (Веретюк, 2023). One of these approaches, *CLIL (Content and Language Integrated Learning)*, has gained widespread usage worldwide, attracting particular attention within this context.

The term “*CLIL*” was first proposed by David Marsh, a researcher in the field of multilingual education, in 1994. It refers to the methodology of teaching and learning general education subjects, or specific sections thereof, in a foreign language.

In Ukrainian, the acronym *CLIL* stands for “subject-language integrated learning” or “context-language integrated learning”.

Results: In the presented research, the term “*CLIL*” is interpreted as a didactic technique that enables students to cultivate linguistic and communicative competence in a foreign language within the same educational context where general knowledge and skills are fostered.

Elements of the *CLIL* methodology can be integrated into lessons of Ukrainian literature through the following methods:

- **Problem Lecture:** The teacher engages students by posing questions and encouraging them to find solutions.
- **Socratic Lecture:** Students explore the subject through the teacher’s affirmations and refutations, leading to a potential “scientific discovery”.
- **Discussion Lecture:** Various positions in literary studies concerning a particular text are brought forth and discussed.
- **Associative Lecture:** This approach draws parallels between the literary text and various artistic phenomena, departing from a traditional analytical framework.
- **Reproductive Conversation:** Students respond to prepared questions related to the author’s biography or the content of the text.
- **Heuristic (Socratic) Conversation:** Secondary education students are encouraged to form and develop their personal opinions and reflections.
- **Actualization Conversation:** By relating the knowledge and life experiences of the learners, the teacher prompts emotional engagement consistent with the psychological theme of the literary text.
- **Discussion:** Students participate in an exchange of ideas, sharing their viewpoints, providing arguments and examples, and comparing different perspectives on specific issues.
- **Debate:** A structured, organized public exchange of opinions between two sides on a relevant topic, often conducted over multiple lessons.

- **Dispute:** A prepared, public discussion dedicated to a significant issue that resonates with the students' own experiences.

Furthermore, the elements of the *CLIL* methodology can also be implemented through various literary activities such as role-playing or professional games, as well as intellectual and television games.

Conclusions: The incorporation of *CLIL* methodology elements into the teaching of Ukrainian literature not only fosters the creation of a simulated language environment and a meaningful context but also amplifies language acquisition efficiency.

This approach contributes significantly to the increased motivation of students engaged in the learning process.

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VIEDIERNIKOVA, Tetiana

<https://orcid.org/0000-0003-0139-6169>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine,

INTERACTIVE METHODS OF FOREIGN LANGUAGE TEACHING FOR PHILOLOGICAL SPECIALTIES

The problem of considering the technology of the educational process in higher education is caused by the need to involve students in active cognitive process, application of acquired knowledge in practice, cooperation in solving various problems, formulating and arguing one's own opinion.

The need for updating education has led to the emergence and spread of a large number of approaches to the organization of educational process, methods and technologies of teaching and upbringing. In particular, interactive learning technologies have gained significant popularity so far, which a modern philologist should be ready for.

Purpose: to summarize the experience of using interactive technologies in the process of training of future philologists.

An urgent problem of education is the creation of new educational technologies that contribute to the general development of the individual, the formation of student's worldview culture, individual experience and creativity. It can be called such technologies interactive, having a direct impact on the formation of professional competence philologist.

Results: according to data of scientific research, interactive learning is a type of active learning. It consists in the fact that the educational process is carried out under constant and active conditions of interaction of all participants. Mutual learning is carried out, where all subjects are equal partners. Such training effectively benefits the formation of value orientations, skills, creating an atmosphere of cooperation and interaction.

The use of interactive technologies assumes that the lesson is based on technological approach, as it necessarily has a planned result, is a set of interactive methods, techniques, teaching aids, characteristic of specific situation; consists of a set of learning models developed by the teacher based on interactive learning.

The structure of the interactive lesson consists of the following elements: motivation – focusing students' attention on the problem of the lesson, stimulating interest in the discussed topic; announcement, presentation of the topic and expected training results – ensuring students' understanding of the content of their activities; granting students of brief information in a minimally short time to perform practical tasks through interactive learning.

Interactive exercises – the central part of the lesson, that involves the use of several interactive technologies by the teacher, selected depending on the expected results; summing up, evaluation of results, feedback instruction and reflection. Main task is to clarify the content of the work; correlate actual results with expected results; draw conclusions; to consolidate or correct learning; establish a connection between what is already known and what will need to be mastered and learned in the future; make a plan of further actions.

Conclusion: based on the researched sources, it was established that the leading principle for the study of linguistic disciplines in higher educational establishments is a principle of communicative orientation.

This principle affects the formation of the professional and communicative competence of the philologist and requires compliance with the following tasks and conditions: selection of the situation, participation of everyone in communication, communicativeness of tasks, multiplicity and novelty, favorable conditions for communication.

VITOMSKYI, Yuriy

<https://orcid.org/0000-0003-3094-5104>

*Kyiv University of Intellectual Property and Law of the National University
«Odesa Law Academy», Ukraine*

**WILL THE PARTICIPANTS OF THE EDUCATIONAL PROCESS
FORGET THE DESTRUCTIVE POWER OF WAR, OR HOW
PSYCHOLOGY HELPS TO SURVIVE IN PEACETIME**

During war, children are exposed to traumatic effects on their sensitive psyche. Children may witness shelling, see their town or village destroyed, or even their homes. They may see the wounded or dead, torture and murder, and mass deaths. They may also suffer bereavement, see their family members and friends injured or killed. Children may also be injured themselves. This experience can lead to a variety of psychological problems.

Children who have serious illnesses and have suffered psychological trauma related to the war are particularly traumatised: those injured as a result of hostilities, who have lost loved ones, who have witnessed shelling, explosions, displaced persons, etc. These children need psychological rehabilitation and work with the consequences of psychological trauma.

Children who are admitted to hospital with various pathologies and injuries, the first thing parents and teachers should pay attention to is the child's psychological state; if the child is anxious, excitable, crying constantly, or vice versa, has become withdrawn, changed behaviour, or has fears, they should seek psychological help. Children with stress disorders may show strong attachment to adults to the extent that they may even refuse to stay in the room on their own, often recall traumatic stories, and may be aggressive and cruel in games and drawings.

Children of preschool and primary school age may refuse to do things they used to do on their own (eat, dress), and may experience pain without physiological causes (abdominal pain, headaches).

Adolescents who have experienced the traumatic events of war may express extreme anger, hatred and a desire for revenge, fight, or go to war. Such children usually have sleep disturbances, behavioural changes, and may enter the unreal world of computer or video games, especially those of an aggressive and violent nature.

Thus, the development of methodological recommendations in the work of teachers in hospitals is becoming increasingly important and will have a positive impact on the process of organising education and providing psychological assistance in hospitals.

In times of war, the role of the psychologist in dealing with psychological trauma of not only children and parents, but also teaching staff, who are also under stress due to the war, is increasing. The development and implementation of state rehabilitation programmes is an important component of preserving the mental health of the population.

VLASIUK, Tetiana

Lesia Ukrainka Volyn National University, Ukraine

PECULIARITIES OF MILITARY DISCOURSE

Today, one of the most important social institutions in many countries is the army. Therefore, there is a need for a comprehensive study of military discourse with the subsequent identification of its structural features and specifics of translation. The purpose of the article is to analyse, reveal the importance and explain this type of communication.

Military discourse is a specific type of communication used in military and defence contexts. Military discourse is an institutional discourse because it has a number of properties of the latter. Military discourse stands out in relation to modern society alongside other types of institutional discourse.

The main feature is specialised terminology. Military discourse uses a lot of terms, abbreviations and acronyms specific to this field. These may include military ranks, names of weapons and military units, tactical and strategic terminology. A translator must have a thorough knowledge of specialised terminology and use it in accordance with the context and task of the translation. Specialised terminology, in turn, has its own peculiarities that distinguish it from general terminology.

Military discourse emphasises the importance of maintaining the confidentiality and security of information. This can sometimes lead to restrictions on disclosing details of military operations. Hierarchy and discipline play an important role in military discourse. Commands and instructions must be obeyed without exception, and communication is structured to emphasise this discipline. The armed forces are organised to maintain military order and unity. An equally important feature of military discourse is clarity, efficiency of communication and accuracy. Inaccuracies or misunderstood commands can have serious consequences.

Military discourse often uses expressions and rhetorical devices that emphasise heroism, courage and patriotism. During military conflicts or crisis situations, military discourse can be particularly intense and extremely specific, as it is important to respond to the situation quickly and accurately.

Structure and accountability are one of the main pillars of military discourse. Commands, reports and other communications from military personnel have a clear structure and format to ensure clarity and comprehension. Reports on military operations often need to include detailed data and analysis.

In general, military discourse is a specific type of speech marked by its specialised terminology, focus on security and efficiency, and strict discipline and hierarchy.

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VYSHNYK, Olena

<https://orcid.org/0000-0002-0854-0330>

Oleksandr Dovzhenko Hlukhiv national pedagogical university, Ukraine

THE COGNITIVE ASPECT IN THE DEVELOPMENT OF PRIMARY SCHOOL STUDENTS' SPEECH

Purpose:

Modern tendencies of school language education imply strengthening of the practical orientation of the process of mastering the mother tongue, subordination of the work on the language theory to the interests of students' speech development. Considering this, the goal of the primary school language course is to teach students to use Ukrainian fluently as a means of communication, spiritual enrichment, and formation of intellectual culture. This approach ensures the proper level of speech competence of students, which is one of the most important conditions for successful socialization. This can be achieved through the transformation of language learning technologies and the development of innovative techniques.

The aim of the thesis is to reveal the peculiarities of speech competence formation of primary school students in the conditions of cognitive approach realization.

Results:

Observations of the Ukrainian language lessons, conversations with students and teachers made it possible to find out that primary school students violate the norms of the modern Ukrainian literary language not only in oral but also in written speech. Students are not sufficiently aware of the importance of a high culture of speech in communication; often produce texts with the same sentences; stylistic inaccuracies are assumed. On average, 6-7% of students showed a high level of the language, and about 35% had a sufficient level. Therefore, the actuality of the cognitive teaching methodology of the Ukrainian language is due to the insufficient level of communicative training of students and their ability to apply linguistic knowledge in specific life situations. The peculiarity of cognitive methodology lies in the interpretation of language units as concepts –carriers of ethno-cultural information, special signals of a particular world. The purpose of such a technique is to help students master linguistic units as concepts –deep meanings of the detailed content structures of the text, which is the embodiment of the author's motives and intentions, in order to form the ability to adequately perceive textual information and to create their own (oral and written) utterances in accordance with the communicative purpose. The cognitive approach develops cognitive activity of students, increases interest in learning the Ukrainian language, fosters respect for the linguistic traditions of the Ukrainian people, and a desire to follow the aesthetic and ethical norms of communication.

To achieve this goal the following tasks were set:

- to represent the content and structure of the speech competence of primary school students;
- to characterize the peculiarities of organizing the educational process in primary school on the basis of a cognitive approach;
- to substantiate and illustrate the cognitive methodology of teaching the Ukrainian language to primary school students;
- to

make conclusions on the effectiveness of the use of the cognitive approach for teaching the Ukrainian language to primary school students.

Conclusion:

Formation of speech competence of a primary school student is an actual problem of primary school and the main purpose of the course of the Ukrainian language, which is manifested in the ability to successfully use the language in the process of communication, knowledge of the world, and solving vital tasks. The implementation of the cognitive approach optimizes the language learning process in primary school, forms a multicultural linguistic personality, develops and refines the linguistic and conceptual picture of the world.

Linguistic knowledge and complete speech and language skills of the Ukrainian language, acquired in the primary school classes, will not only provide an opportunity for further language education in the main classes, but also facilitate free expression in all spheres of social and industrial life. Therefore, the primary task of teaching young students is to form and improve speech communication. The cognitive approach is based on the provisions of cognitive psychology, which involves the formation of speech competence of primary school students with a reliance on the principle of consciousness. It directs the study of language in the course of communicative activity as an objective category that fixes the socially recognized complex of students' level of knowledge.

YAKOVLIEVA, Alina

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

**EDUCATION AND TEACHING OF THE SPEECH THERAPIST:
AFTER WAR AND DURING PEACE**

The **aim** of this paper is to analyze the education and teaching of the speech therapist.

Results. Speech therapy is a critical field that helps individuals with communication disorders improve their ability to communicate effectively. The education and training of speech therapists have undergone significant changes over time to meet the evolving needs of society.

The goal is to provide an overview of the evolution of speech therapy education and training, highlighting the changes that have occurred in response to the needs of society during the post-war and peacetime periods. The field of speech therapy has undergone significant changes in both the post-war and peacetime periods.

The education and training of speech therapists have evolved to meet the changing needs of society. In the post-war period, speech therapy education focused on rehabilitating soldiers with communication disorders resulting from war injuries. The need for speech therapy services increased significantly during this time, as many soldiers were returning home with speech and language disorders that required specialized treatment. As a result, speech therapy education programs were developed to train professionals in the rehabilitation of these individuals.

In peacetime, the focus shifted towards addressing speech and language disorders in the general population. Speech therapy education programs expanded to include training for professionals to work with individuals of all ages who may have communication disorders due to developmental delays, neurological conditions, or other factors. These programs also emphasized the importance of early intervention and prevention of speech and language disorders.

In **conclusion**, it can be said that, speech therapy has adapted to society's changing needs, shifting from rehabilitating soldiers to addressing speech and language disorders in the general population. The principles remain the same, but new technologies and techniques have transformed the way speech therapy is taught and practiced, allowing for more effective treatment. Speech therapy plays a vital role in helping individuals with communication disorders achieve their full potential and improve their quality of life.

YAVORSKYI, Hlib
SEMENYSHYN, Olena

Kyiv Cooperative Institute of Business and Law, Ukraine

COMPARISON OF THE LEGISLATION OF UKRAINE AND THE USA (ADA) IN THE FIELD OF ENSURING THE RIGHTS OF PERSONS WITH DISABILITIES

The **purpose** of the article: Comparison of the US legislation on the example of the ADA with the legislation of Ukraine to analyze and improve the legislation of Ukraine. Because of the Russian-Ukrainian war, there might be chances that there will be a higher increase in disabled people from the injuries caused by it.

Results: In the USA, employment issues have been regulated by legislation since 1990. The Americans with Disabilities Act (ADA) prohibits discrimination against people with disabilities in several areas, including employment, transportation, public accommodations, communications, and access to state and local government programs and services.

Regarding employment, Title I of the ADA protects the rights of both employees and job seekers. The ADA also establishes requirements for telecommunications relay services. Title IV, which is regulated by the Federal Communications Commission (FCC), also requires closed captioning of federally funded public service announcements.

Under Title I of the Americans with Disabilities Act (ADA), employers, including state and local governments, with 15 or more employees, are prohibited from discriminating against people with disabilities.

Title I protects qualified individuals with disabilities in several areas, including job application procedures, hiring, firing, advancement, compensation, and job training. It is also unlawful to retaliate against someone for opposing employment practices that discriminate based on disability, or for filing an ADA discrimination charge.

The Office of Federal Contract Compliance Programs (OFCCP) shares enforcement authority for Title I of the ADA with the U.S. Equal Employment Opportunity Commission (EEOC), which has primary responsibility for enforcing the employment provisions of the law. (Note: Federal employees and job applicants are covered by Section 501 of the Rehabilitation Act of 1973 instead of the ADA. The protections are mostly the same.)

One of the key non-discrimination aspects of the law is the requirement to provide reasonable accommodations for employees and job seekers with disabilities.

Accommodations make it possible for a person with a disability to perform their job, but they must not create an “undue hardship” for the employer, in other words, cause too much difficulty or expense to implement.

What examples of reasonable accommodations may be needed during the hiring process? They can take many forms, including providing written materials in accessible formats, such as large print, Braille, or audiotope, and providing readers or sign language interpreters (U.S Department of Labor, n.d.).

In Ukraine, unlike the USA, there is currently no unified legislative act regulating the rights of people with special needs, namely employment-related rights. The Ukrainian government needs to develop and provide. The only regulatory legal action that will regulate the issue of employment and social protection of persons with disabilities.

Conclusions: When concluding, attention should be paid to the fact that the absence of a single normative legal act in Ukrainian legislation, which should regulate the labor rights of people with special needs, makes this group of society vulnerable to manifestations of such people both in society in general and in discriminatory manifestations in labor relations.

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YEVTUSHENKO, Nataliia

<https://orcid.org/0000-0003-0217-3450>

TVERDOKHLIEBOVA, Natalia

<https://orcid.org/0000-0003-3139-4308>

National Technical University «Kharkiv Polytechnic Institute», Ukraine

PROSPECTS FOR MODERN TRENDS IN THE DEVELOPMENT OF HIGHER EDUCATION IN UKRAINE

The Ukrainian professional community and ordinary citizens, like the rest of the world, are facing unprecedented challenges that affect the political, social, economic and psychological situation in the country.

The means and quality of providing educational services are the subject of constant debate; the forced transition from classroom to distance learning has no analogues, as a consequence of the need to develop independent learning skills and improve acquired knowledge among students of higher educational institutions, as direct participants in existing and future social processes in Ukraine and the world, seems pressing. Due to the limited opportunities for classroom communication, the question of a clearer vocational direction of education should become more pressing, where candidates could receive more consulting assistance, combining personal instruction with distance learning opportunities and the latest digital technologies that are more cost-effective.

Higher education must experiment with different methods to meet very different needs. The main directions of development of higher education in modern conditions include:

- 1) the introduction of blended learning as a combination of classroom classes with classes in a distance format;
- 2) advanced training of scientific and pedagogical workers in the process of non-formal education and self-education to improve the level of digital literacy. In order to ensure high-quality provision of the above-mentioned areas of development of higher education, scientific and pedagogical workers of higher education in Ukraine must have special competencies, by which we mean a set of special techniques, technologies and forms of organizing the educational activities of students.

From our point of view, the competence of a higher education teacher is manifested, first of all, in understanding the role of lifelong education as a factor in personal and professional development, in treating students as partners, which involves taking into account age and individual characteristics, professional needs and motivation for students' educational activities, as well as in the teacher's attitude towards himself as a teacher working with student youth, requiring critical self-assessment of the level of professional skill and constant self-educational activity.

Thus, it should be noted that these areas of development of higher education are relevant. At the same time, we note that higher education institutions also need to take into account the expansion of their own autonomy to improve the quality of teaching and learning and the introduction of blended learning to provide educational services to students.

ZHYHUN, Bohdan

<https://orcid.org/0000-0002-1159-2975>

Vytautas Magnus University, Lithuania

ORGANIZATION OF HYBRID EDUCATION FOR UKRAINIAN STUDENTS, WHO CANNOT LEAVE UKRAINE DUE TO HOSTILITIES IN FOREIGN EDUCATIONAL INSTITUTIONS

The **aim** of this paper is to analyze the organization of hybrid education for Ukrainian students, who cannot leave Ukraine due to hostilities in foreign educational institutions.

Results. The surge of hostilities in Ukraine has had a noticeable impact on various aspects of civilian life, with education being a prominent area that has undergone significant upheaval. Considering this, facilitating access to education for Ukrainian students who cannot leave the country to continue their studies at foreign universities is of paramount importance.

The main purpose of this article is to explore strategy for organizing hybrid education for Ukrainian students who cannot leave Ukraine due to ongoing hostilities, which will allow them to continue their studies in foreign educational institutions.

The evolution of hybrid and online learning has been the subject of much research, especially in the context of ensuring educational continuity in different settings and circumstances. A study conducted by Hermita et al. (2023) showed that hybrid learning was extremely effective, achieving a 90.32% success rate in correcting student misconceptions, outperforming both blended and face-to-face teaching methods. This highlights the potential of hybrid learning to address learning challenges. In addition, special attention is directed to the social responsibility of higher education institutions during crises and armed conflicts, with particular attention to the Ukrainian context (Hanushchak-Efimenko et al., 2023). The study concludes that the active implementation of social responsibility is necessary in Ukrainian higher education institutions, and examples from international experience can serve as the basis for the development of effective strategies and programs.

In the context of hybrid education for crisis contexts, a comprehensive solution would involve the creation of a robust, flexible, and accessible educational framework that caters to the diverse needs of students amidst hostilities and disruptions. This framework would prioritize maintaining educational continuity and providing support to students who cannot leave Ukraine due to the ongoing conflict, ensuring that their educational journey is not significantly hampered.

Conclusions. The implementation of hybrid education is becoming a vital strategy for ensuring continuity of education for Ukrainian students in the context of ongoing hostilities, leveraging its demonstrated effectiveness in providing accessible and effective learning experiences. A comprehensive system that combines online learning and limited face-to-face learning, based on research and international experiences of educational institutions in crisis, will not only support educational efforts during conflict, but will also highlight the key role of social responsibility.

**ZHYLNIKOV, Oleksii
SAMODAI, Valentyna**

<https://orcid.org/0000-0002-40435426>

A. S. Makarenko Sumy State Pedagogical, Ukraine

COMPARISON OF THE DISTRIBUTION OF THE PERMANENT POPULATION OF SUMY BY GENDER AND AGE FOR 2011 AND 2022

The **aim** of this paper is to compare the distribution of the permanent population of Sumy by gender and age for 2011 and 2022

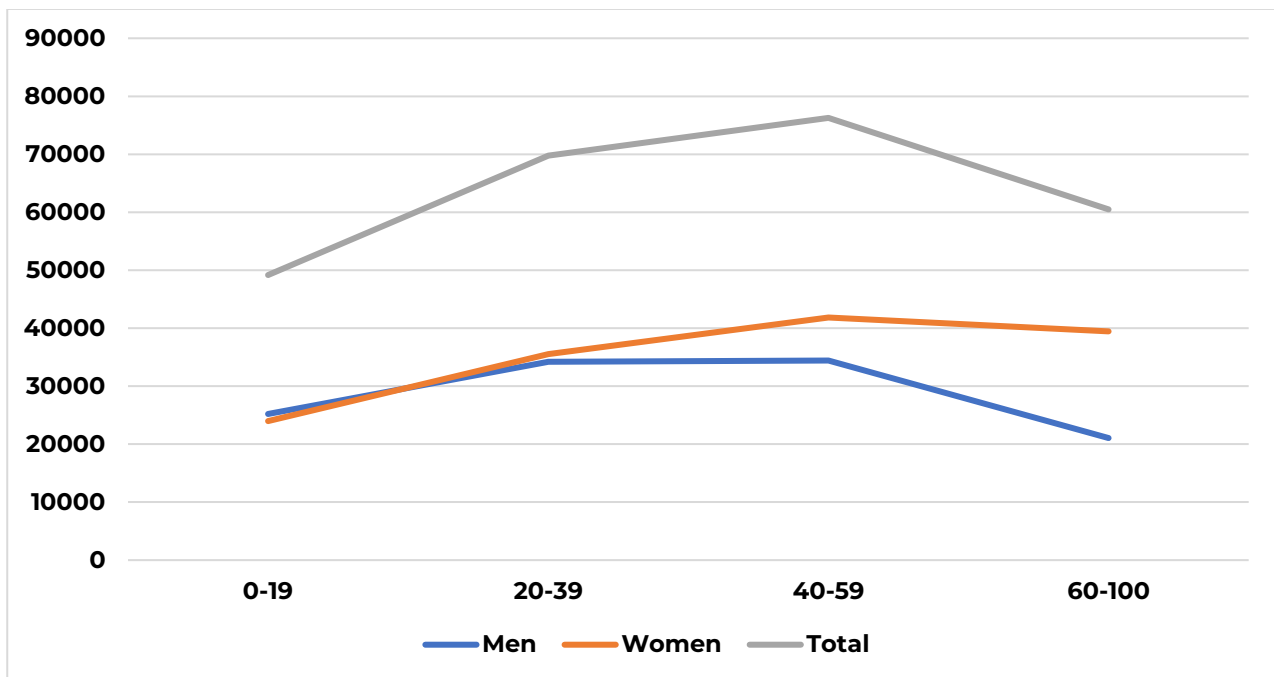
Results. Every citizen of Sumy has a desire for the city of Sumy to become a large, developed European city, but the geographical location dictates its own rules. Ukraine is the frontier of European civilization, and the Slobozhanshchyna region, which includes our city, is the frontier of the Ukrainian state itself.

And such territories can rarely be prosperous, as constant shelling of the borders and mining of a large number of territories do not contribute to the desire to stay and build their lives at home.

For these reasons, the population of Sumy and the Sumy region is steadily declining. It is important to note that there has been no census since the start of the full-scale war, and we can only guess how many people are left in the city.

Table 1

City Population by Age and Gender



Unfortunately, Sumy is experiencing a demographic crisis, meaning that the number of people, especially those of working age, is decreasing every year, and the city's population is aging massively. For example, in 2011, the average age of a Sumy resident was 39.6 years, while in 2022 it will be 41.5 years.

It is also very interesting that there are almost 26 thousand more women in Sumy than men, and having read similar documents from other Ukrainian settlements, I can say that the reason is that men die at the age of 68 on average, which is 10 years less than women. Thus, in 2011, men lived on average 66 years, and women

76 years, as we can see, this figure is steadily growing, but not at the rate expected.

Table 2

Comparison of the distribution of the permanent population of the city of Sumy (2011-2022)

Порівняння розподілу постійного населення Укра							
Сумська область м. Суми			2022 рік	Сумська область м. Суми			2011 рік
Sumy oblast city Sumy				Sumy oblast city Sumy			
Вік (років)	Обидві статі	Чоловіки	Жінки	Вік (років)	Обидві статі	Чоловіки	Жінки
Age (years)	Both sexes	Males	Females	Age (years)	Both sexes	Males	Females
Усього / Total	255672	114887	140785	Усього / Total	270214	121951	148263
ому числі / including				у тому числі / including			
до 1 року / up to				до 1 року / up			
1 year	1544	791	753	to 1 year	2671	1372	1299
0–4	9298	4815	4483	0–4	13425	6864	6561
5–9	13951	7277	6674	5–9	10367	5302	5065
10–14	13627	6942	6685	10–14	10053	5219	4834
15–19	12295	6156	6139	15–19	16864	8099	8765
20–24	12225	6525	5700	20–24	21120	10397	10723
25–29	14409	7057	7352	25–29	25222	12324	12898
30–34	18347	8854	9493	30–34	21947	10613	11334
35–39	24761	11786	12975	35–39	19924	9410	10514
40–44	21398	10215	11183	40–44	18626	8338	10288
45–49	18908	8804	10104	45–49	22054	9757	12297
50–54	17130	7429	9701	50–54	22483	9539	12944
55–59	18833	7975	10858	55–59	20270	8451	11819
60–64	19384	7598	11786	60–64	16712	6858	9854
65–69	16250	5852	10398	65–69	7971	3018	4953
70–74	12909	4371	8538	70–74	12120	4522	7598
75–79	5045	1457	3588	75–79	4593	1616	2977
80 років і старше	6902	1774	5 128	80 років і старше	6463	1624	4839

Unfortunately, we have a disappointing situation with the birth rate. For example, in 2011, 2671 children under the age of one were registered, while as of 2022, only 1544 were registered (Table 2). After February 24, 2022, the birth rate fell critically throughout Ukraine. Children were taken en masse as far away from the war as possible, and who knows how many of them will return.

More boys are born than girls, but the situation changes radically with age, and by the age of 30, women begin to dominate the numbers. And there are three times more women over 80 than men (Table 1).

In **conclusion**, the population of Sumy is steadily declining and aging, and this is already having a negative impact on the number of taxpayers and the future development of the region as a whole. The probable future of Sumy in the postwar period is a small but cozy town at the very frontier of European civilization, with all the features of this location.

NATURAL & MATHEMATICAL SCIENCES SECTION

ABDULLAIEVA, Aihun

<http://orcid.org/0009-0006-1456-9339>

HULIEVA, Visala

<http://orcid.org/0009-0003-4986-9196>

MYROSHNYCHENKO, Mykhailo

<http://orcid.org/0000-0002-6920-8374>

Kharkiv National Medical University, Ukraine

DELAYED LIFE SYNDROME IN MEDICAL UNIVERSITY STUDENTS DURING THE WAR

The **purpose** was to conduct a survey of medical university students studying during the war and to determine the presence of delayed life syndrome (DLS).

Results. A survey of 95 students of Kharkiv National Medical University was conducted for the period from March 2022 to March 2023. 83 students (87.4%) noted the presence of DLS. Respondents indicated the reasons of this condition: war in the country (57 students, 68.7%); bad mood, well-being, fatigue, lack of energy (58 students, 69.9%); uncertainty about the future (46 students, 55.4%); the presence of many things to do (41 students, 49.4%); the need to change the place of residence (36 students, 43.4%); loss of relatives (10 students, 12%); long-term occupation of the territory where they live (8 students, 9.6%); stress and difficulties in personal life (4 students, 3.6%); problems with the nervous system or psyche (1 student, 1.2%).

47 students (56.6%) noted the impact of DLS on their work capacity and quality of life, which manifested as emotional exhaustion, decreased motivation, loss of interest in work and apathy (24 students, 51.1%); decrease in productivity and quality of work performed (15 students, 31.9%); postponement of cases and inactivity (11 students, 23.4%); decreased concentration, depressive states (2 students, 4.2%). 16 students (19.3%) did not notice the impact of DLS on their work capacity, quality of life, and 20 students (24.1%) found it difficult to answer.

15 students (18.1%) noted that DLS had a negative impact on relationships with colleagues due to irresponsibility in studies and work, lack of desire to communicate. In 48 students (57.8%) the DLS did not affect the relations with colleagues, and 20 students (24.1%) had difficulty deciding the answer.

59 students (71%) did not struggle with DLS, 11 students (13.3%) sought medical help, 13 students (15.7%) tried to cope on their own, and 14 students (16.9%) started smoking and drinking alcohol.

Conclusions. The DLS is extremely characteristic for medical university students studying during the war, the cause of which is mainly the war in the country. The DLS in medical university students has a negative effect on work capacity, quality of life, relationships with colleagues, and reduces the effectiveness of education. The conducted research actualizes the search for effective methods and strategies aimed at overcoming the DLS in medical university students.

BIELIAIEVA, Olena

<http://orcid.org/0000-0002-7246-4694>

Sumy National Agrarian University, Sumy, Ukraine

IMPLEMENTATION OF INFORMATION TECHNOLOGIES IN PUBLIC ADMINISTRATION SYSTEMS

The **aim** of this paper is to analyze the implementation of information technologies in public administration systems.

Results. The modern world cannot be imagined without information technology (IT), which has become an integral part of all sectors of the economy and society as a whole. The implementation of IT in government systems marks a new era in the development of public administration, where they become a key tool for improving the quality of public services and streamlining the state apparatus (Malinovskyi, 2000).

The goal of implementing information technology in the system of government administration in Ukraine is to achieve European standards of quality in electronic administrative services, openness, and transparency of government for citizens, representatives of businesses, and civil organizations.

Information technologies contribute to the increased efficiency of government agencies. The automation of many routine procedures that previously required significant time and financial resources is now possible through the adoption of modern IT solutions (Fountain, 2001). This enables government employees to focus on strategic tasks and solving complex problems, ensuring a high level of productivity.

Additionally, the implementation of IT enhances transparency and openness in the work of government authorities. The creation of electronic platforms for service provision and the publication of information about the activities of government bodies allow the public to monitor and control their work [6]. This mechanism helps prevent corruption and increases the level of trust citizens have in the government.

Improving government systems through IT also improves communication between citizens and government agencies. Electronic services allow citizens to access necessary information and services online, reducing the time and effort spent interacting with the state apparatus. This is an important step in creating an accessible and convenient environment for citizens.

However, alongside the significant advantages, the implementation of IT in government systems poses its challenges and risks. Cybersecurity becomes a critical aspect when introducing IT, as the threat of cyberattacks and the leakage of confidential information increases (Heeks, 2006). It is necessary to ensure the reliable protection of vital data and information systems.

It should also be noted that the implementation of IT requires certain expenses and investments in technical infrastructure and staff training. However, these expenses should be viewed as investments in the future, as the modernization of management systems through IT will lead to increased productivity and the quality of services provided to citizens (UN Department of Economic..., 2016).

Examples of successful IT implementation in government administration can be found in countries such as Estonia, Singapore, and India. In Estonia, every citizen

has access to their electronic identity card, which allows them to receive services and vote online. The SingPass electronic portal in Singapore provides citizens with access to more than 1,000 government services. India is implementing the Digital India program to improve the accessibility of electronic services and enhance administrative efficiency (Reddik, 2011).

Conclusions. Thus, the implementation of information technology in government administration is recognized as a key step in the development of modern public administration. This allows for the improvement of the quality of public services, makes government more open and transparent, and facilitates interaction between the government and citizens. However, it is important to consider international experience in building e-governance, domestic challenges related to cybersecurity, and the need for investments in this process to achieve the best results.

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SAMODAI, Valentyna

<http://orcid.org/0000-0002-4043-5426>

BILASH, Sofiia

A. S. Makarenko Sumy State Pedagogical University, Sumy, Ukraine

ANALYTICAL DATA ON THE MIGRATION OF UKRAINIANS ABROAD IN UKRAINE

The processes associated with the migration of Ukrainians abroad are relevant because they affect various aspects of life. First of all, it is a change in the population, the country's economic situation, social and ethnic changes.

According to the statistics of the Ministry of Foreign Affairs (Table 1), as of June 21, 2023, 8 million 177 thousand Ukrainians were abroad; compared to February 1, 2023, that is, in less than five months, this number has increased by almost 188,000 people.

Table 1

Migration of Ukrainians abroad in less than 5 months

Date	Date Number of Ukrainians abroad, PPL
01.02.2023	7 989 027
29.03.2023	8 054 849
21.06.2023	8 177 638

This means that the number of people migrating abroad is increasing, resulting in a decrease in Ukraine's population, able-bodied citizens, consumers and producers, etc.

It is known that more than half of Ukrainians live in only three countries:

Poland – 22%, Germany – 14.6%, and the United States – 11%. Many Ukrainian citizens have also found refuge in the Czech Republic (7.9%), Italy (5%), and Canada (4.9%), Spain – 3.4% and Israel – 2.75% (Table 2).

Table 2

Statistics on the stay of Ukrainians in different countries

Country	Percentage of Ukrainians
Poland	22, 00 %
Germany	14, 60 %
USA	11, 00 %
Czech Republic	7, 90 %
Italy	5, 00 %
Canada	4, 90 %
Spain	3, 40 %
Israel	2, 75 %

Thus, Ukrainian migration statistics show a sharp decline in the population due to martial law and dangerous living conditions. But there is hope that after the war is over, most citizens will return to rebuild the country and boost Ukraine's economy.

CHERNYSHOV, Bohdan

Kharkiv National University of Radio Electronics, Kharkiv, Ukraine

**APPLICATION OF THE METHOD OF GREEN-RVACHOV
QUASIFUNCTIONS TO THE NUMERICAL ANALYSIS OF THE
FIRST BOUNDARY VALUE PROBLEM FOR A SEMILINEAR
ELLIPTIC EQUATION WITH THE LAPLACE OPERATOR IN \mathbb{R}^2**

Problems of mathematical modeling of stationary heat transfer processes in nonlinear media, problems of chemical kinetics, problems of plasma physics, combustion theory, biology, ecology, etc. lead to the need to find a positive solution to the following boundary value problem

$$-\Delta u = f(x, u), \quad x \in \Omega, \quad (1)$$

$$u|_{\partial\Omega} = 0, \quad (2)$$

where Ω is a region in \mathbb{R}^2 with a piecewise smooth boundary $\partial\Omega$, $x = (x_1, x_2)$, $f(x, u)$ continuous and positive function for all $x \in \bar{\Omega}$, $u > 0$.

The exact solutions of problems of the form (1), (2) are almost unknown, and among the numerical methods for analyzing this problem, the method of two-sided approximations should be distinguished.

This can be done by transitioning to the equivalent problem (1), (2) of the Urysohn integral equation, using the Green-Rvachov quasi-function instead of the Green function. Let the domain Ω be bounded by a finite number of line segments $\sigma_i(x) = 0$ where $\sigma_i(x)$ is an elementary function, $i = 1, 2, \dots, n$. Then, using the constructive apparatus of the theory of R -functions, we can construct such an elementary function in the form of a single analytical expression $\omega(x)$, that:

$$\text{a) } \omega(x) > 0 \text{ in } \Omega; \quad \text{b) } \omega(x) = 0 \text{ on } \partial\Omega; \quad \text{c) } |\nabla\omega(x)| \neq 0 \text{ on } \partial\Omega.$$

The Green-Rvachov quasi-function of the first boundary value problem for the Laplace in \mathbb{R}^2 is the function $Q_2(x, s) = \frac{1}{2\pi} \ln \sqrt{1 + \frac{4\omega(x)\omega(s)}{r^2}}$, where $x = (x_1, x_2)$, $s = (s_1, s_2)$, $r = |x - s| = \sqrt{(x_1 - s_1)^2 + (x_2 - s_2)^2}$.

We obtain that the problem (1), (2) is equivalent to the integral equation:

$$u(x) = \int_{\Omega} P(x, s, u(s)) ds, \quad (3)$$

where

$$P(x, s, u(s)) = K_2(x, s)u(s) + Q_2(x, s)f(s, u(s)),$$

$$K_2(x, s) = -\frac{1}{2\pi} \left(\frac{\partial^2 \tilde{g}}{\partial s_1^2}(x, s) + \frac{\partial^2 \tilde{g}}{\partial s_2^2}(x, s) \right), \quad \tilde{g}(x, s) = \ln \frac{1}{\sqrt{r^2 + 4\omega(x)\omega(s)}}.$$

A computational experiment was conducted for $f(x, u) = \frac{1}{5} + \frac{1}{4}u^{\frac{3}{4}}$, which arises, in particular, when studying the selection migration model in population genetics.

FEDOSIEIENKO, Andrii

NAUMEYKO, Igor

Kharkiv National University of Radio Electronics, Ukraine

LEARNING AND TEACHING AFTER WAR: RECOVERY STRATEGIES AND CRISIS MANAGEMENT

Purpose: After the conflict ends, society is faced in front of the task of rebuilding the education system and providing qualified education for younger generations. It is important to anticipate potential crises and develop strategies to overcome catastrophes.

Results: The restoration of the education and teaching system after the war can be viewed as a process of an open system's self-organization. This means that the system has ability to adapt and evolve in response to changes in its environment.

The restoration of the education system may go through evolutionary and revolutionary stages. The former involves improvement and development of existing structures, while the latter includes radical changes and transformations to another structures.

To restore the education system after the war, it is important to analyse potential crisis points and develop strategies to prevent them. The impact of such crises can be similar to the "butterfly effect" - even small changes can have serious consequences.

Managing Crisis Situations.

One method of solving crisis situations is to create conditions for self-organization of educational system. This may include the development of positive feedback and iterative processes.

To develop optimal strategies, the regulator should use the Bellman principle, and to describe the entire process, the apparatus of Markov processes can be used.

Use of scientific models: Utilizing scientific models, including catastrophe theory, can help identify potential crises and develop strategies to postpone or, even, avoid them.

Differential equations for management: The using of differential equations allows us describe changes in the education system and determine optimal strategies.

The utility/benefit/loss function of the system is presented as

$$X = f(y, \alpha, \beta, \dots, \Omega),$$

where y is the system outputs; $\alpha, \beta, \dots, \Omega$ are control parameters. Using the apparatus of catastrophe theory allows to create a model with a minimum information about f .

Conclusions: Wars and crisis situations can have a significant impact on the education and teaching system. It is important to view these processes as opportunities for the self-organization and development of the system. The use of scientific models and crisis management strategies can help overcome catastrophes and restore the education system after the war.

HONCHARENKO, Vadym

<https://orcid.org/0009-0002-0370-3361>

YESILEVSKYI, Valentyn

<https://orcid.org/0000-0002-5935-1505>

Kharkiv National University of Radio Electronics, Ukraine

LEARNING MODERN CONTROL THEORY IN UKRAINIAN TECHNICAL UNIVERSITIES

The modern world heavily relies on complicated electronic systems that work automatically. Control theory provides a wide range of theoretical apparatus that is a base for practical applications. Control theory plays a central role in industrial automation, aerospace, and aviation; it is critical in power generation and distribution systems; consumer electronics and many other everyday things are utilizing control theory.

Control theory started to develop alongside industrialization in the XVIII century, then it was based on a burst of math and physics science. This part of control theory is a classic, basic part, that heavily utilizes mathematical models of controlled objects and their environment. So far prerequisites for it are linear algebra, calculus, and differential equations.

The advancement of technology, computational power, and the availability of data have led to more sophisticated control systems, including adaptive control, predictive control, and machine learning-based control. This new generation control theory involves new directions in math and computer science, such as fuzzy logic, model predictive control, and machine learning.

Modern science progress is in many ways empowered by the progress of computers, which makes it possible to simulate the environment, processes, and objects. It drastically increases the speed of hypothesis verification and cuts the experiment costs compared to the real world. Numerical analysis and programming are essential basic qualifications to be able to work in this domain.

The most recent successful direction that outperforms previous achievements is machine learning. Machine learning reaches amazing results in many fields; the most noticeable achievements are in computer vision and natural language processing. For control theory reinforcement learning is such a subfield of machine learning.

Reinforcement learning has gained significant attention and applicability in the field of control theory. Reinforcement learning provides a framework for developing controllers and decision-making policies that can adapt to complex and uncertain environments.

While reinforcement learning offers significant advantages for control theory, it also presents new challenges, such as the need for large amounts of data and computational resources. Additionally, ensuring the safety and stability of reinforcement learning-based control systems in real-world applications is an ongoing area of research and development.

HORODOV, Vitalii

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

TEACHER'S PERSONAL WEBSITE

The **purpose** of the research. The necessity of having their own website for teachers in modern realities of distance and mixed learning is one of the opportunities to motivate pupils, arouse their interest for their own subject, exchange and share interesting information with colleagues. This also applies to the period of development of our society after the war and during the peace, when teachers and pupils will have more opportunities to communicate offline, but having the website will help to expand the possibilities of extracurricular learning, develop online communication with colleagues from around the world, and demonstrate the results of work with pupils. The **results** of the research. Most of modern teachers do not need to be convinced in the necessity to create their own web-resource, because with its help, a teacher can establish interaction with pupils, colleagues and pupils' parents, to organize distance, flipped or mixed learning, and finally, nowadays a website or blog serves as a visiting card of a specialist. All of this is more relevant for the computer science teacher, but whether teachers of the other subjects are ready to create, use, and fill their websites with interesting, relevant information is something that we will find out by studying both the latest trends in this area and the results of a survey among pupils and teachers. These days distance learning technologies and the usage of transferring large amounts of information between pupils and teachers through the Internet have become widely popular. Nowadays because of having such a foundation in the form of a large amount of ICT-competencies of the various subjects teachers, there is a certain necessity to modernize the approach to their pedagogical activities, because being relevant, competitive, staying in the process of constant self-improvement, being an active participant in the scientific life in their subject becomes the main principles for the modern NUSh teacher. The content of personal Internet resources requires the teacher's original developments, innovative experience in their creation and implementation, as well as a willingness to share them with colleagues. It should be emphasized that such personal websites should also attract pupils. Surveys among pupils and teachers have shown that pupils are very interested in the idea of creating their own websites by every teacher, which will significantly increase pupils' attention to the subject. Teachers are now aware of the possibilities of online resources for creating websites such as Google Sites, Wix, Canva, and Rainerdforest. The research has revealed that there is a necessity to expand the teachers' competencies of different subjects in creating their own websites, as pupils are interested in the prospect of such activities of their teachers, such as introducing a blog related to their own subject of teaching on their website. At present, there is a necessity to develop certain recommendations for creating and filling a teacher's website. The **conclusion** of the research. The surveys among teachers and pupils suggest that there is a necessity to expand the teachers' competencies of various subjects in creating their own websites, as pupils are interested in the prospect of such activities of their teachers as the introduction of a blog related to their own subject of teaching on their website. At present, there is a necessity to develop certain recommendations for creating and filling a teacher's website.

HORODOVA, Alina

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE PECULIARITIES OF THE SCHOOLCHILDRENS' RETENTION OF ATTENTION AFTER THE WAR AND DURING THE PEACE

The **purpose** of the research. The problem of the increasing of attention to the learning process among schoolchildren of different ages has been discussed for a long time, especially in distance and mixed learning. The problem of maintaining pupils' attention will continue to be an issue even after the wartime. Relying on the current trends in pedagogical activity and the large amount of ICT-competencies among teachers, it is possible to keep pupils' attention throughout the lesson and motivate them to be more active in learning the material.

The **results** of the research. Parents and teachers are increasingly complaining about pupils' inattention during the learning process. It is the lack of attention that can cause poor learning.

Attention is a mental state that characterizes the intensity of cognitive activity and is expressed in its concentration on a relatively narrow area (action, object, phenomenon). Attention is an important condition for effective activity, learning, work and behavior in general.

During offline learning, the teacher has many techniques and methods to draw the pupils' attention to the learning process, primarily there are some tactical and verbal actions. For example, looking into the eyes of a child who has turned away from the board, to ask something at close distance to a pupil, or forbidding something are impossible in distance learning. So how do you keep a child's attention, and is it necessary at all? Perhaps parents are already one of the main motivators for the learning process in this situation, but a teacher can also keep pupils' attention during the online lesson by following certain guidelines.

Nowadays, and especially during the peace, when many restrictions on offline learning will be just history, it is also worth to offer to children the educational content that will surprise them and arouse their interest and desire to delve deeper into the topic.

A creative, graphically well-formed approach to creating didactic materials for the lesson can help teachers stimulate pupils' attention during the lesson. The analysis of scientific and methodological sources suggests that the acquisition of deep teacher's knowledge in the field of graphic design is the formation of ideas about basic knowledge and its practical application based on graphic editors. In this regard, it is necessary to develop a certain approach or recommendations that teachers can actively use when creating and using graphic material for their lessons.

The **conclusion** of the research. The surveys among teachers and pupils suggest that it is necessary to propose an approach for the design of didactic materials that will significantly increase the retention of attention during their own lessons, as well as will help to expand the teacher's competencies in their educational activities.

HREBINKINA, Olena
SAMODAI, Valentina

<https://orcid.org/0000-0002-4043-5426>

A.S. Makarenko Sumy State Pedagogical University (Sumy, Ukraine)

STATIC FEATURES OF THE DEVELOPMENT OF THE TEA BUSINESS IN UKRAINE

The **aim** of this paper is to analyze the static features of the development of the tea business in Ukraine.

Results. Tea is a popular drink in Ukraine, and it creates demand for the import of this product. This can affect the country's trade balance and the volume of international trade.

In general, the impact of tea consumption on the economy of Ukraine is modest compared to other areas of the economy, but it can be significant for certain agricultural enterprises and enterprises that specialize in the production, packaging and sale of this product.

More than 20 tons of tea are sold in Ukraine every year, and each citizen uses approximately 0.5-0.6 kilograms of tea per year. Thus, in 2017, tea entered the consumer basket of Ukrainians for the first time, although in a small amount – 0.4 kilograms (for children under 6 years – 0.073 kilograms, from 6 to 18 years – 0.1 kilogram).

The COVID-19 pandemic, which broke out in 2020, had a significant impact on the tea market in Ukraine. Efforts to avoid infection have encouraged more people to pay attention to a healthy lifestyle and diet, including the use of tea. This consumer trend was predicted to lead to a rise in the popularity of herbal and fruit teas, as well as increased sales of niche varieties such as matcha and buckwheat teas.

The tea market in Ukraine developed steadily until 2022. The monetary volume of the market grew by an average of 5-10%, which was connected not so much with the increase in the supply of tea in Ukraine, but with the constant increase in prices.

Imported products accounted for 82.5% of the tea market in Ukraine. Domestic production mainly consists of packing tea purchased in India, Sri Lanka, China and other countries. Only tea from local herbal collections can be considered truly Ukrainian. Which are distributed across the Carpathian region. At the same time, there was a tendency to decrease the import of ready-made tea and an increase in the supply of local brands: “Tea of Ukraine”, “Monastyrskyi tea”, “Harmony of tea”, “Tetyanin Chai”.

Conclusions. Based on this, it can be noted that the business and sale of tea is developing more and more every year. Thus, it is very profitable to open a tea business, as it is in great demand today.

KALINICHENKO, Alina

Kharkiv National University of Radio Electronics, Ukraine

CONTROL OF THE MOBILE ROBOT

The **aim** is to create a control system for a mobile robot, based on a fuzzy logic, that allow a robot, moving at a constant speed, to avoid an obstacle on his way. The management system must clearly reflect the task set to the robot and allow to made adequate decisions in various non-standard situations.

Result. Mamdani's algorithm will be used to solve this task. The algorithm has a scientific interest because it works according to the "black box" principle. Formally, the Mamdani algorithm could be defined as follows:

- by the factors given values, their degree of belonging to different terms of the corresponding to linguistic variables could be determined, i.e., the phasification of the factors initial values could be carried out;
- using the knowledge base and the operations definition on fuzzy sets, a fuzzy set of values of the output indicator, if the input factors have given values, could be constructed;
- using the obtained fuzzy set, its defuzzification could be performed.

This allows us to come to the fact that a mobile robot with a fuzzy logic will work according to the following principle: data from sensors about the distance to the obstacle and the direction to it will be phased and processed according to the tabular rules, and also the dehazed and received data in the form of control signals will be sent to the robot drive.

Conclusions. In the modern world, the issue of a robotic and robotic systems in various industries is increasingly being raised. This helps to optimize the work of enterprises, speed up the production and sometimes even save the environment. Technical development is an integral part of evolution, it permeates all parts of a humanity life. Mobile robots may become an integral part of our lives in the future.

**KALINICHENKO, Anatolii
SIDOROV, Maxim**

Kharkiv National University of Radio Electronics in Kharkiv, Ukraine

**MODELING OF PROCESSES OF SPONTANEOUS IGNITION
USING ROTHE’S AND TWO-SIDED APPROXIMATION
METHODS**

The **aim** is to use the Rothe’s method in combination with the two-sided approximation method for the spontaneous ignition processes modeling. Self-ignition is inherent in bulk materials (grain, coal, etc.), since the heat accumulation occurs due to the oxidation reaction. So, it is possible to assume that there is an internal heat source in the embankment, therefore the mathematical model of self-ignition processes can be presented as an initial boundary value problem for a semilinear heat conduction equation, for solving which the above methods can be used.

Results. The spontaneous combustion process can be considered as heat transfer in a body with an internal heat source, but it is necessary to characterize this source by including its power as a term $f(T)$ in the heat conduction equation:

$$\frac{\partial T}{\partial t} = A \left(\frac{\partial^2 T}{\partial x_1^2} + \frac{\partial^2 T}{\partial x_2^2} \right) + f(T).$$

Since the heat appears in the embankment as an oxidation reaction result and accelerates this reaction, we can use an approximation based on the Arrhenius equation, according to which $f(T)$ is proportional to $e^{-\frac{E_a}{R(T+273)}}$, or e^θ , if we proceed to consider the temperature change function $\theta(x_1, x_2; t)$ and use the exponential decomposition proposed by Frank-Kamenetskii.

To solve the initial-boundary value problem for the specified equation, we select a modeling time interval at which we introduce a grid with a fixed step. We search for a solution according to the Rothe's method along the nodes of this grid. Using finite differences approximation of the partial derivative of T with respect to time, we obtain a sequence of boundary value problems that can be solved sequentially. Using the Green's function, each problem is reduced to the Hammerstein integral equation, for which, according to the method of two-sided approximations, we construct a conical invariant segment, the ends of which become the initial values for the iterative process of two-sided approximations.

The approximation to the exact solution at the corresponding time layer at each iteration is half of the sum of upper and lower approximations, while it is possible to estimate the error as maximum of their difference, so the iterative process should be continued until this value is less than 2ε (ε is the predetermined required accuracy).

Conclusions. The result of applying the Rothe's method in combination with the two-sided approximation method to the self-ignition modeling processes is a set of functions for the nodes of introduced grid at the modeling time interval, which depend only on spatial coordinates. Using them, it is possible to determine whether, during the simulation time, enough heat will accumulate in the embankment under study to cause an ignition, and to take measures to prevent it.

KHARCHENKO, Yaroslav

Kharkiv National University of Radio Electronics in Kharkiv, Ukraine

FRACTAL ANALYSIS OF BIOELECTRICAL REALIZATIONS

The **aim** of this research is to develop an automated methodology for classifying bioelectrical signals and model realizations of fractal processes using multifractal analysis techniques. Recent progress in microelectronics and computing have opened new opportunities for more precise analysis of these signals.

Multifractal analysis allows us to explore both global and local fractal properties, enhancing our understanding of complex bioelectrical processes. This research holds potential significance for medical diagnostics and scientific investigations.

Results. Self-similarity in random processes refers to the preservation of statistical properties as the time scale changes. To assess this self-similarity, the Hurst parameter, also known as the Hurst exponent or Hurst index, is widely used. This parameter helps determine the degree of correlation in a time series and whether the process exhibits self-similarity (fractality).

To calculate the Hurst parameter and determine self-similarity, the method of multifractal detrended fluctuation analysis (MFDFA) is commonly employed. This method allows for the removal of trends or systematic fluctuations from a time series, leaving only fluctuations that contain information about self-similarity.

In our research, we investigated electroencephalograms (EEG) of laboratory animals, segmented into phases of wakefulness, slow-wave sleep, and rapid eye movement (REM) sleep.

The fractal analysis revealed significant differences in multifractal characteristics among the studied sleep phases, underscoring the importance of multifractal analysis in the study of biological processes.

Conclusions. The study demonstrated that multifractal characteristics can effectively distinguish between model fractal time series and bioelectrical signals. This capability opens avenues for distinguishing different disease groups or phases of physiological conditions.

Consequently, this method holds promise in medicine for detecting various anomalies, conducting tomographic studies, analyzing EEG and EKG signals, among other applications. It's important to note that for optimal utilization of the fluctuation analysis method, consultation with a medical expert is advisable.

In summary, the research results indicate that multifractal analysis methods, particularly through DFA, offer a valuable approach for classifying and understanding complex time series data, which has significant implications for medical diagnostics and signal analysis.

KLIMOV, Maksym

<http://orcid.org/0009-0009-3028-7026>

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

MICROGREENS EQUIPMENT: A STEM APPROACH FOR INTERDISCIPLINARY EDUCATION

STEM education – an integrated approach to Science, Technology, Engineering, and Mathematics – is critical in shaping the minds of the future. This educational strategy emphasizes the importance of providing real-world, hands-on experiences that inspire curiosity, innovation, and problem-solving skills in students. Amidst the backdrop of a changing world and the need for adaptive learning methodologies, this paper introduces a practical tool that contributes to the STEM educational model: a Microgreens Cultivation Equipment.

The Microgreens Cultivation Equipment is a classroom-friendly system designed for the purpose of growing microgreens – tiny, nutrient-rich green leafy vegetables that are easy and quick to grow. This innovative tool not only provides a platform for demonstrating scientific concepts but also enables the interlinking of various STEM disciplines in a cohesive, tangible manner. Its use in the educational setting promotes experiential learning, nurtures an appreciation for life sciences, and provides an entry point to discussions about sustainable food systems.

STEM education, integral for fostering critical thinking and problem-solving, is enriched by the Microgreens Cultivation Equipment. This tool merges various scientific principles, offering students a cohesive learning experience.

In Physics, the equipment elucidates concepts like photosynthesis and heat transfer, while in Chemistry, it brings to life reactions such as photosynthesis and nutrient uptake. Biology lessons are enriched by observing plant development stages firsthand.

Moreover, Computer Science becomes tangible as information technologies like sensors and data analytics are employed for monitoring and predicting microgreens growth. This multi-faceted approach allows students to witness the interconnectedness of these fields, fostering a holistic understanding and appreciation of STEM education.

In conclusion, the Microgreens Cultivation Equipment serves as a practical and effective STEM education tool, offering students an interdisciplinary learning experience. Its success lies in its ability to seamlessly integrate various scientific principles within a tangible, real-world context.

Furthermore, its application in the educational setting extends beyond the classroom. In post-war societies, this tool can help in rebuilding and fortifying education systems, encouraging scientific curiosity and critical thinking in students.

In times of peace, it fosters a deeper understanding and appreciation of sustainable food systems, emphasizing the role of science and technology in addressing global challenges. Thus, this equipment represents a small but significant step towards the future of STEM education, demonstrating its potential for societal impact and contribution to peace-building efforts.

KLOKOVA, Kateryna

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE CHALLENGES OF TEACHING *BIOLOGY* IN WAR-TORN UKRAINE

The **aim** of this paper is to analyze the challenges of teaching *Biology* in war-torn Ukraine.

Results. The teaching of Biology in schools located in the war-torn Ukraine is posing unique challenges to both educators and students. The educational sector has been severely impacted by the ongoing violence, leading to insufficient funding, damage to infrastructure, and disruptions to the academic calendar. Despite these hindrances, it's crucial to continue giving significant attention to Biology education.

Biology is an important topic that can aid students in understanding their surroundings, and its concepts are used in a variety of fields. Yet, adaptability and innovation are needed when educating people about biology in a time of conflict. To meet the shifting conditions and guarantee that students obtain a quality education despite the difficulties, teachers must modify their teaching strategies. One of the most difficult challenges for biology instruction during times of war is a lack of resources. Textbooks, laboratory equipment, and other teaching aids are frequently missing from schools in war-torn areas.

Teachers will need to use their creativity and resourcefulness to devise new ways to teach biology in this situation. They can create their own teaching aids using items they already have on hand, and they can also use digital tools and internet platforms to improve their courses.

The security of instructors and students presents another difficulty while teaching biology in a combat zone. It may be challenging to perform lab research or even hold regular classes in schools because of the risk of shelling or other violent acts. In these situations, teachers must put the safety of their students first and employ different teaching strategies, such as online courses or lecture recordings, to teach biology.

Notwithstanding the difficulties, it is essential for Ukraine's future to educate biology while there is hostilities. Those who are interested in jobs in environmental science, health, or agriculture will benefit from having a solid understanding of biology. Also, it can promote critical thinking abilities and a deeper comprehension of the environment.

Conclusions. Teaching biology in schools in Ukraine during a war poses distinct difficulties, including inadequate resources, impaired facilities, and interruptions in the academic schedule. However, it is essential to uphold a steadfast commitment to science education in order to provide students with a high-quality education.

Teachers must adjust their teaching strategies to suit the ever-changing conditions while placing their students' welfare first. Despite the obstacles, an unwavering priority on biology education is indispensable for Ukraine's prospective development.

KORZHOV, Serhii
YESILEVSKYI, Valentyn

Kharkiv National University of Radioelectronics, Ukraine

**THE MAIN DIRECTIONS OF REFORMS IN ONLINE STUDYING
OF STUDENTS IN IMAGE AND VIDEO PROCESSING AT
UNIVERSITIES IN UKRAINE**

In recent years, significant breakthroughs have been achieved in the development of neural networks; they have become more powerful and flexible tools for solving object recognition problems. In particular, innovative architectures using a combination of convolutional, recurrent, and transform layers can significantly improve the accuracy and speed of object recognition. These technological advances open up vast opportunities for the application of complex neural networks in various fields, including medicine, security and many others. Learning using such networks can help realize these new possibilities in practice and research.

Among the shortcomings of old courses aimed at studying object recognition methods, the following key aspects should be highlighted: outdated methodology; most existing courses are based on outdated methods and algorithms that do not take into account the latest advances in machine learning. This limits students' access to advanced tools and technologies; older courses provide a limited set of solutions for object recognition, not taking into account the variety of tasks and objects that may arise in different fields of activity. In the modern world, universal and adaptive approaches to object recognition are needed.

In general, choosing Python as the main programming guarantees accessibility, performance and a wide range of possibilities for students and professionals in the field, because Python has support for deep learning: Python has a number of powerful libraries such as TensorFlow, Keras, and PyTorch. They make it easy to build and train neural networks for object recognition.

For the course lectures I would suggest: introduction to object recognition, basics of machine learning for object recognition, deep learning and neural networks. For the theoretical tasks it will be: construction of a neural network and optimization of deep network. Also, as educational tasks I would suggest: development of a simple object classifier, localization of objects on image. The theme for the final project will be: "Automatic recognition of objects in the video stream", students will need to develop a system capable of recognizing objects in video.

Our course modernizes object recognition education using Python for accessibility and deep learning libraries. It enhances technical skills and encourages research, culminating in a research paper project. We prepare individuals to apply advanced technologies in the AI-driven modern world, emphasizing the importance of object recognition.

KOSHAK, Bohdan

<https://orcid.org/0000-0002-8470-4421>

FRANCHUK, Maksym

<https://orcid.org/0000-0002-2708-3614>

BILUKHA, Anastasia

<https://orcid.org/0000-0003-4116-8611>

I. Horbachevsky Ternopil National Medical University, Ukraine

STUDENT RESEARCH CLUBS AS A MEANS OF ENHANCING PRACTICAL SKILLS IN THE CONTEXT OF BLENDED AND DISTANCE LEARNING

Introduction: Distance learning has become an integral part of the modern educational landscape. In Ukraine, the transition to online education commenced in 2020 during the COVID-19 pandemic, and it persisted due to the full-scale invasion by russia in 2022. While distance learning offers several advantages, it poses challenges, particularly for disciplines that rely heavily on practical experience, such as medical education. In this context, student research clubs have emerged as a practical solution to bridge the gap between theory and practice.

The **aim** of this article is to investigate the role of student research clubs in enhancing practical skills for students in the context of blended and distance learning, particularly in the field of medical education.

Methods: We conducted a comprehensive study involving 77 students actively engaged in a student research club from 2020 to 2023. The participants completed surveys and questionnaires, providing insights into the role of student research clubs in the context of blended and distance learning.

Results: Our study revealed that student research clubs played a pivotal role in compensating for the limitations imposed by distance learning. During the pandemic, as well as in times of ongoing conflict, students were unable to access clinical settings. However, the student research club adapted to these challenges, utilizing software to demonstrate patient examinations and assessments online. The statistical data indicated a high level of satisfaction among participants ($p < 0,05$, $\chi^2 = 57,79$), with a significant number of students highlighting the crucial role the club played in maintaining and enhancing their practical skills.

Statistical analysis indicated a significant difference in both the average grade and the practical skills assessment between students who participated in the club and those who solely pursued traditional forms of learning. Specifically, students engaged in the research club exhibited a statistically higher average grade, with an average score of 4.2 out of 5, compared to students in the traditional learning format with an average score of 3.6. Furthermore, the students who actively participated in the research club displayed a more substantial improvement in their practical skills, receiving an average practical skills assessment score of 4.5 out of 5, whereas their counterparts in traditional learning achieved an average score of 3.9.

These statistical findings underscore the effectiveness of student research clubs in enhancing both theoretical knowledge and practical skills, particularly in the challenging context of blended and distance learning. The discrepancy in academic performance and practical skills assessments provides compelling evidence of the positive impact of these clubs on students' education and readiness for future healthcare roles.

Discussion: Student research clubs proved to be instrumental in facilitating practical skill development during distance learning. The transition to online sessions allowed students to actively engage in practical work, bridging the gap between theory and application. By simulating clinical experiences virtually, students were able to refine their skills and gain valuable insights into patient care. The positive feedback and statistical data confirm the effectiveness of this approach in ensuring that practical knowledge is not compromised during times of crisis.

Conclusion: In a world marked by the challenges of distance learning due to pandemics and conflicts, student research clubs have emerged as a vital component of medical education. These clubs have successfully facilitated the enhancement of practical skills and allowed students to maintain their connection to the clinical aspect of their education. The results of our study emphasize the importance of innovative approaches to bridge the gap between theory and practice in the context of blended and distance learning, ensuring that students are well-prepared for their future roles in healthcare.

KOSTENKO, Marharyta*Kharkiv National University of Radio Electronics, Ukraine*

**APPLICATION OF THE METHOD CHARACTERISTICS AT
COMPUTER MODELING TRANSIENT REGIMES OF GAS FLOW
ALONG THE PIPELINE SECTION**

The **aim** of this research is to apply the explicit characteristics method to the mathematical model of non-isothermal unsteady gas flow (NIUGF) within a pipeline segment (PS), to get the fundamental equations for the mathematical model, taking into account the kinetic energy, and to estimate the disturbance wave propagation time.

This research relevance is the modeling complex systems in the modern world helps obtain an accurate characterization of the studied system and predict its behavior in emergency and non-standard situations. The gas transportation by pipelines is still the most efficient way in the world, so this research is an important contribution to the energy development.

The PS, acting in a non-stationary operation mode, was considered. This operation mode is related to a sudden change in the conditions at the end of the pipeline section at the initial time. NIUGF with a given initial distribution is described by the mathematical model using a quasi-linear system of partial differential equations obtained from the general gas dynamics, that considers a kinetic energy and has given gas and environmental parameters.

The equations roots of the mathematical model were found, that take the following form:

$$\lambda_{1,3} = \frac{1}{\pm \frac{2\alpha SWT}{P} + \frac{2C_p P}{\alpha SW}}, \quad \lambda_2 = \frac{1}{\sqrt{\alpha ST} + \alpha ST \frac{W}{P}},$$

the characteristics equations were obtained using the characteristics method.

Results. The software product that allows you to conduct an experiment and calculate the necessary parameters of the gas flow along the PS, including estimating the propagation time of the wave disturbance, was created by the Wolfram Mathematica 10.0 mathematical package. During the experiment, the performance of the characteristic method algorithm was verified, in the case, when there is a change in the commercial flow rate value at the pipeline segment end, and the dependence of the specific mass flow rate q , the pressure P , and the temperature T on the number of discretization points N was also studied. Specifically, the disturbance wave propagation time, with a discretization points number of $N = 14$, was determined as $t = 0,0877$ seconds, and for the breaking points number $N = 56$, the disturbance wave propagation time was $t = 0,0873$ seconds.

Conclusions. A numerical experiment of the non-steady-state gas flow computer simulation was conducted, and the gas flow parameters behavior when connecting to a large consumer at the segment end was studied. The obtained results could be valuable for the gas transportation system design and management to optimize and automate it.

KOVALCHUK, Sofiia

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

TAXONOMIC AND PHYTOCENOTIC FEATURES OF BRASSICACEAE REPRESENTATIVES OF THE FLORA OF KHARKIV REGION

Purpose: to investigate the taxonomic and phytocenotic characteristics of the Brassicaceae family, which are widespread in the territory of Kharkiv region.

Results: during the research, it was found that 82 representatives of the Brassicaceae family, from 31 genera, grow in natural conditions on the territory of Kharkiv region. The leading genera include: Erysimum, has 8 species living in the Kharkiv region; Brassica – 6 species; Alyssum – 6 species; Cardamine – 6 species; Rorippa – 6; Sisymbrium – 6; Lepidium – 4.

Morphological analysis of Brassicaceae showed that the studied species are represented by herbaceous plants, among which hemicryptophytes predominate – 48.8%, therophytes – 40%, therophytes or biennial hemicryptophytes – (11%).

During the phytocenotic analysis, it was found that cruciferous flowers of the Kharkiv region can be found in most terrestrial phytocenoses. 27 species live near roads; 21 species of cruciferous plants can be found on the slopes; 18 species live in wet places (flooded forests, meadows, wetlands); 15 representatives live in the fields; 12 species grow in gardens, orchards and flower gardens; 11 species – in forests, on the edges of forests and in forests; also 11 species grow near human settlements and on pastures; 10 representatives are found in meadows; in the steppes – 9 species; as well as on the banks of rivers - also 9 representatives; 7 species of cruciferous plants can be found on the chalk outcrops of the Oskil, Vovcha, Siverskyi Donets and Verkhnia Dvorichna rivers; 7 representatives also grow in crops and sand; the smallest number of species is found in littered, disturbed places and near railway tracks – 5.

Also, it was divided the studied representatives according to their economic importance. We got 10 groups: the largest is the group of honey plants, it has 40 species. The group of weeds, consisting of 38 studied plant species, turned out to be a little smaller. Medicinal ones include 29 species; for feed - 25 representatives; 23 species have nutritional value; there are 22 types of fats and oils; 21 types of investigated cabbages are included in the decorative ones; vitamin consists of 8 types; there are 3 types of coloring value; there are also 3 types of technical significance.

Conclusion: during the taxonomic inventory, it was found that species that have changed their scientific names make up 24.4% of the total number of studied species. *Raphanus raphanistrum* subsp. *sativus* (L.) used to be called *Raphanus sativus* L.; *Lepidium draba* L. belonged to a different genus, so it was called *Cardaria draba* (L.) Desv.; *Noccaea perfoliata* (L.) Al-Shehbaz was called *Thlaspi perfoliatum* L. because it also belonged to another genus. A large number of species of the genus *Cardamine* had other species and generic names: *Cardamine pratensis* subsp. *paludosa* (Knaf) Celak. (*Cardamine dentata* Schult.), *Cardamine bulbifera* Crantz (*Dentaria budbifera* L.), *Cardamine quinquefolia* (M. Bieb.) Benth. & Hook.f. ex Schmalh. (*Dentaria quinquefolia* Bieb.).

KRAVTSOV, Maksym

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

BASIC FEATURES OF AUDIO EDITORS

The **aim** of the presented paper is to analyze the basic features of audio editors.

Results. An audio editor is software designed to work with digital sound. Sound in audio editors is represented as a chain of waves identical in shape to acoustic waves. Thus, audio editors are programs that allow you to work with sound, or rather its digital representation.

There are basic and additional features of sound editors. The basic features include recording and playback of sound, and editing. Additional features include the use of various sound effects, which are realized with the help of integrated or plug-in modules.

The tasks that can be solved using audio editors can be very diverse, depending on the specific needs of the user. Some of them include:

- 1.** Editing audio files to create various projects such as music, podcasts, radio shows, etc. Editors allow you to trim and merge different parts of an audio file to create new files. People can use audio editors to create their own music mixes, remixes, and compilations of their favorite tracks.
- 2.** Remove noise from audio files, such as traffic noise, computer noise, wind noise, room noise, etc. Audio editors are used to improve the sound in your videos by removing unwanted noise and making other changes to make the sound better.
- 3.** Recording and editing sounds for video files such as movies, commercials, short films, etc. Audio editors allow you to record sound from a microphone or other audio source. You can use the editors to change the volume, tone, effects, add echo, reverb, and other sound effects.
- 4.** Equalize: You can use the equalizer to adjust the frequencies of the sound to achieve better sound quality.
- 5.** Edit sound for games, including creating sound effects and sound tracks.
- 6.** Prepare soundtracks for use in live performances such as concerts, theater, musicals, etc.
- 7.** Recording and editing audio files for personal use: people use audio editors to change the volume, pitch, and other audio parameters in their songs, audiobooks or video tutorials, and other audio files.
- 8.** Editing audio files for use in various well-known services such as YouTube, Spotify, SoundCloud, and other platforms.
- 9.** Edit various audio parameters such as volume, pitch, balance, etc.
- 10.** Synchronize audio with video: The editors allow you to add and edit audio tracks to video files, making them synchronized.
- 11.** Save and export: After editing is complete, audio files can be saved in various formats and exported for use in different projects. Most audio editors support a variety of file formats, such as MP3, WAV, AIFF, FLAC, and others.

- 12.** Display the audio signal: Audio data is graphically represented in the form of a waveform. A program window with a graphical representation of such a waveform is called a track or audio track. Usually, editors allow you to change the scale of the track display, with the ability to change both the time resolution (horizontal axis) and the sound amplitude resolution (vertical axis). It is also possible to display the audio track as a spectrogram. In this case, the frequency of the signal is plotted on the vertical axis, and the signal amplitude is displayed in intensity or color.
- 13.** Sound Analysis: Various tools can be used to analyze sound: Spectrum analyzer, sound level meter, phase indicator.
- 14.** Use of MIDI technology. Some audio editors can be used in conjunction with synthesizers that support the MIDI interface to create and edit sound samples. Using the MIDI interface, you can move sample sounds from the synthesizer's memory to the audio editor and back again. You can also turn on sound playback in the editor by sending a command via the MIDI interface.

Conclusions. The most popular sound editors today are the following: Sound Forge, Adobe Audition, Wavelab, Audacity, Cubase, Studio one, FL Studio. These programs have similar basic principles of operation.

KRAVTSOVA, Mariia

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

LEARNING AND TEACHING: AFTER WAR AND DURING PEACE

“How could you think about school lessons and studying? Missiles attack every day...” It is really difficult to imagine the educational process during a war. Let’s compare doing sums and learning alphabets with a threat of the World War III, economic crisis, famine and expecting of cold winter without possibility of heating. While people are worrying about their surviving, Minister of Education makes a decision to renew the educational process everywhere except the regions where fighting continues. It is about Ukraine today and South Korea in 1950-s. In 2020, the grandson of the Minister of Education of South Korea Woody Pike wrote about this experience, which he considers useful, for an international independent publication on education hechingerreport.org.

“South Korea’s commitment to learning did not fade after the war, and its almost myopic, even maniacal, focus on education helped transform the country in a single generation. In 1945, the country’s literacy rate was 22 percent. It now hovers around 99 percent, one of the highest literacy rates in the world. It is a perennial leader on international academic assessments like TIMMS and PISA. South Koreans commonly assert that education is the reason their country has grown from one of the poorest in the world to the 12th largest economy, and increased the average lifespan of its citizens from 35 years in 1950 to 83 years today. George Paik, the audacious Minister of Education who instructed schools to reopen all those years ago, did not create South Korea’s commitment to education; he was a reflection of it” (<https://hechingerreport.org/opinion-what-the-u-s-can-learn-about-education-during-crisis-from-south-koreas-wartime-example/>). If we consider this article, we can see the main strategy of the government. Education was the priority. It was the main idea. Why? Because only in such way it is possible to rise up from the ruins. According to statistics 3793 educational institutions suffered from bombing and fire. 365 of them are completely destroyed (<https://saveschools.in.ua/>). In 2022 the organization of educational process was a meaningful issue because of the Russian invasion of Ukraine. The same situation is in 2023. And after the end of Russian invasion of Ukraine it will be the challenge too. Firstly, taking into account the experience of South Korea we need to pay attention to safety of all participants during the studying. Students had to study even in the caves and cemeteries because they hoped that was not dangerous. The shelter must comply with all the recommendations and regulations specified in the letter of the State Emergency Service of Ukraine (https://osvita.ua/legislation/Ser_osv/86706/). In addition to these workplaces of all participants had to be equipped with the Internet, various gadgets, textbooks, etc. Secondly, psychological support is very important too. For example, in South Korea, a teacher was a mentor for students, but sometimes teachers also need to ask somebody for help. Finally, realization of this idea will not be possible without motivation and support for teachers. The teacher needs more time and less “paperwork” to create the lessons’ quality higher and more interesting. If we talk about post-war planning the educational process, we need to remember about all these requirements. Without the focus on education, it is possible to change nothing for better. Because with the low country’s literacy rate it is impossible to renew and develop our country in the future. The main tasks are safety and motivation to study and teach, being ready to support students and teachers mentally and financially.

KRICHFALOVSHIY, Oleksandr

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

CHALLENGES AND STRATEGIES FOR EDUCATION IN TIMES OF WAR

Teaching during times of war can be a challenging and complex task. In war-affected areas, education systems often suffer due to the destruction of infrastructure, displacement of populations, and the overall disruption caused by conflict. However, education remains crucial for the well-being and future prospects of individuals, communities, and societies, even in times of war. Here are some key aspects to consider when discussing teaching during war:

- **Safety and Security:** Ensuring the safety and security of students and teachers is of paramount importance. Schools may become targets during conflicts, making it essential to establish safe learning environments and implement security measures.
- **Access to Education:** War can severely limit access to education. Schools may be damaged or destroyed, and students and teachers may be displaced. Efforts must be made to establish temporary learning spaces, provide education materials, and reach out to marginalized groups, such as refugees or internally displaced people, who may face additional challenges in accessing education.
- **Psychological Support:** War often takes a toll on the mental health and well-being of students and teachers. Providing psychological support and counseling services can help address trauma, reduce anxiety, and create a supportive environment for learning.
- **Adapted Curriculum:** The curriculum may need to be adapted to the realities of war. This could include incorporating peace education, conflict resolution skills, and awareness of human rights and humanitarian principles. The curriculum should also be flexible to accommodate interruptions and allow for catch-up opportunities.
- **Teacher Training and Support:** Teachers play a critical role in providing education during war. They may require specialized training to address the unique challenges they face, such as trauma-informed teaching practices, classroom management in volatile environments, and working with diverse and displaced student populations. Ongoing support and professional development opportunities are crucial to help teachers cope with the demands of their roles.
- **Partnerships and Coordination:** Collaboration between education authorities, NGOs, community organizations, and international agencies is essential to coordinate efforts, share resources, and maximize the impact of education interventions during war. Working together can help mitigate duplication, ensure effective resource allocation, and promote a holistic approach to education in crisis situations.
- **Post-war Transition:** As conflicts subside, the transition from war to peace requires a comprehensive approach to education. Rebuilding damaged infrastructure, reintegrating displaced populations, and addressing the long-term effects of conflict on education systems are vital steps in the post-war reconstruction process.

Teaching during war is a challenging endeavor, but it remains a crucial investment in the future. By providing access to education, supporting teachers, and addressing the unique needs of students affected by conflict, it is possible to mitigate the long-term impact of war and contribute to the restoration of normalcy and stability in war-affected communities.

**KYT, Mykyta
YESILEVSKYI, Valentyn**

<http://orcid.org/0000-0002-5935-1505>

Kharkiv National University of Radio Electronics, Ukraine

COMPUTER VISION IN THE AGE OF AI: REIMAGINING EDUCATION AND METHODOLOGIES

The **aim** of this paper is to analyze the computer vision in the age of AI.

Results. The growing interest in artificial intelligence and higher levels of data processing creates a new dynamic in the field of Computer Vision (CV). The development of modern technologies, such as deep learning, has led to a change in teaching and learning CV approaches. Understanding how new intelligent algorithms can be used to solve CV problems is important and how this can affect our learning approaches is important.

Old Computer Vision courses have many problems. Older CV courses that have not been adapted to modern requirements and advances face a number of challenges.

The use of outdated methods and insufficient updating of materials. Lack of practical tasks that would develop students' skills. Lack of attention to ethical and legal aspects of CV use.

Python is the primary programming language for CV due to its rich libraries and frameworks such as OpenCV, scikit-learn, TensorFlow, and PyTorch. Using Python allows students to build, train, and validate CV models efficiently. It is a powerful tool for solving complex CV problems, making the study of this field more accessible and exciting.

The Computer Vision course for students includes five modules. In Module 1, students are introduced to the fundamentals and history of Computer Vision, with an emphasis on the connection to Machine Learning. Module 2 focuses on image processing skills.

Module 3 covers object recognition, exploring methods, and practical applications. Module 4 deepens knowledge in image segmentation, and Module 5 concludes the course with practical assignments and a summary.

Conclusions. The development of Computer Vision and the use of Python make learning this field more accessible, exciting, and practically oriented for students. The current course program will help to prepare a new generation of scientists in the field of Computer Vision, taking into account modern challenges and opportunities.

KYZYM, Victoriia
SAMODAI, Valentyna

<http://orcid.org/0000-0002-4043-5426>

A.S. Makarenko Sumy State Pedagogical University, Ukraine

EXPORT POSITIONS OF THE UKRAINIAN ECONOMY IN FIGURES

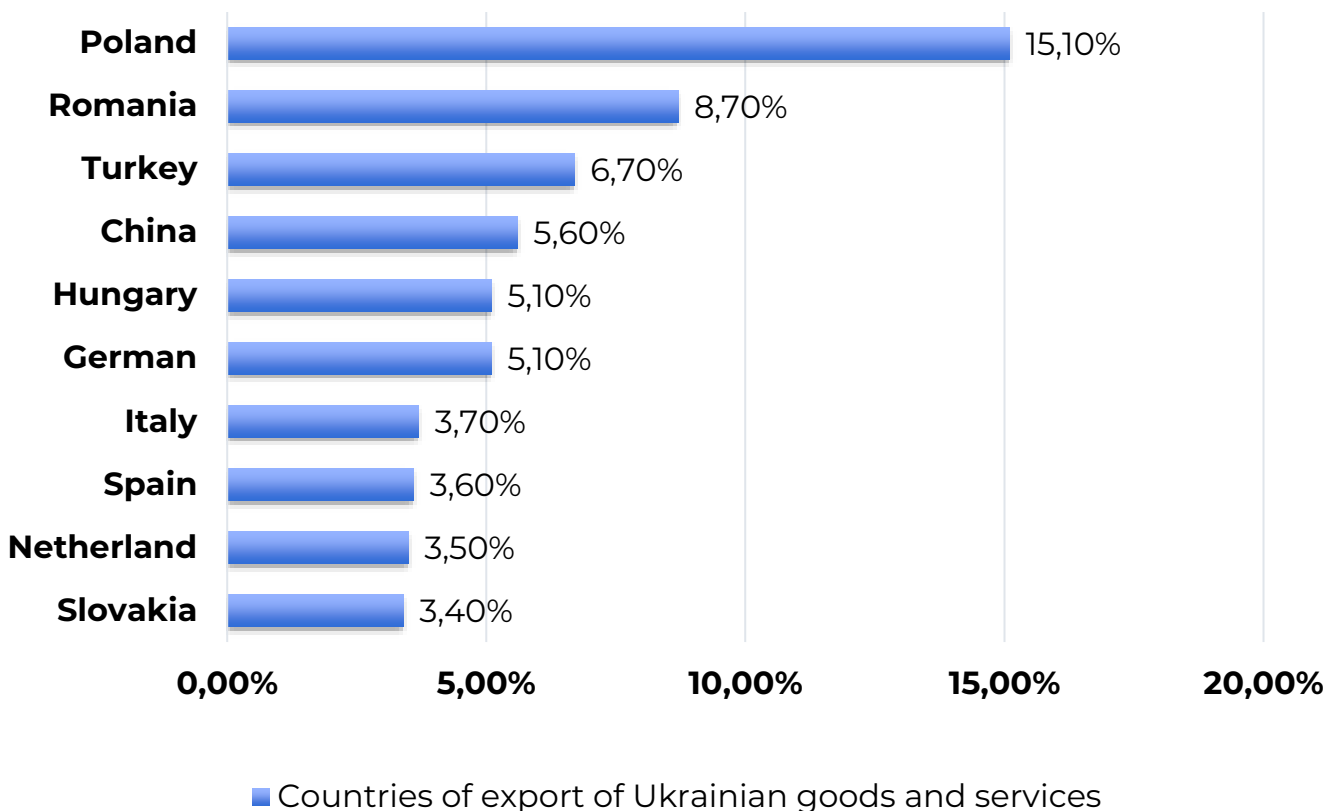
Exports are an integral part of international trade, in which goods produced in one country are shipped to another country for further sale or trade. The sale of such goods increases the total output of the producing country.

Therefore, it is advisable to investigate what goods and services Ukraine exported and compare the figures for 2021-2022 and determine the reasons for the decrease or increase in the number of exported goods.

According to the State Customs Service and Forbes calculations for the period 2021-2022, Ukraine exported most of its goods and services to the following countries: Poland and Romania. (Fig. 1).

Figure 1

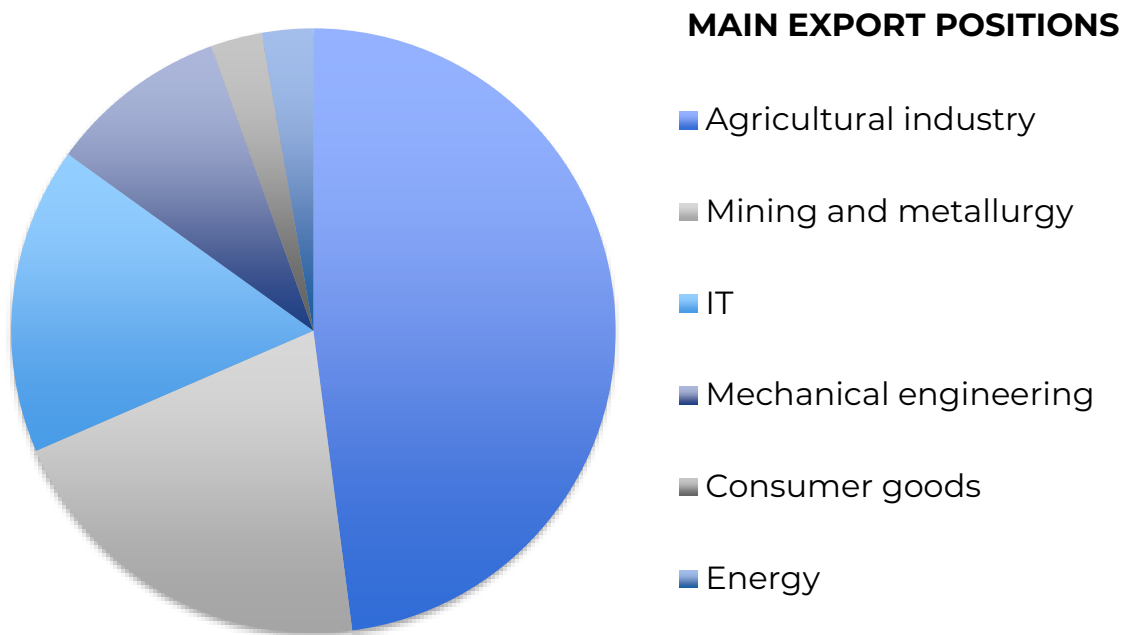
Countries to which Ukraine exported goods and services in 2022, according to the State Customs Service and Forbes calculations.



Most of the exported goods were agro-industrial products (35% - \$20.9 billion), followed by mining and metallurgical products (15% - \$9.1 billion), IT (12% - \$7.3 billion), machine building (7% - \$4.2 billion), consumer goods (2% - \$1.5 billion), and energy (2% - \$1 billion) (Fig. 2).

Figure 2

Main export items of goods and services of Ukraine in 2022 according to the State Customs Service and Forbes calculations.



If we compare the total exports of goods and services for 2021-2022, they are different and the reasons for this difference may be due to several factors, namely changes in the global economy, the COVID-19 pandemic and the outbreak of a full-scale war, all of which have seriously affected the export of goods and services. But Ukrainian companies have adapted to the circumstances caused by the war and continue to look for new markets in 2023.

To summarize, half of the exported goods are grain crops and metals. Ukraine exports the largest amount of goods and services to the European Union. Among other countries, Turkey and China are the largest buyers of Ukrainian products. It is the trade agreements between the EU and Ukraine and the fact that the European Union is the world's largest market that are the reasons why Ukrainian goods are exported to Western countries.

LUKASHOV, Dmytro

<http://orcid.org/0000-0001-6810-2167>

NAUMEYKO, Igor

<http://orcid.org/0000-0001-5259-1111>

Kharkiv National University of Radio Electronics, Ukraine

THE NECESSITY OF SPECIALIZING HARDWARE DEVICES TO OPTIMIZE DEEP LEARNING

Deep learning is, arguably, the most important part of the modern machine learning and, undoubtedly, the most advanced field of ML in terms of the results it has already achieved and the results that it promises to achieve in the near future. This field consists of two highly intertwined components: software and hardware, and both have had profound impact on deep learning over the years. Software has allowed development of models which have abilities to capture increasingly more and more complicated relationships in data, in the same time, hardware innovations in the field have satisfied larger and larger demands of the models for computational power. And now it is clear that the hardware industry shifts towards manufacturing processing units specifically optimized for neural networks and deep learning.

As the result, newly developed hardware must be optimized to fit specific requirements imposed by deep learning. Significant advances in such an optimization have already been done mainly by NVIDIA (with A and H GPU series) and Google (with tensor processing units). However, there is even more room for optimization. There are two phases through which each and every deep learning model goes: training and evaluation. Each phase has its own distinct needs, for example, the training phase requires a lot of memory to back propagate gradients through large computational graphs of neural networks and it also has to operate in higher precision to allow small updates of weights. The evaluation phase requires less memory and can operate in lower precision without significant losses in its performance. Most of the focus of the hardware industry is focused on optimizing the evaluation phase because a model spends most of its lifetime in this phase. And the only kind of optimization which is received by the training phase is an increase of memory of GPUs and TPUs as well as an increase of number of cores for matrix computations. This, indeed, allows training larger models, however, this makes chips much more expensive and requires more energy. This makes training models with performance comparable to Google, OpenAI and etc. unavailable for individuals and even big businesses and leaves the AI market available only for mega corporations.

Summing up, the split of hardware accelerators which are used for deep learning has already started. As of now, the most attention is paid towards the optimization of the evaluation phase. However, it will be beneficial to focus at least some attention towards the optimization of the training phase as well.

**MAKLIAKOV, Volodymyr
SERHIEIEV, Mykyta**

Kharkiv National University of Radio Electronics

ANALYSIS OF FRACTAL PROPERTIES OF AGGREGATE INFORMATION TRAFFIC

The **aim** is to model and numerically study the properties of additive self-similar traffic with varying degrees of heterogeneity. Numerous studies of network processes have shown that statistical characteristics have self-similarity properties. The reason for this effect lies in the distribution of files on servers, their sizes and typical behavior of users. It has been found that data flows, that initially do not have the self-similarity properties, become self-similar after passing through node processing servers and active network elements.

Results. Self-similar traffic has a special structure that is preserved upon scaling. There are always a few large spikes with a relatively small average traffic level. These bursts cause significant delays and packet losses, even if the total load from all flows is less than the maximum values. In the classical case of Poisson stream, medium-sized buffers will be sufficient. The queue may be formed for a short period of time, but over an extended period, the buffer will be cleared. However, in the case of self-similar traffic, queues tend to be longer.

A random process $X(t)$ is statistically self-similar with a self-similarity parameter H , if the process $a^{-H}X$ has the same second-order statistical properties as $X(t)$. The parameter H , $0 < H < 1$, is called the Hurst exponent and serves as a measure of self-similarity and long-term dependence in the random process. A value of $H = 0,5$ indicates the absence of long-term dependence.

The primary tool for studying and predicting the behavior of self-similar data flows is modeling. There are many models for self-similar traffic. The study considers a model of an aggregated self-similar traffic that takes into account the degree of self-similarity and the "heavy tails" of the distribution function. The model parameters include traffic intensity, the Hurst exponent, and the coefficient of variation, which represents heterogeneity (bursts) in the implementation.

Traffic realization is simulated according to the formula:

$$Y(t) = b \cdot e^{k \cdot X(t)},$$

where $X(t)$ is a series of fractal Gaussian noise with a Hurst exponent H ; b and k are parameters that control the frequency and magnitude of bursts. $X(t)$ follows a normal distribution, $Y(t)$ follows a log-normal distribution.

Conclusion. The article conducted a study of aggregate self-similar flows of various types. The research demonstrated that if at least one of the flows is self-similar, then the total flow acquires self-similarity properties. When multiple self-similar streams with different Hurst exponent values are summed, the resulting flow has the maximum exponent.

MANCHYNSKA, Nataliia

<http://orcid.org/0000-0002-8855-4029>

Kharkiv National University of Radio Electronics, Ukraine

ARTIFICIAL INTELLIGENCE IN EDUCATIONAL MATHEMATICS: OPPORTUNITIES AND THREATS

Mathematics is one of the fundamental sciences, which is the basis for many other disciplines. It requires students to think logically, analyze and be creative. In recent years, artificial intelligence (AI) has become increasingly accessible and powerful. This has created new opportunities for learning. By AI we mean chatbots, search services that answer questions in dialog mode.

Along with new opportunities, new threats arise, including violations of academic integrity, receiving incorrect answers, and students' dependence on search engines.

But along with these new opportunities, there are also new concerns. One of the biggest threats is that students may misuse AI and cheat in their homework, tests, or other assignments. This can result in students not really understanding the material. Sometimes the use of artificial intelligence can be detected by the teacher. This can have serious consequences for students, including disciplinary action.

Chatbots and search services are trained on a huge amount of text data, but they can still make mistakes. Students need to double-check the answers they receive. Relying solely on AI can lead to poor grades and a false sense of understanding.

AI can make tasks easier and faster. However, it can also lead to students becoming too dependent on technology. Students may not learn to solve problems on their own and may have difficulty completing tasks without using AI.

To minimize these threats, educators need to teach students about the risks of misusing AI. Students should be cautious when using AI and always verify the answers it provides.

Educators must teach students how to use AI safely and responsibly. Here are some tips for students:

- use AI only for additional assistance. Don't rely on AI to do all your tasks;
- double-check the answers provided by AI. Don't just accept them blindly;
- don't use AI to cheat or violate academic integrity;
- assess your skills and knowledge before using AI. If you're not sure how to use AI, ask your teacher for help.

The task of teachers is to develop students' skills of logical thinking, analysis and creativity so that they can solve problems independently. In order to properly assess students' knowledge, teachers can use different assessment methods that cannot be easily faked by AI. For example, open questions that require students to independently formulate answers; questions on the application of knowledge to solve real problems; projects and research. AI may not be able to generate answers that are original and creative.

It's important that AI is used by students to enhance their skills and knowledge, rather than relying on it completely.

MIKAUTADZE, Daria
YAKUNIN, Anatolii

<https://orcid.org/0000-0002-0635-1755>

O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine

APPLICATION OF DESMOS IN EDUCATION VECTOR ALGEBRA AND ANALYTICAL GEOMETRY

Vector algebra and analytical geometry have a significant role in education of specialists and provide the basis of mathematical concepts as necessary methods for modeling, analysis, and geometric objects transformation, their evaluation and optimization.

The **aims** of the research are to analyze the capabilities, advantages, and disadvantages using Desmos for interactive education through visualizing geometric objects and performing calculations.

Results. Desmos is a cloud-based mathematical modeling software environment that provides a wide range of interactive and multimedia tools for organizing classes for plotting graphs, diagrams, and geometric shapes, solving computational problems, and visualizing and exploring mathematical concepts in real-time. Some characteristics are important to single out. Desmos is contains a graphical calculator that allows you to calculate mathematical objects, operating with their geometric images and equations. It offers a set of Desmos Classroom tools that are purposefully designed to apply the learning process. It includes collaboration features allowing students to work together in different groups and share their work. Provides special tools that ensure accessibility and effectiveness of learning for all students, regardless of their characteristics.

The advantages of Desmos are its user-friendly interface, versatile graphing capabilities, and interactive and collaborative functions. Disadvantages of Desmos that narrow the range of its applications are the need for a stable Internet connection, limited configuration parameters and computing capabilities, and lack of full-fledged three-dimensional visualization. In addition, when using Desmos, there are sometimes difficulties in recording the condition of the task and checking the correctness of the solution.

Desmos allows you to efficiently operate with the main objects of vector algebra and analytic geometry. Build vectors, perform actions on them, and watch how a set of vectors changes in a certain area. Reproduce lines according to their equations, find their slope or cross-section, including in three dimensions. Build surfaces according to their equations and observe their intersection, find the gradient and normal vector at a given point on the surface, and animate the rotation of the surface. Depicted of several spatial bodies and observe surfaces, lines, and isolated intersection points, find the volume of the body or its surface area, and animate the rotation of the spatial body.

Conclusions. Desmos is a powerful and accessible interactive platform for learning the mathematical apparatus of vector algebra and analytic geometry in real-time. Desmos provides educators with feedback and information to manage learning and support students, including those with additional learning needs. The use of Desmos contributes to the development of critical thinking of students and the growth of their achievements. The conducted research gives the right to recommend the introduction of Desmos in the educational process to increase its effectiveness.

PATIL, Anita

<https://orcid.org/0009-0009-4159-6289>

Shri Jagdishprasad Jhabarmal Tibrewala University, Rajasthan, India

FUZZY MATHEMATICAL MODELLING OF RESOURCE ALLOCATION IN CLOUD COMPUTING

The layer of virtualized, hypervisor-based infrastructure service providers is not yet modelled clearly by mathematicians. The partial allocation, full allocation of resources, changing scenarios in the virtualized environment due to consumers should be shown mathematically so that the definiteness can be introduced. The “uncertainly” in the consumer’s requirement need to be modelled, because it affects the allocation of resources.

The modelling of the deployment methodology on virtualized infrastructure and same scenario happened in the different Flavors of hypervisors, and integration with sophisticated environment. For certain parallel applications i.e., long running task, the set of machines to be launched (in a cluster) are represented in the form of “leases”. These future requirements could be registered by the users (consumer) “in-advance”. However, in dynamic load conditions, it perhaps limits the decision power of the scheduler, in IaaS Cloud environment. Uncertainties due to consumer requirements create the complex situation in the lease processing, and it does not fit into the precise categories of the conventional set theory.

The terms like “almost”, “Partially” are modelled using the fuzzy design system with our conventional development. It is difficult to decide in case of complex situations like if the resources are available, but the owner has not permitted to use the resource.

In addition, if the application execution by the consumer is seems to be very urgent, then scheduler need to balance “Satisfaction” level of both sides. Hence here fuzzy logic helps here to decide launching possibility. From the matrix of values, the rule-based knowledge base is produced. The values are generated using the triangular, trapezoidal functions available with fuzzy logic supporting tools. The concept of modelling Cloud Resource Scheduling as mathematical modeling can involve fuzzy logic, game theory, and intelligent techniques such a neural network. The requirements from the customers can be taken in terms of certainty. Such a how many virtual machines are required in the current situation of the business? How many CPU cores are required for the high-performance computing infrastructure? How many software users will personally use the offered SaaS Services? Resolving the specific, certain requirement needs of the customer in the cloud is easy for the Cloud vendor.

However, the dynamics of future needs can vary depending on the potential growth of the customers’ growth. The certainty answers provided by the customers for the future scenario can collapse, due to the unexpected growth in the needs. Such as the remote login software requirement, remote meeting tools requirements were suddenly risen in the Pandemic recently observed. The uncertainty, vagueness, imprecise, ambiguity, lack of details leads to the challenges in the scheduling of the resources. To provision the cloud infrastructure, it is highly required to model it mathematically using the fuzzy definition.

PAVLENKO, Kyrylo<https://orcid.org/0000-0002-9525-6409>*Kharkiv National University of Radio Electronics, Ukraine,***APPLICATION OF MACHINE LEARNING TO ESTIMATE THE HURST EXPONENT**

The **aim** is to implement the wavelet-based estimation of the Hurst exponent by self-similar realizations using the neural network and compare results with the statistical estimation. The construction of the regression model is based on the estimation of the Hurst exponent using a discrete wavelet transform. The input data are values of the wavelet energies obtained from the fractional Brownian motion realizations.

Results. Wavelet-based estimation is one of the widely used methods for estimating the Hurst exponent by time realizations. This approach has proven itself well to the non-stationary processes' fractal analysis. The fractional Brownian motion Hurst exponent was calculated by the statistical wavelet-based estimation for the different lengths' realizations. The Hurst exponent estimates, in addition to a sufficiently large standard deviation, have a significant bias, that decreases with increasing realization length as a standard deviation too.

Consider the Hurst exponent estimation as a regression task, so, it is necessary to predict the Hurst exponent value based on the wavelet energy spectra values obtained from the realizations. To obtain the regression neural network optimal configuration, some experiments number were carried out with different values of its parameters and sizes of the training set. The optimization criterion was the MSE value for the validation set. It should be emphasized that the obtained by the neural network estimates do not have a bias and have a standard deviation that is a magnitude order smaller than the estimates obtained statistically. The comparison of standard deviation of the Hurst parameter estimates for the values of Hurst exponent equal to 0.3 and 0.7 is presented at the table 1.

Table 1*Standard deviations of statistical and by neural network estimates*

	Realization Length	
	200	2000
Standard deviation at $H=0.3$		
<i>Statistical calculation</i>	0.13	0.045
<i>Neural network</i>	0.01	0.002
Standard deviation at $H=0.7$		
<i>Statistical calculation</i>	0.13	0.05
<i>Neural network</i>	0.01	0.002

Conclusion. This study presents a method of estimating the Hurst exponent over time realizations using the regression neural network. The estimation of the Hurst exponent accuracy, have performed by the neural network, is an order of the magnitude higher than the statistical estimates accuracy.

SAMODAI, Valentina

<http://orcid.org/0000-0002-4043-5426>

PAVLENKO, Kateryna

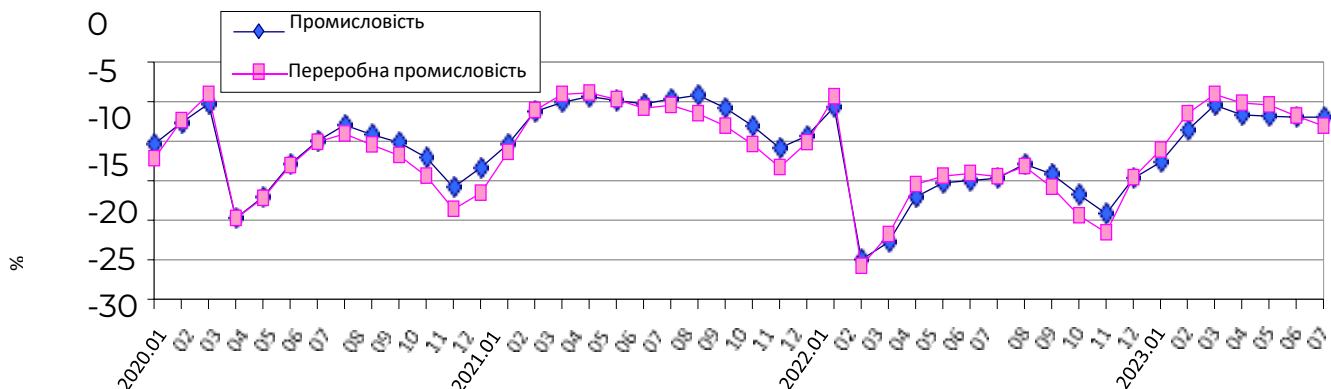
A.S. Makarenko Sumy State Pedagogical University, Ukraine

STATISTICS OF INDUSTRIAL ENTERPRISES, CONCERNING THE PROSPECTS FOR THE DEVELOPMENT OF THEIR BUSINESS ACTIVITY

Industry in Ukraine is one of the leading branches of the national economy, which forms the foundation of socio-economic development. The added value created in the industry amounted to UAH 647 billion. in 2017, and its share in GDP is 21.7%. The key branch of industry is processing, where UAH 369 billion of added value was produced, or 12.4% of GDP. Export of industrial products reached 32 billion dollars. USA, which accounted for 73% of the country's total commodity exports. Business confidence is an important industry for the defense strength of Ukraine. Today, the topic of industrial development is relevant, in connection with the full-scale invasion of Russia on the territory of Ukraine. This area covers all areas of economic activity: extractive industry, processing industry, construction, electricity production, gas, water supply and sanitation, transport, warehouses and communication services. These sectors will always remain relevant and used for consumers. A significant trend (see Fig. 1) indicates that in 2020, there was a substantial surge in the indicators.

Figure 1

Indicator business confidence in industry



Subsequently, from 2021 to 2022, we can observe stability with a slight drop-in industrial activity. Then the trend of a sharp drop in March 2022 due to the full-scale invasion and occupation of the eastern territories of Ukraine. Then, when the occupation began, from May the level of industrial activity indicators began to grow and reach positive positions. Also, if you pay attention to the months of December and January 2023, you can observe a low level of industry indicators, due to the fact that the enemy hit energy supply, water supply, communication and gas supply structures with missiles. But then, starting in May, the industry began to gain momentum and level out its indicators. In August 2023 indicator business confidence in industry not has changed compared to July 2023 and was minus 7%, in the processing industry this indicator decreased comparatively with the previous month and was a minus 8.1%. The data are given without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, the city of Sevastopol and parts temporarily occupied territory in Donetsk and Luhansk areas, from March 2022 year – without consideration temporarily occupied Russia territory and parts territory, on whose are conducted (were) fighting actions.

POLIATYKIN, Andrii

HUSAROVA, Iryna

<https://orcid.org/0000-0002-1421-0864>

Kharkiv National University of Radio Electronics, Ukraine

MODELLING OF NON-STATIONARY REGIMES ALONG MULTI-LINE LINEAR SECTIONS OF THE PIPELINE

The **aim** is to model the gas transportation regimes on a multiline linear section of a gas pipeline. This issue should be considered from the perspective of gas transportation in non-stationary modes under conditions of rapid changes in gas flow parameters. This is the task of high priority in the gas industry and energy sector because we can solve such problems as ensuring the safety and reliability of gas pipeline operation modes, operating efficiency, reducing gas losses, planning maintenance and repairs.

These issues become especially critical, when the gas flow parameters at the inlet or outlet of a multiline linear section of a gas pipeline change rapidly, that is, in emergency or abnormal situations.

Results. The paper considers a mathematical model of non-stationary gas flow regimes on a multiline linear section of a gas pipeline. It consists of several parallel pipes of a given diameter with a common input and output.

The structure of multiline linear section of gas pipeline we will model using a directed graph that has two vertices, which we denote as 1 and 2, where 1 and 2 are the input and output of the pipeline section, respectively, and specified number of arcs corresponding to their sections of the pipeline with certain lengths and diameters, going from node 1 to node 2.

Mathematical model of a non-stationary non-isothermal regime of gas flow along multiline linear section of given structure will look like as interconnected system of quasi-linear partial differential equations of the first order, corresponding to the graph arcs.

The matching conditions at graph vertices 1, 2 are given by linear algebraic equations. Mass flow rate, pressure and temperature in corresponding pipeline section are significant parameters. The boundary conditions and initial distribution are assumed to be given.

Pressure and temperature are specified as functions that depend on time in node 1, mass flow is set as a function of time in node 2. The stationary gas flow regime is taken as the initial distribution.

As a numerical method for solving the system of equations of the mathematical model, at the initial stage it is proposed to choose the finite difference method using an implicit finite difference grid.

Conclusions. The proposed mathematical model can be used for modelling and analysis of non-stationary non-isothermal gas flow regimes on multiline linear sections of a gas pipeline in emergency or abnormal situations and making appropriate decisions to prevent unforeseen consequences of such situations.

SAVCHENKO, Anton
SIDOROV, Maxim

Kharkiv National University of Radio Electronics, Ukraine

THE APPLICATION OF THE METHOD OF TWO-SIDED APPROXIMATION TO SOLVING THE DIRICHLET PROBLEM FOR A NONLINEAR EQUATION WITH A BIHARMONIC OPERATOR

The **aim** is to apply the two-sided approximation method to solve the Dirichlet problem for a nonlinear equation with a biharmonic operator. The considered mathematical model appears during the process studying of deflection of a plate fixed at the boundary. In particular, this problem has found a wide applications in microelectromechanical systems. Thus, the current task is to develop numerical methods to solve it. In this study, we suggest to apply the two-sided approximation method based on the Green’s function using.

Results. Let’s consider a boundary value problem (Dirichlet problem) modeling the deflection process of a circular plate fixed at the boundary

$$\Delta^2 u = f(x, u), \quad x \in \Omega, \quad (1)$$

$$u|_{\partial\Omega} = \frac{\partial u}{\partial n}|_{\partial\Omega} = 0, \quad (2)$$

where $\Delta^2 u = \frac{\partial^4 u}{\partial x^4} + 2 \frac{\partial^4 u}{\partial x^2 \partial y^2} + \frac{\partial^4 u}{\partial y^4}$ – a biharmonic operator, $x = (x_1, x_2)$, Ω – an unit circle, $f(x, u)$ – a nonlinear, positive, and continuous function with respect to $x \in \bar{\Omega} = \Omega \cup \partial\Omega$, n – an exterior normal to the boundary $\partial\Omega$.

For example, during the microelectromechanical systems studying, the function on the right-hand side may take the form of: $f(x, u) = \frac{\lambda}{(1-u)^2} + \mu$, where λ – an electrostatic coefficient, μ – a quantity that characterizes hydrostatic pressure.

We reduce the boundary problem (1), (2) to an equivalent integral equation of the Hammerstein type. We investigate the obtained integral equation by methods of the nonlinear operators theory in partially ordered Banach spaces, and apply the two-sided approximations method to it. This method implementation consists of constructing two iterative sequences that approximate the desired solution from above and below.

The two-sided approximations method allows us not only to study the existence and uniqueness of solutions to the operator equation but also find them actually. It’s worth noting that this method provides a convenient a posteriori estimation of the approximate solution.

Conclusions. The results of the method of two-sided approximations applying based on the use of the Green’s function to solve the Dirichlet problem for a nonlinear equation with a biharmonic operator can be utilized in the microelectromechanical systems research. Specifically, it can be applied in the construction and modeling of ultrasonic transducers, pressure sensors, miniature pumps, and gas detectors.

SELIUKOVA, Nataliia

<https://orcid.org/0000-0001-9657-6888>

National University of Pharmacy, Ukraine

MISIURA, Katerina

<https://orcid.org/0000-0002-0258-9109>

SI "V. Danilevsky Institute for Endocrine Pathology Problems of the NAMS of Ukraine", Ukraine

CONSEQUENCES OF POST-TRAUMATIC STRESS DISORDER IN MEN OF UKRAINE CAUSED BY COMBAT ACTIONS

Post-traumatic stress disorder (PTSD) is a mental health disorder that develops after experiencing or witnessing a traumatic event. Such an event can be a battle, witnessing the death of a person, rocket fire, sexual violence, etc.

The aim of the study was to analyze the available literature and find out what exactly is the trigger in the development of post-traumatic stress disorder and its consequences.

Materials and methods. For our brief literature review, we queried two databases: PubMed, Scopus. Our search focused on articles published between the years 2010 and 2023. We included quantitative articles published in English that measured PTSD as a primary or secondary study outcome.

The results. Stress is a normal reaction of the body to an external perceived threat. Among the psychological consequences of the ongoing Russian invasion of Ukraine is an increased level of stress. The stress response to traumatic events can be acute or chronic. Prolonged exposure to stressful events leads to severe mental disorders such as PTSD; the stress of violence and the loss of close relatives and friends have a negative psychological impact on war victims and civilians.

The mechanisms leading to PTSD are still not fully understood. Scientific literature indicates that the neuroendocrine and immune systems are involved in the formation and development of PTSD. After traumatic effects, the stress response pathways of the hypothalamic-pituitary-adrenal glands and the sympathetic nervous system are activated and lead to an abnormal release of glucocorticoids and catecholamines. Glucocorticoids exert immunosuppression, metabolic enhancement, and negative feedback inhibition of the hypothalamic-pituitary-adrenal axis by binding to the glucocorticoid receptor, thus linking neuroendocrine modulation to immune disturbances and the inflammatory response.

A recent meta-analysis of 20 studies found elevated plasma levels of the proinflammatory cytokines tumor necrosis factor-alpha, interleukin-1beta, and interleukin-6 in individuals with PTSD compared with controls. In addition, some other studies suggest that there is a prospective association of C-reactive protein and mitogen with the development of PTSD.

These results suggest that neuroendocrine and inflammatory changes, rather than a consequence of PTSD, may actually act as a biological basis and preexisting vulnerability for the development of PTSD after trauma. In addition, it has been reported that increased levels of terminally differentiated T cells and altered balance of T helper cells (Th1/Th2) may also predispose a person to PTSD.

SHKURKO, Viacheslav

<https://orcid.org/0009-0003-3274-3941>

POLIAKOV, Andrii

<https://orcid.org/0000-0003-1805-9011>

Kharkiv National University of Radio Electronics, Ukraine

POTENTIAL OPPORTUNITIES FOR IMPROVING THE TESTING PROCESS THROUGH ARTIFICIAL INTELLIGENCE

Purpose. Researching the available capabilities of artificial intelligence and determining the possibility of their use in the testing process, which can later be used to accelerate and optimize the entire software development process.

Results. During the research, various possible tools and their possibility of use at the testing stage were considered. One of these tools is the use of artificial intelligence (AI). Currently, AI can be used to analyze test system data, create and manage test data, identify product problem areas, classify results, and reduce the amount of dirty work involved in implementing, executing, and analyzing test results.

Considering the implementation of AI in the testing process can be considered from the point of view of the use of methods: artificial intelligence methods will evaluate systems for automatic generation of previously resource-intensive scenarios, methods of analyzing results to predict errors and adjust scenarios to improve test coverage.

AI algorithms will look for defects in applications based on user paths that are automatically generated based on this bug hunting model. Test coverage analysis methods will select the user path that is the furthest from others that have already been completed.

Non-instance-based learning methods also reduce the amount of training required, providing fast results that are important in agile and DevOps environments.

Machine learning (ML) can also be singled out as one of the tools for improving testing. First of all, ML is promising for the optimization of automated testing. With its tools, it is possible to carry out image-based testing using automated visual inspection tools (visual testing), simplify the process of automating API testing, and use ML to analyze test coverage and verify software code changes.

Conclusion. Based on the research data, it is possible to note potential areas in which artificial intelligence can be applied. Artificial intelligence can significantly simplify and speed up the testing process for analyzing and tracking results, working with defects and documentation.

A deeper implementation of AI for various types of testing is potentially possible, but it should be noted that this direction is still relatively new and experimental, so further research is needed.

STETSUN, Kateryna*Kharkiv National University of Radio Electronics, Ukraine***TOPIC DETECTION AND ANALYSIS IN SCIENTIFIC TEXTS AS A PROBLEM OF SEPARATING PROBABILITY DISTRIBUTION MIXTURES**

Currently, there is a growing volume of news articles being published in journals, as well as in personal blogs and social media. Not all this information is necessarily truthful or up-to-date, and there is currently a lack of tools for their analysis, aside from using personal critical thinking. Additionally, there is a shortage of tools for categorizing these texts into relevant groups based on keywords.

The **aim** of this study is to address the task of topic modeling of texts and explore further ideas for their application in the analysis of texts on specific themes.

The result of the modeling was a set of documents, each of which was labeled with several topics from a common list. Each designated topic corresponded to a set of keywords, i.e., words that were most characteristic of that particular topic.

The probabilistic topic model used in this task involved representing each document in the collection as a *Bag of Words* model in the form of a vector. This vector had a polynomial distribution of probabilities with parameters that determined the number of words in the document and the probability of each word from the vocabulary occurring in the document.

We considered that the overall distribution of documents in the collection was a mixture of polynomial distributions, and each of these distributions corresponded to a separate topic from which the documents in the collection were generated. Under these conditions, the problem of determining topics boiled down to finding the parameters of the specified mixture of distributions. Solving this problem involved maximizing the logarithmic likelihood function, for which the *EM algorithm* was proposed to be used.

The *Expectation-Maximization (EM) algorithm* is an efficient iterative procedure for maximizing likelihood in the presence of missing or hidden data. With this method, we estimated the parameters of the model for which the input data were most probable.

The algorithm for solving the problem of topic modeling as a problem of mixture distribution separation was divided into four main stages: 1) collection of scientific text data, 2) preprocessing of data, 3) data transformation into vector form, and 4) solving the problem of topic modeling as a problem of separating a mixture of probability distributions.

Conclusions. To address the stated problem, a software product was developed using the Python 3 programming language, which practically implemented the task of determining topics and their corresponding keywords for a given collection of documents.

The advantage of the developed algorithm was its ease of use, which created comfortable conditions for research. At that time, topic modeling for working with textual document collections had been considered.

However, in practice, topic modeling could find applications when dealing with photo and video materials, signals, graphs, and so on.

SYDORENKO, Bohdan

<https://orcid.org/0000-0002-5963-5911>

Kharkiv National University of Radioelectronics, Ukraine,

CNN-RNN USAGE FOR SHOPLIFTING DETECTION IN RETAIL STORE SURVEILLANCE VIDEO FOOTAGE

The **aim** of the study is to identify human actions, capable of a theft committing, based on the hybrid neural network. Understanding a dynamic human behavior, based on online video, has many applications in the security control, a crime surveillance, sports, and industrial IoT systems. This paper solves the problem of video data classifying, recorded on surveillance cameras to identify fragments with shoplifting instances. It was suggested to use a classifier as a symbiosis of two neural networks: convolutional and recurrent. The convolutional neural network was used to extract features from each frame, and the recurrent network was used to process the time sequence from the obtained frames and classify them further.

Results. The task of a theft recognition was solved as a classification problem. There are four main stages of the research algorithm:

- 1) First stage is the data collecting of shoplifting videos from surveillance cameras in stores. In our case, this is a set of videos based on UCF-Crime data. Since the dataset is unbalanced, the dominant class was reduced to the equal number of video clips in two classes.
- 2) Second stage is the data preprocessing: marking the video by the class (1 - theft, 0 - normal behavior), resizing the image to 224x224 pixels, dividing the video into frames: since each video segment is 3 seconds long at 10 frames/second, we get sequences of 30 frames.
- 3) In the third stage, features are extracted using a pre-trained convolutional neural network.
- 4) The fourth and final stage is the creation, training, and testing of the recurrent neural network with layers of gate recurrent nodes. That is, the features, extracted by the convolutional network from each image of the labeled video sequences, are trained in the recurrent gate network.

To achieve a sufficiently high accuracy of the classifier, many studies and experiments have been conducted in a practice, including the choice of a video classification method, a dataset searching, a choosing the optimal data processing, the neural networks, and their configuration with parameters.

Conclusions. The video data classification task from security cameras to identify fragments with cases of shoplifting was considered in this paper. It is proposed to use a classifier that combines convolutional and recurrent neural networks for identifying features and processing a time sequence of frames.

The classification results showed a high accuracy: 93%, that is a several percent higher than the accuracy of the models presented in the scientific research review. Also, the trained classifier has a high performance, that allows it to be used in real-time.

TIUTIUNNYK, Valeriia

H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine

THE USE OF INTERACTIVE TECHNOLOGIES IN *BIOLOGY* LESSONS IN THE CONTEXT OF DISTANCE LEARNING

The aim of this paper is to analyze the use of interactive technologies in *Biology* lessons in the context of distance learning.

Results. The current stage of development of the education system in Ukraine is characterized by educational innovations aimed at modernizing the education system in accordance with the requirements of the times. Today's conditions require the teacher to search for effective forms and methods of teaching biology in distance learning. Now, during the period of martial law, when the use of traditional methods is impossible, it is important to optimize the strength and knowledge of teachers in order to continue the learning process. Innovative methods should become the basis for the formation of a modern lesson. The relevance of the work lies in the possibility of ensuring a sufficient level of professional, communicative and socio-cultural competence of students, acquiring practical knowledge and skills through a combination of interactive learning technologies and educational platforms in distance learning. The purpose of this paper is to determine the benefits of using interactive teaching methods in biology lessons. Interactive learning technologies have become an integral part of the modern educational process. Interactive learning involves active interaction and involvement of all participants in the learning process. This includes interaction between the teacher and students, as well as active collaboration between students. Such interaction takes place both in face-to-face and distance learning. The organization of interactive learning involves modeling life situations, using games, and joint problem solving based on an analysis of the circumstances and the relevant situation. In their work, biology teachers can use a variety of interactive learning methods, such as "Work in pairs", "Brainstorming", "Microphone", "Aquarium", "Information search", "Circle of ideas", etc. Forms and methods of interactive learning can be effectively used not only in the classroom, but also in distance learning. Zoom and Google Meet are among the most adapted to learning and easy-to-use platforms.

Using the Zoom platform, the teacher has the opportunity to organize conference participants into groups – separate "breakout rooms". This feature makes it possible to hold discussions in pairs, groups, teams, etc. Grouping can be done both automatically and manually. You can also effectively use the Zoom Whiteboard. This feature allows conference participants to draw, write, and make notes on the screen together in real time. Using the Google Meet platform, you can simultaneously engage about 100 users in a session. In combination with Google Classroom, it can be used for both synchronous and asynchronous learning. The platform makes it possible to demonstrate materials on a PC desktop during classes and seminars: presentations, videos, text assignments, etc.

Conclusions. Thus, the system of distance learning using effective interactive methods can take its place in the education system, since if properly organized, it has the ability to provide quality education that meets the requirements of modern society today.

TOLOK, Diana

H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

DEVELOPMENT OF COGNITIVE ACTIVITY OF STUDENTS IN MATHEMATICS LESSONS

Aim. Since students can learn better when they are engaged in cognitive activities, the purpose of this study is to investigate and analyze how to make mathematics lessons more interesting and active for students. Teachers must create conditions to maintain students' interest in the subject and support their activity throughout the lesson in order to ensure an effective learning process and achieve good results.

The **results.** The main goal of the teacher is the development of students' creative abilities, which can be achieved through the activation of their cognitive activity. This is achieved through the use of methods and techniques that support the high activity of students during the educational process. As you know, human abilities develop in the process of activity, so teachers should encourage students to actively study and teach them effective methods of developing cognitive abilities. This will help to achieve high results and the development of the student's personality.

In the school educational process, the lesson is the main form of organization. Different types of lessons, such as lesson-research, lesson-travel, lesson-conference, lesson-discussion, lesson-adventure, lesson-game can stimulate students' cognitive interest and increase their activity. For example, the method of "brainstorming" can help students produce new ideas and their combinations, which contributes to long-term cognitive activity. Searching for "hidden" elements and their relationships can support active cognitive activity, and finding a "known element" in a complex mathematical structure and using it under new conditions can increase students' cognitive interest during the lesson.

A lesson can be successful in terms of stimulating students' cognitive activity if the teacher manages to provide a favorable atmosphere for interaction with students, which allows them to open up, express their own ideas and thoughts, and learn from each other. It is also important to use tasks and methods that promote the development of thinking at a high level, but take into account the individual characteristics of each student. The teacher should be constructive in relation to the results that the students get and keep them interested in the learning material.

The problem-based approach in teaching students is an important component of this topic. This method involves creating a problematic situation in the lesson when students do not have sufficient knowledge or methods of activity to explain facts and phenomena. Students put forward their hypotheses and options for solving a specific problem. This method contributes to the formation in students of the techniques of mental activity, analysis, synthesis, comparison, generalization, establishing cause-and-effect relationships and the development of logical thinking. However, it is important to consider the student's current level of cognitive ability and use tasks and methods that will be appropriate for each student's general mental development. Difficult tasks can undermine self-confidence and not have a positive effect on student learning.

Students can demonstrate their cognitive activity through questions, active thinking, independent study and creative use of knowledge. Important characteristics of an active personality include initiative, energy, interest and independence, as well as awareness of actions, will and creativity. The levels of students' cognitive activity can be reproductive-repetitive, search-executive and creative, and they are interconnected and appropriate for a specific age range of schoolchildren. Teachers should take these levels into account when planning their lessons and activities in order to foster active and independent learners.

Conclusions. The development of students' cognitive activity is very important for achieving success in learning, since the learning process itself has an activity nature and its result depends on the quality of the student's activity. Students' cognitive activity includes not only the perception of information, but also the formation of a positive attitude towards the cognitive activity itself. The mental qualities of a person depend on the activity of students. Teaching mathematics is also important for the development of students' cognitive abilities, so teachers should direct their actions to activate students' cognitive activities in order to provide them with quality education.

TYTECHKO, Pavlo

Kharkiv National University of Radio Electronics, Ukraine

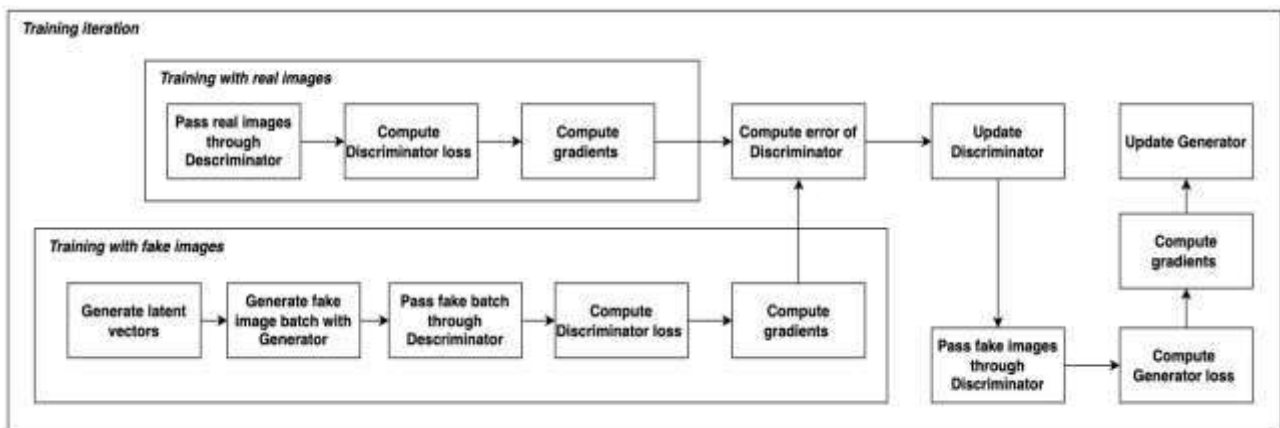
LEVERAGING GENERATIVE AI FOR CREATIVE DESIGN IN THE FASHION DOMAIN

The **aim** is to generate creative fashion samples that can be used in a variety of applications, such as designing new fabric patterns or materials. Starting with existing fabric patterns, we need to learn to generate patterns that look like those in the original (training) data set, however, these have some variations that make these new patterns unique. Besides the uniqueness we are looking for possibility to generate the creative content, which is aesthetically appealing and narrow down infinite possibilities in the creative space.

Results. The GAN networks using was considered as a tool for generating creative fashion patterns, which can be used in developing new graphic templates. The task is to train the model on the certain examples set, and also give it some freedom to generate new results. This freedom is viewed more from the point of view of creativity perspective rather than the training dataset imitation. By training a GAN on the existing patterns/designs dataset, the generator can learn to generate images that resemble those in the training dataset, but with some variations that make these new patterns unique. The proposed approach is based on our experiments with the loss function and noise vector generation.

Figure 1

Training Iteration



For a stable training process, the input data was normalized to ensure that each dataset had a zero average value and a standard deviation was a one. Additionally, the input images were enhanced by the unnecessary graphical data removing. Fashion experts have evaluated the sets of generated images/patterns and assessed their aesthetic validity in the given context.

Conclusion. This study has illuminated the potential of GAN networks as a valuable tool for generating creative fashion samples with a wide area of applications, including the design of innovative fabric patterns and materials. Moreover, by the GAN training on a dataset of pre-existing fabric patterns, we have demonstrated the ability to produce patterns that closely resemble those in the training dataset, but they are saturated with unique variations that enrich the creative possibilities.

VORONENKO, Mykyta

Kharkiv National University of Radio Electronics, Ukraine

A DECISION SUPPORT SYSTEM FOR AUTOMATED DECISIONING IN CONSUMER LENDING: BUSINESS ANALYSIS

The **aim** of this research is to conduct business analysis for the development of a decision support system (DSS) aimed at automating decision-making processes in consumer lending.

Consumer credit is the provision of monetary funds by a creditor to an individual for their personal needs detached from commercial activities.

Any credit is associated with a certain credit risk, denoting the potential inability of the debtor to fulfill the prescribed obligations with the financial institution.

The creditor's goal is to maximize profit and, consequently, lower credit risk. To accomplish this task, the creditor collects all available information about the potential borrower, analyzes received data, and decides whether to approve the credit application. In the modern world, this task is inconceivable without the automation of management through decision support information systems.

Defined set of such decision support information system's needs for a creditor:

- Solution needs to be scalable to increase throughput, reduce required human effort to operate and error possibility – solution need to be automatable.
- Market and risks constantly evolve and lender has to be adaptable – solution need to be configurable and have flexibility for possible changes.
- To lower update cost configuration changes need to be fast and easy to make.
- Amount of available data about potential borrower is very dynamic – solution need be able to work with different amount of input data of different type.

Results. These needs have been transformed into following high-lever requirements:

- Select business rules as decision making approach.
- List of business rules have to be dynamic and configurable per credit product.
- Business rules decisioning settings have to be configurable per credit product.
- List of input data points has to be dynamic.
- To be able to process diverse data, all inputs has to either be continuous numeric variables or categorical variables with known set of possible values.
- Business rules has to be able to work with numeric or categorical inputs.
- To make automatable solution, its output has to be in binary “yes/no” form.
- To be able to aggregate dynamic list of business rules, each rule's output has to be in binary “yes/no” form.

Solution inputs:

- Numeric or categorical data points from loan application.
- Numeric or categorical data received from 3rd party systems (Credit Bureau, KYC system)
- Credit product related loan settings and decisioning settings
- Solution output:
 - “Yes/No” result of each business rule.
 - “Yes/No” final suggested loan decision that could also be used as auto-decision.

Conclusion. After elicitation of high-level requirements, we were able to use it to design a process flow and data structure for the decisioning information system.

YANDUKOV, Dmytro

Kharkiv National University of Radio Electronics, Ukraine

COMPARISON OF TREND DETECTION METHODS ON SHORT TIME SERIES

Aim. This work is devoted to the assessment of the criteria for determining the presence of a trend in short time series, developed on the basis of the k -means method and the method of determining the trend component using the discrete wavelet transformation, and comparing the performance of these methods. A software product was developed to test the hypothesis of no trend and compile static data on the performance of both methods. An analysis was performed to compare the performance of both methods to identify key differences between the methods.

Results. One of the most important tasks in the research and analysis of short time series is the identification and statistical evaluation of the main development trend of the researched process. The main task of the conducted research is to detect a trend based on the smallest number of time series values and, based on this, to carry out clustering of time series using machine learning methods.

Let's write down the set of time series that need to be clustered according to the presence of a trend component, in the for

$$S = \{(S_1^0, \dots, S_{N^0}^0), (S_1^1, \dots, S_{N^1}^1), \dots, (S_1^i, \dots, S_{N^i}^i), \dots, (S_1^n, \dots, S_{N^n}^n)\},$$

where $(S_1^i, \dots, S_{N^i}^i)$ – time series of small length, $i = \overline{1, n}$; n - the number of objects contained in the time series file; N^i - the length of the time series.

Each time series consists of two components, namely, trend and noise:

$$S^i = T(\tau) + \xi/SNR,$$

where $\xi(t) \sim N(0, \sigma)$ - white noise; $T(\tau)$ - a trend whose model is selected from some set $\tau = \{ \text{linear, polynomial, exponential, hyperbolic, logarithmic} \}$; SNR (signal-to-noise ratio) – it is a dimensionless quantity that is equal to the signal-to-noise ratio $SNR = \sigma_{T(\tau)}/\sigma_\xi$.

The k -means method is one of the widely used clustering methods. First, we set the number of clusters and the corresponding centroids (cluster centers) for each of them. Next, we distribute all objects by clusters according to their proximity to the centers and find new centroids. We continue the process until the coordinates of the centroids stop changing.

Discrete wavelet transform is an implementation of a wavelet transform using a discrete set of scales and wavelet transfers that obey certain rules. A set of wavelets forms an orthogonal basis, which we use to decompose the time series into components.

Conclusions. With the help of the software, an analysis was carried out to compare clustering according to different approaches, different trends and relation. It was found that if there is no need to separate atypical time series, the k -means method shows quite good results; however, the wavelet decomposition method is more flexible and shows good results when working in different conditions.

YUVCHENKO, Kateryna

<https://orcid.org/0000-0002-5921-3049>

Kharkiv National University of Radioelectronics, Ukraine

NEURAL NETWORKS USAGE FOR EMOTION RECOGNITION

Technologies that recognize people's emotions are becoming indispensable for companies to improve the customer service quality, enhance the process of the candidates selecting for interviews, and increase the emotional impact of their advertising.

The **aim** of this study is to find and optimize a human emotion classification algorithm that could work as accurately as possible based on the face image analysis. Additionally, this algorithm can be used to develop new products and services that provide a more personalized user experience.

Results. This program is designed to classify images of people's faces based on seven emotional states: happiness, neutrality, sadness, anger, surprise, disgust, and fear. The classifier that can determine the emotion of a person in a photo with a certain probability is created and trained.

To train the classifier, we used the FER2013 dataset. We loaded it into the runtime environment, performed the image preprocessing, and created training and test sets. We set the optimal parameters, such as the number of training epochs (30), the number of fine-tuning epochs (20), the standard image size (48x48 pixels), and the batch size (64 objects in one iteration).

Based on the pre-trained DenseNet169 neural network, we obtained a model for the feature extraction. We created a classifier with tightly connected layers. To improve the accuracy of the model and reduce the likelihood of overtraining, we used the fine-tuning method. After training the model, we evaluated the quality of classification on the test set.

The deep learning model was created to classify emotions based on input data and the results comparing. The model was built on the basis of the densely connected convolutional neural network (DCCN), that was applied to human faces in images.

The quality of the classifier was evaluated by the following metrics: accuracy, error matrix, precision, recall, f1-score, ROC curve, and AUC. The accuracy value is quite high, it is 63%, provided that if the data is not balanced by classes. The AUC value is also quite high, it is 89%.

Conclusions. The emotion classification methods were studied in details, the best method was selected and implemented successfully by the neural network on the FER2013 dataset. The classifier quality was tested by the metrics number. The results correspond to the current level of scientific knowledge in the topic.

The obtained results can be used to improve the work of robots and bots, collect user feedback and analyze the emotions, that a consumer have by the product or service, and that allows us to predict more accurately the products and services sales and its popularity in future.

ZOSHCHUK, Mykola

Kharkiv National University of Radio Electronics, Ukraine

MATHEMATICAL MODELS AND METHODS OF USING INFRARED IMAGES FOR OBJECT RECOGNITION

The **aim** of infrared radiation is quite complex. This is electromagnetic radiation covering the spectral region between the red limit of visible light with a wavelength of $\lambda = 700$ nm (frequency of about 430 THz) and microwave radiation with a wavelength of $\lambda \sim 1$ mm (frequency of about 300 GHz). Infrared radiation is sometimes also called infrared light.

The human eye does not see infrared radiation; the sensory organs of some other animals, such as snakes and bats, perceive infrared radiation, which helps them to navigate well in the dark.

Results. Infrared radiation is also called "thermal radiation" because of the dependence of its spectrum and intensity on temperature, as well as its perception by human skin as a feeling of warmth. Thus, as the temperature increases, the maximum radiation intensity shifts towards shorter wavelengths, i.e., towards the visible range.

One of the applications of infrared radiation is night vision devices that detect the thermal radiation of objects in the environment and convert it into a visible image. In military equipment, infrared rays are also used to guide missiles to the thermal radiation of airplanes and helicopters. There are three types of radiation:

- 1.** Data transmission
- 2.** Drying and sterilization
- 3.** heating

Conclusion. The human eye perceives a certain spectrum of light radiation – from violet to red. The human eye cannot see anything to the left of violet and to the right of red without special devices.

To the left of the violet visible part of the spectrum is ultraviolet, X-ray and radiation, and to the right of the red visible part is infrared light, microwave radiation and radio waves.

So, infrared lights (IR infra-red) are now the most popular elements for providing illumination for recording, they are more comfortable for the eyes of the observer, they do not emit bright light.

ART SECTION

JAMOUCHI, Samira

<https://orcid.org/0000-0002-4135-0563>

Østfold University College, Norway

CRAFT, ART. EDUCATION. ON TOUCHING AND BEING TOUCHED IN OUR ENOUNTER WITH WOOL FELTING

This project is on-going research related to the author practices as visual artist, educator and researcher. The investigation is conducted in several contexts, such as art institutions, as well as educational and research institutions. The theoretical and philosophical framework that structures this research is inspired by post-structuralism and new materialism.

An approach that includes the collaborative work of Gilles Deleuze and Félix Guattari (1980), as well as the theory of agential realism proposed by Karen Barad (2007). By using such framework, the structure of this inquiry includes rhizomatic connections (Deleuze and Guattari, 1980), and intra-action (Barad, 2007) in the researcher's encounters with persons and materials in several artistic, educational and scholarly contexts.

The aims of these investigations in different contexts are wide reaching. But for this paper, attention is given to the idea of touch and being touched when working collectively with the ancestral technic of wool felting. Collectively here is thought as, and inspired by, contemporary artistic forms of expression that we find in performance art.

This kind of performance art within visual arts is different from performing art, that can be closer to theatre. Thus, my purpose is to explore a performative approach to art in teacher education and give attention to the act(ion) of touch.

The result of this investigation reveals that students participating to a performative approach to wool felting experience a deeper involvement with materials, space, time and other participants (Jamouchi, 2023). As well as it suggests that the students gain self-awareness in such pedagogical practice.

A plausible conclusion is that the term 'visual arts' become too narrow to express what a performative approach to art and art education can include. This shortcoming has great impact in how we can teach what we have earlier called visual arts in teacher education.

This in turn reveals a need to revisit how we assess students and what we value as knowledge in teacher education.

VITCHYNKINA, Kateryna

<https://orcid.org/0000-0003-2955-8158>

College of International Education Wuhan University of Technology, PRC

KEY ASPECTS OF CREATIVENESS ACTIVITY DEVELOPMENT OF FUTURE GRAPHIC DESIGN PROFESSIONALS

In the world of design, encouraging creativity is vital for aspiring graphic designers. This active cultivation plays a foundational role, enhances students' innovative abilities, enabling them to tackle complex visual challenges and contribute significantly to the field of graphic design.

Development of creativeness activity of future graphic design professionals has its own peculiarities.

The aim of the abstract is to observe some key aspects of this process. During the research we would like to focus on such aspects as:

- 1.** Stimulating Learning: It is essential to create a stimulating learning environment that fosters creativity. This can be achieved through practical tasks, projects, and exercises that encourage students to think unconventionally and generate original ideas.
- 2.** Development of the creative thinking: Future graphic design professionals should develop critical thinking, which enable them to analyze, evaluate, and reconsider their projects and ideas. This helps students to improve their skills, identify potential issues, and seek better solutions.
- 3.** Supporting experiments: Students should have the opportunity to experiment with various approaches and techniques in graphic design. This allows them to expand their boundaries, discover new ideas, and develop their own style.
- 4.** Teaching through research: Engaging in research-oriented learning equips future graphic design professionals with problem-solving skills, encouraging innovative thinking and develop their overall creativity.
- 5.** Encouraging independence: It is important to promote independence in learning and work. Students should have the opportunity to search for ideas, explore, and develop their own projects independently. This helps cultivate independence, initiative, time planning and confidence in their abilities.
- 6.** Practice-based learning: Practical application and usage of real projects can help future graphic designers improve their skills and higher up level of their creative activeness. Completing tasks within real constraints and deadlines encourage independence and problem-solving skills in creative challenges.
- 7.** Usage of new media and new technologies: Integrating advanced technologies, such as digital drawing apps, AI, into the educational process can foster the creativity of future graphic designers. Students can utilize AI tools for idea generation, design analysis, and optimization, promoting originality and innovation in the creative process.

These aspects collectively can contribute development of creative activeness of future graphic designers, encouraging them to broaden their horizons, explore new ideas, and develop the uniqueness of their creative approach.

POSTER SECTION

KUCHER, Yaroslav

Yaroslav Mudryi National Law University, Ukraine

UKRAINIAN PROSECUTOR'S OFFICE DURING THE WAR



Ukrainian Prosecutor's Office during the war:

Crimes committed during the full-scale invasion of Russia:

1) crimes of aggression and war crimes: **111038 crimes were registered**

- Violation of the laws and customs of war (Article 438 of the Criminal Code)
- Planning, preparation for, or initiation and conduct of an aggressive war (Article 437 of the Criminal Code)
- Propaganda of the war (Article 436 of the Criminal Code)
- Others

2) crimes against national security: **16288 crimes were registered**

- Encroachment on the territorial integrity and inviolability of Ukraine (Article 110 of the Criminal Code)
- High treason (Article 111 of the Criminal Code)
- Collaboration activities (Article 111-1 of the Criminal Code)
- Aiding the aggressor state (Article 111-2 of the Criminal Code)
- Sabotage (Article 113 of the Criminal Code)
- Others

International cooperation:

In times of war, the Prosecutor's Office of Ukraine actively cooperates with the Office of the Prosecutor of the International Criminal Court on the investigation of war crimes and the punishment of war criminals.

Prosecutor's office and army:

In order to ensure proper organisation of the work of specialised prosecutor's offices in the military and defence sphere in performing their functions, and to delimit their powers from independent structural subdivisions of the Prosecutor General's Office, regional and district prosecutor's offices, the Prosecutor General of Ukraine issued a Prosecutor's General of Ukraine's order "On peculiarities of organisation of specialised prosecutor's offices in the military and defence sphere".

Crimes against the environment:

"We are the first in the history of mankind to investigate crimes against the environment as war crimes. We cooperate with all our international partners in this area".

"Being the first, we do not have the right to make a mistake. Therefore, by joining efforts with partner countries that assist us, we can achieve our goals. The first goal is to ensure the inevitability of punishment for those who have committed and continue to commit war crimes against Ukraine and Ukrainians. The second goal is to establish appropriate standards for holding accountable those who may wish to commit similar crimes in other parts of the world. This should play a preventive role in making other aggressors understand that responsibility for crimes against the environment, like for war crimes, will be full," said the Prosecutor General of Ukraine Andriy Kostin.

Presented by: Yaroslav Kucher, PhD student,
Yaroslav Mudryi National Law University.

KULIKOVA, Iryna

Vasyl' Stus Donetsk National University, Ukraine

FUNCTIONAL-PRAGMATIC MANIFESTATIONS OF THE DISCOURSE OF ATTENTION IN THE BRITISH, AMERICAN AND UKRAINIAN LINGUOCULTURAL SETTING

FUNCTIONAL-PRAGMATIC MANIFESTATIONS OF THE DISCOURSE OF ATTENTION IN THE BRITISH, AMERICAN AND UKRAINIAN LINGUOCULTURAL SETTING

PURPOSE

This study explores the functional-pragmatic manifestations of the discourse of attention within the linguocultural environments of British, the USA, and Ukraine. The primary aim is to unravel the subtle nuances in how attention is conceptualized and linguistically expressed across these distinct cultural contexts. By examining linguistic patterns, cognitive frameworks, and sociocultural influences, the research seeks to provide a comprehensive understanding of the intricate interplay between language, culture, and cognitive processes in shaping the discourse of attention.

RESULT

The investigation reveals intriguing divergences and convergences in the discourse of attention across the British, the United States, and Ukrainian linguocultural environments. In the British context, attention is often linguistically manifested through nuanced politeness markers and indirect linguistic strategies. For instance, the use of mitigating expressions such as "if you don't mind" or "excuse me" reflects a cultural inclination toward politeness in seeking attention.

Contrastingly, the American discourse of attention is characterized by directness and efficiency. Americans tend to employ explicit linguistic cues, as seen in phrases like "hey" or "listen," reflecting a cultural preference for straightforward communication. This aligns with the broader cultural value placed on time efficiency and clarity in the American communication styles.

In the Ukrainian linguocultural environment, attention is frequently embedded in rich contextual cues and relational nuances. Politeness is often conveyed through contextual awareness and the use of familial or social references. For example, addressing someone with a familial term like "aunt" or "uncle" even in non-relational contexts signifies a cultural emphasis on interpersonal connections.

CONCLUSION

This study underscores the intricate interweaving of functional-pragmatic manifestations in the discourse of attention across diverse linguocultural environments. The variations observed reflect the profound influence of cultural values, social norms, and cognitive processes on linguistic expression. Understanding these distinctions is crucial for effective cross-cultural communication, as it enables individuals to navigate the subtle intricacies of attention-seeking in diverse linguistic contexts.

As globalization continues to foster increased interaction among cultures, this research highlights the necessity of cultivating cultural sensitivity in communication. Failure to recognize and adapt to these linguistic nuances may lead to misunderstandings and misinterpretations. By appreciating the cultural specificity of attention discourse, individuals can enhance their communicative competence and foster more meaningful cross-cultural interactions.

*Don't wrongly believe that
moment you decide
at your loss
to you'll become
learn. M*

**PRESENTED BY:
IRYNA KULIKOVA,
POST-GRADUATE STUDENT,
VASYL' STUS DONETSK NATIONAL
UNIVERSITY.**

KYRYLOVETS, Artur


Kherson State Maritime Academy, Ukraine



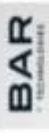



INDUSTRIALIZATION OF THE MARITIME INDUSTRY: VESSEL WITH GROUND-BREAKING WIND PROPULSION

Kyrylovets Artur
Kherson State Maritime Academy
Ukraine

INDUSTRIALIZATION OF THE MARITIME INDUSTRY: VESSEL WITH GROUND-BREAKING WIND PROPULSION

Cargo ship Pyxis Ocean



The purpose of this project is to share new technologies on ships in order to reduce harmful emissions into the atmosphere.

Prehistory

Cargo ship Pyxis Ocean, constructed with the ground-breaking first tech. Available technology by Yara Marine, Cargill and BAR technologies for air and sailing revolutionary wind propulsion technology.

At Cargill, Johnson, Mitsubishi Corporation Pyxis Ocean, chartered by Cargill, is the first vessel to be retrofitted with two WindWings, which are large wing sails measuring up to 125 meters in height that can be tilted to the deck of cargo ships to harness the power of wind.

Future built for BAR technologies

WindWings performance will be closely monitored over the coming months to facilitate improvements to the design, operation, and performance.

To attain the scale-up and adoption across Cargill's fleet and the industry.

To build hundreds of wings over the next four years with BAR Technologies continuously researching needs with improved hydrodynamic hull forms.

Innovation

Developed by an international team, this is a first-of-its-kind technology, according to the company. The wings are expected to generate savings in energy of up to 25% at risk fuel levels, which could be used to fund a transition with alternative fuels.

As a company, we're committed to reducing our carbon footprint and we're excited to partner with Cargill and BAR Technologies to help reduce emissions and improve the world's oceans.

Jan Dieleman, President of Cargill's Ocean transportation business

Progress

1. The exhibition demonstrates a progressively change in attitude towards technologies that can enable an energy conversion for sailing vessels.

2. The WindWings project can assist the industry in meeting targets by offering a retrofit solution that is capable of decarbonizing existing vessels.

3. This has significance due to the fact that 55% of the world's bulkier fleets are up to five years in age.

Conclusion:

This ship is a model for shipbuilders. Although these are expensive devices on the ship, they are worth it for the preservation of the Earth's ecology.

MOHYLOV, Danylo
BYLAIEVSKYI, Nikita
SHVETSOVA, Iryna

Kherson State Maritime Academy, Ukraine

GLOBAL ECONOMIC AND BUSINESS ENVIRONMENT FOR SHIPPING AND PORTS IN TIMES OF PEACE AND WAR

Global Economic and Business Environment for Shipping and Ports in Times of Peace and War



Introduction

Seaports are subject to a range of economic and technological changes. International trade affects the level of activity and operation of ports. World trade shapes the demand for port services.

The aim of our study is to analyse the current factors of economic and business development global economic and business environment for shipping and ports in peacetime and to reflect on the changes in time of war.

Result

- Road routes began to dominate over sea routes.
- In July 2022, Russia and Ukraine agreed a grain deal brokered by Turkey and the UN.
- Price increasing fuel, food and commodity prices leading to inflation, and increased interest rates.

Presented by: Mohylov Danylo and Bylaievskiy Nikita, second-year students of the Navigation Department of Kherson State Maritime Academy
Iryna Shvetsova, PhD in Pedagogy, Associate Professor of English Language Department for Deck Officers

Pre-war time

Ukraine exported more than 90 % of its agricultural products, around 6 million tons per month, via the Black Sea.

The War time

-The closure of Ukrainian ports has caused an international food crisis.

-Most large shipping companies, citing unpredictable operational impacts, have suspended shipments to and from Ukraine and Russia.

Conclusion

The case of Ukraine's Black Sea ports illustrates how conflicts can disrupt the global economic and business environment for shipping and ports. During peacetime, ports are vital for efficient trade and supply chain management. However, in times of war, their operations can be severely hampered, leading to a range of economic challenges.

ROZUMNYI, Bohdan

Yaroslav Mudryi National Law University, Ukraine

CRYPTOCURRENCY IN ARMED CONFLICT

Cryptocurrency in armed conflict

Presented by: Bohdan Rozumnyi, post-graduate student, Yaroslav Mudryi National Law University

Cryptocurrency in armed conflicts, also known as *crypto warfare* or the use of cryptocurrencies in conflict zones, is an emerging and complex issue that has garnered attention from both policymakers and researchers

Key aspects

Funding for Non-State Actors



Cryptocurrencies can be used by armed groups, terrorists, and other non-state actors to raise funds and finance their activities. They provide a means of acquiring resources without relying on traditional financial institutions, making it harder for authorities to track and block their financial flows.

Anonymity



Cryptocurrencies offer a degree of anonymity, making it difficult for law enforcement agencies to trace the source of funds or the identity of the individuals involved. This can be especially appealing for actors operating in conflict zones.

Sanctions Evasion



Some countries and individuals in conflict zones have turned to cryptocurrencies to evade economic sanctions imposed by the international community. By using cryptocurrencies, they can continue to engage in international trade and access global financial systems.

Propaganda and Fundraising



Cryptocurrencies have been used in online propaganda campaigns by extremist groups. They encourage sympathizers to donate using cryptocurrencies, which can be difficult to track.

Cross-Border Transactions



Cryptocurrencies are borderless and can facilitate cross-border transactions, making it easier for armed groups to access international sources of funding and evade financial sanctions.

Blockchain Technology for Accountability



On the flip side, the blockchain technology underlying cryptocurrencies can also be used to improve transparency and accountability in conflict zones. It can be used to track the flow of funds and ensure they are used for legitimate purposes.

SKORYK, Yuliia

Yaroslav Mudryi National Law University, Ukraine

PUBLIC GOVERNANCE UNDER MARTIAL LAW

Public governance under martial status

Constitutional
aspect



The formation of a new system of state administration in Ukraine, taking into account the current needs of martial law and the implementation of urgent legal and organisational management measures, is of great importance in the current circumstances



One of the main tasks of the authorities was to carry out mobilisation activities, but the distribution of managerial functions between state authorities, local governments and civil society institutions in the exercise of their powers in the field of public administration in our country has not been fully regulated, which to some extent hinders the fulfilment of the task in a timely manner and in full.



The imposition of martial law implies granting public administrations (state authorities, military command, military administrations and local self-government bodies) the powers necessary to avert threats, repel armed aggression and ensure national security, eliminate threats to Ukraine's state independence and territorial integrity.



The peculiarity of public administration under the administrative and legal regime of the military state is the restriction of the low constitutional rights and freedoms of man and citizen in the conditions of the military state, which is provided for by the Constitution of Ukraine.

Presented by Skoryk Yuliia,
post-graduate student,
Yaroslav Mudryi National Law University

YURKOV, Vladyslav
YURKOV, Rostyslav
SHVETSOVA, Iryna

Kherson State Maritime Academy, Ukraine

**MARITIME CYBERSECURITY CHALLENGES AND SOLUTIONS:
 WAR AND PEACE IN UKRAINE**



Maritime Cybersecurity Challenges and Solutions: War and Peace in Ukraine

Introduction

The maritime industry is undergoing a digital transformation, but this shift brings with it a new set of challenges: cyber threats that can jeopardize safety and operations. Multiple reports highlight the main security problems in this sector. For example: DNV's 2023 Marine Cyber Priority report. This poster explores these challenges and offers essential insights.

AIM

The purpose of the study is to examine the challenges and introduce the necessary actions to ensure security in the maritime domain in peacetime and wartime.

Results

- Cybersecurity Challenges in Maritime Sector
- Importance of Cybersecurity in Maritime
- Recommendations for Improving Cybersecurity
- Modernizing Defenses During Wartime
- Emphasizing Cybersecurity Awareness

Kherson State Maritime Academy

Authors

Presented by: Vladyslav Yurkov and Rostyslav Yurkov, second-year students of the Navigation Department; Iryna Shvetsova, PhD in Pedagogy, Associate Professor of English Language Department for Deck Officers



Key Challenges

- Insufficient funding
- Effectiveness of regulation
- Supply chain vulnerabilities
- Lack of information sharing
- Workforce vulnerabilities
- Ransomware attack
- Email attacks




Recommendations from industry experts

- Consider cyber security as an enabler.
- Treat cyber risks like safety risks.
- Champion insight-sharing across the industry.
- Reframe regulation as the baseline for improving cyber security.
- Rethink supply chain vulnerability management.
- Invest in more effective training.
- Maintain an 'analogue fallback option' amid the shift to connected systems.

Modernizing Cybersecurity Defenses During Wartime: Key Steps and Recommendations

Outside of basic cybersecurity recommendations, defences should be modernised during wartime to address the current and increased risk of cyberattacks by following these steps:

- Raise Awareness
- Update ISM Code SMS Manuals
- Documents which should be specifically referred to in those Procedures:
 - IMO Res MSC.428(98) and MSC-FAL.1/Circ.3
 - ICS Guidelines on Cyber Security on Board Ships, Version 4
 - Code of Practice: Cyber Security for Ships
- Update ISPS Code Security Plans
- Encourage Masters to discuss the dangers of cyber-attacks and the use of cyber-security industry best practices with officers and crew

Conclusions

The critical importance of cyber security in the maritime industry should be emphasised, as evidenced by numerical reports. With the evolution of cyber threats in peacetime and especially the growing threat in wartime, cybersecurity measures are adapting, evolving and requiring awareness among maritime industry professionals. Protecting critical infrastructure and maintaining operational resilience are paramount to improving the safety and efficiency of global shipping.



Scientific Publication

LEARNING & TEACHING: AFTER WAR AND DURING PEACE

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Contact Details of the Organizing Committee:

kaf-theory-practice-english-lang@hnpu.edu.ua
conferences.dtpel@gmail.com

H. S. Skovoroda Kharkiv National Pedagogical University
Alchevskyh Str., 29, Kharkiv, 61002, Ukraine

Харківський національний педагогічний
університет імені Г.С. Сковороди
Україна, 61002, м. Харків, вул. Алчевських, 29

