

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
H. S. Skovoroda Kharkiv National Pedagogical University  
SSI "Institute of Education Content Modernization"  
University of Lorraine and Catholic Institute of Paris (France)  
Mid-West State University – UNICENTRO (Brazil)  
University of Manchester (the United Kingdom)  
University of Vlore "Ismail Qemali" (Albania)  
Northeastern University of Boston (the USA)  
Østfold University College (Norway)  
Sinop University (Turkey)

# CONFERENCE PROCEEDINGS

III International Scientific and  
Practical Conference

## LEARNING & TEACHING: in the World after the War

Kharkiv,  
Ukraine  
November 8,  
2024



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*On the Occasion of the University's 220th Anniversary*

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## **HUMANITARIAN SECTION**

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### **PROFESSIONAL SUPPORT FOR EDUCATORS IN KHARKIV DURING WARTIME**

The martial law has significantly altered the work of educators in Kharkiv, impacting all aspects of their activities. Due to the military actions, the city's schools have shifted to a remote learning format. This transition forced educators to quickly adapt to new conditions, master online tools and technologies, prepare materials for distance learning, and revise educational programs to address the learning losses and find ways to mitigate them in these new circumstances.

The **aim** of this article is to research methods of professional support for teachers in the city of Kharkiv during wartime.

**Results.** Municipal institution Kharkiv center for professional development of teachers of Kharkiv city council (KHARKIV CPD) has created a system of professional and psychological support for educators (Municipal institution Kharkiv ... , n.d.).

Support for teachers is implemented through educational and methodological activities aimed at enhancing professional competencies, spreading information about innovative approaches, and engaging in research activities. The use of online technologies has become an essential part of this work, ensuring continuous professional growth for educators. The greatest challenges arise for elementary school teachers working with New Ukrainian School (NUS) students, as the remote format limits live communication. The Kharkiv CPD organizes workshops and practical sessions for primary education, where teachers share their experiences and receive practical advice on using online platforms and tools.

An innovative approach to continuous professional development is the establishment of Distance Learning Schools for teachers. Since 2022, training has been conducted for teachers of various subjects, and new disciplines were added in 2024 (Distance learning school ..., n.d.; and other documents). Educators can learn new tools for online teaching, exchange experiences, and apply new methods in virtual classes. Teacher communities in Telegram continue their interaction beyond the official events. European integration also remains important for educators, especially through training abroad and participation in international conferences and seminars. Despite the challenges, Kharkiv students continue to participate and excel in intellectual competitions, which requires support for teachers who prepare them for Olympiads and the Junior Academy of Sciences (JAS) contests.

Support also includes non-certified activities, such as webinars, master classes, and creative groups. Teachers demonstrate their skills in competitions for the best distance courses, held annually. During wartime, psychological support services become particularly important. The Kharkiv CPD conducts seminars,

training sessions, and consultations aimed at maintaining mental health (Psychological help during ..., n.d.).

**Conclusions.** Kharkiv's educators continue to develop, improving their qualifications through both formal and informal education, allowing them to move vertically – towards new educational levels, or horizontally—changing their educational profile. As Hryhorii Skovoroda noted, continuous education is a key component of pedagogical mastery. In conclusion, a support system has been established in Kharkiv, ensuring conditions for the professional development of educators even during martial law.

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**THE PROCESS OF SIMULARIZATION IN THE PLOT OF  
PETER ACKROYD’S NOVEL «THE FALL OF TROY»**

Peter Ackroyd is a contemporary British postmodernist writer. Researchers have found that in his historiographical novels, the principle of metanarrative is the leading one, and this makes it possible to rethink the historical past, sometimes in an ironic way. The picture of the world in postmodernism implies the simultaneous existence of two or more realities, of which hyperreality and virtual reality are the most important for understanding the plot. That is why postmodern culture is dominated by simularization, which, according to Jean Baudrillard’s theory, go through three stages: disguising and distorting reality; disguising the absence of reality; and disregard for reality.

The **aim** of this research is to analyse simularization as a way of reconstructing historical events in Peter Ackroyd’s novel *The Fall of Troy*. The study allows for a broader understanding of the interaction between the plot and historical fact in this novel.

**Results.** In «*The Fall of Troy*», the fictional archaeologist Heinrich Obermann – a character modeled after the real-life Heinrich Schliemann, who famously discovered Troy – creates his version of Troy, which he names “Obermannopolis”. Obermann bases his findings on Homer’s «*Iliad*», using it as the ultimate reference.

Artifacts that do not align with the Homeric description are either reinterpreted, ignored, or destroyed. This selective process results in a simularization of Troy, where Obermann crafts simularization of gods, to whom he speaks through mystical invocations, and of artifacts uncovered at the archaeological site near Troy. Through these actions, Obermann attempts to substantiate his theories about Troy’s age and significance.

Obermann’s desire to shape Troy according to the Homeric epic leads him to dismiss or alter findings that contradict his constructed vision. He even goes so far as to destroy items that hold historical value, including clay tablets with early writing samples, a child’s skeleton that suggests cannibalism, and pottery fragments from various historical periods. His manipulations extend to falsifying relics, such as carving patterns into clay, thus molding the historical narrative to suit his interpretation. This mirrors Baudrillard’s notion of simularization, as Obermann’s version of Troy becomes a hyperreal entity, a creation disconnected from the true past.

**Conclusions.** Ackroyd’s portrayal of Troy in «*The Fall of Troy*» ultimately emphasizes the myth over the historical truth. The simularization created by Obermann diverge increasingly from historical accuracy, forming a new reality that embodies the Homeric legend more than archaeological fact. This reflects Baudrillard’s concept of simularization, where representations eventually become detached from reality and acquire an independent existence. The novel’s myth of Troy becomes not only an important component of the narrative but a commentary on the nature of historical memory, wherein constructed truths can overshadow factual history.



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## **OVERCOMING STRESS AND ANXIETY IN PRIMARY SCHOOL STUDENTS AND TEACHERS DURING MARTIAL LAW IN THE COUNTRY**

Martial law is one of the most traumatic and stressful phenomena for any society. It affects not only the physical condition of people, but also their mental health, with children and teachers being a particularly vulnerable group. Younger schoolchildren, as the most sensitive category of children, are very sensitive to changes in their environment caused by the hostilities. At the same time, teachers who work with students are under considerable strain both because of the need to support children and because of their own experiences.

Younger students are particularly vulnerable to changes in their environment. Military conflicts violate their basic needs for security, stability and social support. Children's psychological reactions to stress can vary, but the most common are fear, anxiety, sadness, and aggression. They may feel confused, depressed, and withdrawn, and may refuse to learn. Stress and anxiety in children manifest not only on the emotional level but also in physiological and behavioral symptoms. These can include insomnia, poor appetite, headaches, decreased activity, and poor concentration, all of which affect academic performance. Martial law often leads to the severance of children's social ties, which is an important factor for their emotional balance. Loss of contact with peers, change of place of residence, transfer to another institution can become additional sources of anxiety. Students may feel isolated and unwanted, which increases their emotional stress.

Teachers also experience a significant level of professional stress during the war. The work is complicated not only by the need to continue the educational process in a crisis, but also by the need to provide emotional support to students who are under stress. Teachers' anxiety and stress reduce their effectiveness in performing their duties. This creates additional difficulties for students. Therefore, psychological support is critical for teachers in times of war.

Schools must ensure a quality educational process. This can be done through the use of online platforms that allow you to keep in touch with children in different settings. School psychologists can provide individual and group counseling to students, helping them to understand their emotions, cope with stress, and anxiety. Teachers also need support.

Discussing problems, sharing experiences, and creating a supportive atmosphere can significantly reduce anxiety. Regular rest, physical activity, and personal hobbies can help teachers regain emotional stability. Therefore, it is crucial to create a safe and supportive educational environment in schools, as well as provide psychological support for both students and teachers.

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## **UNIVERSITY EDUCATIONAL LOSSES: EDUCATION DURING AND AFTER THE WAR**

Military conflicts and wars have a tremendous impact on various spheres of society, including the education system. University education, as one of the key elements of social and economic development, suffers serious losses and changes during military actions. Destroyed universities, the displacement of students and faculty, psychological trauma, and instability directly affect the educational process, leading to educational losses.

The purpose of this work is to analyze the educational losses of universities during the war, as well as the prospects for the restoration of the education system in the post-conflict period.

In the conditions of war, many universities were forced to switch to distance learning. Although this allows the educational process to continue, it creates a number of challenges. In particular, access to the internet and technology is uneven among students and faculty, which deepens inequality in education. The war disrupts not only the educational process but also the scientific activities of universities. Research conducted in laboratories, scientific projects, and international collaborations were forced to pause for a certain period due to the lack of access to resources or the displacement of scientists. This has led to losses in the country's scientific potential and a decrease in the volume of scientific achievements, especially in the early days of the military actions.

After the war, universities must gradually return to in-person learning, providing students with the opportunity for direct interaction with faculty and access to laboratories and resources. Investments in the modernization of educational infrastructure are necessary to improve the quality of education and create conditions for the return of students and faculty to universities. However, the remote and hybrid learning formats introduced during the war can be retained as an alternative tool to ensure flexibility and accessibility in education. In addition to rebuilding infrastructure, psychological rehabilitation for students and faculty is a crucial aspect. Special attention should be given to those who have experienced losses. Support programs need to be developed to help participants in the educational process cope with stress and the consequences of the war. The restoration of university education should include adaptation and integration programs for these individuals, ensuring support for continuing their studies and teaching activities.

War causes significant educational losses for the university system, including the destruction of infrastructure, psychological stress, the loss of scientific potential, and more. After the end of military actions, it is necessary to develop a comprehensive strategy for the restoration of university education, which will include rebuilding infrastructure, providing psychological support, integrating displaced persons, and reviving scientific activities.

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### **WAYS TO DEVELOP CRITICAL THINKING IN JUNIOR SCHOOLCHILDREN DURING DISTANCE LEARNING**

In an era of rapidly developing information technology and increasing amounts of available information, it is important to teach students to think critically, analyze information, and draw reasonable conclusions. This is especially important for younger students who are still developing their cognitive and independent thinking skills.

In distance learning, the development of critical thinking becomes even more important, as students are exposed to information flows without the constant guidance of a teacher. Learning in an online format requires students to be able to process information independently, work with digital sources and analyze learning materials, which requires special attention to ways to develop critical thinking.

The main method of developing critical thinking in distance learning is the question-and-answer method. The strategy of asking open-ended questions encourages learners to think, analyze, and search for their own answers. For example, a teacher can use this method during online lessons where students can discuss their thoughts. So, instead of asking «What is this?», you can ask «Why did this happen?» or «How does this affect other things?», which encourages students to think critically. The «Discussion and Debate» method involves organizing an online discussion or debate in which students have to express their views on a particular topic, arguing them with facts and logic. The «Problem Analysis» method involves students solving a specific problem situation that requires analysis, evaluation of different options, and decision-making. The Brainstorming method encourages students to generate different ideas without criticism. The «Six Hats of Thinking» method, proposed by Edward de Bono, helps children look at a problem from different perspectives. Each «hat» has its own role (e.g., criticism, logic, emotions), and students «put on» these hats and evaluate the situation using different aspects of thinking.

In distance learning, this method can be used in group discussions in virtual breakout rooms. There are also many online games aimed at developing analytical and critical thinking. For example, logic puzzles, quests, or quizzes that require finding solutions develop children's ability to think outside the box. These games can be integrated into the learning process through platforms such as Kahoot! or Quizlet. Reflection is an important component of critical thinking development, as it helps students evaluate their own actions and learning process.

However, the use of digital tools for interactive learning can be difficult for students or their parents due to technical problems or lack of knowledge of technology. Despite the challenges, these methods contribute to the formation of important skills necessary for the successful learning and development of children in the modern information society.

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## **THE USE OF INTERACTIVE APPLICATIONS FOR TEACHING YOUNGER STUDENTS IN DISTANCE EDUCATION**

The use of interactive applications for teaching junior students in distance education is an extremely important topic that relates to current approaches to improving the quality of the educational process. Due to the transition to distance learning caused by the COVID-19 pandemic and the introduction of martial law in the country, it has become necessary to adapt teaching methods to the online environment, especially for younger students who need special attention and support.

Interactive teaching methods are aimed at actively involving students in the educational process, which is especially important in elementary school, when students do not yet have a high level of independence and self-discipline. Interactive methods create conditions for the development of critical thinking, communication skills, creativity, and increase motivation to learn. In the distance format, this is especially important because without the teacher's direct presence, students may lose interest in learning.

The main interactive teaching methods in the distance format are: 1) Online games and educational quizzes, such as Kahoot, Quizlet, or Learning Apps, allow younger students to consolidate learning material in an interesting way. They motivate students to participate in the learning process through elements of competition and gamification, which is especially important for younger students. 2) Using videos and interactive lessons, where students can answer questions in real time or complete tasks while watching the material, contribute to better knowledge retention. Platforms such as EdPuzzle allow teachers to insert tasks or questions directly into the video, making the learning process more active and dynamic. 3) Collaborative online whiteboards and workspaces like Padlet, Jamboard, or Miro allow students and teachers to work together on projects in real time. Students can write, draw, add images and text to a shared whiteboard, making the learning process more engaging and interesting. 4) Interactive exercises and simulations. For example, PhET Interactive Simulations for science education allows students to experiment with different situations, which helps them better understand theoretical knowledge in practice. 5) In the distance learning format, you can organize creative flash mobs in which students perform certain tasks (draw, create applications, write poetry) and share the results through online platforms. This encourages self-expression and collaboration.

It should be noted that it is important to take into account the technical and organizational challenges that both students and teachers may face and look for ways to overcome them to ensure equal access to quality education. The use of interactive teaching methods in a distance format significantly improves the quality of the educational process for younger students.

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### **FORMS OF INTERACTION BETWEEN TEACHER AND PARENTS DURING DISTANCE LEARNING**

The relevance of studying the impact of teacher-parent interaction on the success of distance learning is due to the growing role of online education in the modern world, especially after the COVID-19 pandemic and the full-scale invasion of the aggressor country. Distance learning has become a necessary tool to ensure a continuous educational process, but at the same time, it has revealed a number of problems related to the motivation of younger students, the organization of the educational process, and the interaction between participants in the educational environment.

The forms of teacher-parent interaction that influence the success of distance learning include a wide range of tools and methods aimed at effective communication and support for students in the learning process. In particular, regular online consultations that teachers can organize with parents through online platforms (Zoom, Google Meet) to discuss students' successes and problems. Such consultations create an atmosphere of mutual respect and cooperation. Electronic diaries and progress monitoring systems (e.g., Google Classroom, Moodle, Microsoft Teams), which allow parents to monitor their child's progress in real time. The teacher provides feedback on completed assignments, grades, and the level of participation in online lessons, which helps parents respond quickly to the needs of the student. Various types of mailing and informing via messengers (Viber, Telegram, WhatsApp) to quickly inform parents about class schedules, changes in the program, important events, or additional learning resources. Organizing joint educational hours and extracurricular activities helps to establish closer cooperation and creates an atmosphere of support for students. Joint activities motivate children and strengthen the connection between academic and family life. Constant feedback from parents on the difficulties faced by the student during distance learning. Parents may indicate difficulties in understanding the material or lack of motivation. This helps the teacher to adjust their approaches and look for new methods to improve learning efficiency. The introduction of a portfolio for students with the support of parents will be useful if a student needs special attention. The teacher can also encourage parents to participate in the learning process, for example, by helping to organize the learning space at home, controlling the schedule and time for homework. Parents who support their child in these aspects create favorable conditions for their child's successful learning. In general, effective interaction between teachers and parents helps to support students, create conditions for quality learning, and foster positive motivation in distance education.

Thus, the success of distance learning largely depends on effective interaction between the teacher and parents. Various forms of collaboration help to create a supportive environment for students.

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### **STEM-EDUCATION IN THE CONTEXT OF THE MODERNIZATION OF THE EDUCATION SYSTEM**

Modernization of the education system involves the integration of innovative technologies and best practices into the educational process. STEM education meets the needs of the modern economy based on innovations and technologies, so its implementation is essential for training future professionals in many fields. In the context of reforming the Ukrainian education system, STEM can become an important factor in training highly qualified personnel who will be able to contribute to the development of the national economy, science and technology. Therefore, we need to invest in teacher training programs, modernize educational programs.

STEM (Science, Technology, Engineering, Mathematics) is an educational concept that combines scientific knowledge, technology, engineering and mathematics into a single learning system that allows students to acquire practical skills and develop critical thinking, analytical skills and an innovative approach to problem solving. In particular, STEM education promotes the synthesis of knowledge from different disciplines, which helps students to see the relationship between science, technology, engineering and mathematics. STEM education focuses on solving real-world problems and tasks, which encourages students to critically analyze, be creative.

STEM contributes to the development of innovative skills that are the basis for the development of startups, technological breakthroughs, and solving global challenges. However, effective implementation of STEM education requires access to modern technologies, laboratories, and tools, which is a challenge for many educational institutions. Successful implementation of STEM also requires a high level of teacher competencies in science, technology, engineering, and mathematics. However, there is currently a shortage of such specialists in many countries, including Ukraine. Therefore, it is necessary to update educational programs to include more integrated courses with scientific and technical components, as well as to take into account the practical orientation of STEM.

STEM education is the basis for training professionals who can adapt to changes in the labor market, create new technologies, and contribute to economic growth. Practical tasks and projects that are specific to STEM help students gain experience that meets the needs of the modern labor market. The creation of modern research and innovation centers in schools and universities is a key factor in the development of STEM education in Ukraine. This will provide students with the opportunity to experiment, put their ideas into practice, and gain practical skills.

Thus, STEM education is a key component in the process of modernizing education, as it promotes the development of critical thinking. Prospects for the development of STEM education in Ukraine include updating curricula, improving material and technical resources, training teachers, and ensuring equal access to STEM education.

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### **PECULIARITIES OF DEVELOPING COHERENT SPEECH IN PRIMARY SCHOOL CHILDREN THROUGH INTERACTIVE TECHNOLOGIES.**

The **aim** of this study is to examine how interactive technologies contribute to the development of coherent speech in primary schoolchildren. In today's digital world, adapting the educational process to modern needs is essential. Interactive technologies offer opportunities for individualized learning, increase motivation, and engage students in active learning, which plays a key role in speech development and communication skills.

**Results.** Coherent speech, defined as the ability to build logical, structured, and complete statements, is a critical skill that primary schoolchildren are just beginning to develop. This process requires regular practice, and interactive technologies provide a practical approach to achieving this. Interactive methods, such as group projects, role-playing games, and training simulations, stimulate active student participation, which positively impacts speech development and logical thinking [2].

The use of interactive technologies is grounded in several pedagogical concepts:

- **Constructivism:** Learners create their own knowledge by interacting with the material, leading to deeper understanding.
- **Social-cognitive theory:** Students learn through observation, imitation, and interaction with peers.
- **Zone of proximal development:** Knowledge is more effectively acquired through collaboration with teachers or peers.
- **Dialogic learning:** Learning is enhanced through dialogue and cooperation. These methods facilitate the development of coherent speech through various approaches:
- **Group discussions:** Foster opinion exchange, develop expressive and argumentative skills.
- **Role-playing games:** Help students adjust their speech to different contexts, boosting motivation.
- **Game-based learning:** Reduces tension, makes learning fun, and promotes speech activity.
- **Multimedia tools:** Increase students' understanding of language structures, spark interest, and help retain new vocabulary.

**Conclusion.** The use of interactive technologies in primary education significantly aids in developing coherent speech, communication skills, and increasing motivation for learning. Implementing these technologies in a structured and comprehensive way will ensure optimal results in the speech development of young learners.

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**LINA KOSTENKO'S “NOTES OF A UKRAINIAN MADMAN”  
AS A WORK OF DOCUMENTARY FICTION**

The novel *“Notes of a Ukrainian Madman”* masterfully blends fiction, journalism, and personal diary elements, creating a layered and engaging narrative. This unique genre mix invites readers to immerse into the protagonist's intimate experiences against the backdrop of global events, showing how personal life intertwines with politics and how individual stories merge with collective experiences.

The novel's sharp irony and biting sarcasm highlight the absurdity of contemporary life in Ukraine, reflecting the challenge of processing trauma through the lens of daily reality. This genre-blending approach enables the author to create a panoramic view of Ukrainian society, where the protagonist's reflections serve as a mirror to social processes

This study **aims** to analyze Lina Kostenko's novel *“Notes of a Ukrainian Madman”* as a documentary work that goes beyond fiction, serving as a chronicle of political and social events in Ukraine during the early 2000s.

**Results.** The novel *“Notes of a Ukrainian Madman”* combines elements of fiction, journalism, and personal diaries, creating a unique genre blend that immerses readers in the protagonist's personal experiences against a backdrop of global events. Filled with irony and sarcasm, the novel highlights the absurdities of modern life in Ukraine. The work can be considered documentary in nature due to several key aspects.

*First*, its socio-political context captures life in Ukraine under L. Kuchma's rule, detailing economic challenges and social issues. The protagonist describes numerous catastrophes, scandals, and political intrigues unfolding across the country.

*Secondly*, the novel features personal testimonies from the protagonist, which reflect the spirit of the era. Through his notes, readers gain insight into his inner world and his responses to external events, allowing them to feel the emotions and struggles of a person seeking meaning amid the chaos around him.

Thus, *“Notes of a Ukrainian Madman”* serves as a unique chronicle of an era, capturing not only the protagonist's personal experiences but also significant historical moments – from everyday struggles to major political changes in Ukraine. The author creates a layered portrait of Ukrainian reality, where the protagonist's individual story intertwines with the collective memory of the people, and daily observations take on symbolic meaning.

Through the lens of diary entries, readers can trace the transformation of social consciousness, shifting values, and the emergence of a new Ukrainian identity amid postcolonial challenges and globalization.

**Conclusions.** Lina Kostenko's novel *“Notes of a Ukrainian Madman”* is more than a work of fiction; it is a significant document of its time, capturing social moods, political transformations, and cultural shifts in Ukraine. Through the lens of personal experiences, emotional turmoil, and vivid social realities, the novel offers a profound and comprehensive understanding of life in early 21st-century Ukraine, reflecting the collective experience of an entire generation.



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### **ORGANIZATIONAL ASPECTS OF THE HEALTH-PRESERVING ENVIRONMENT FOR STUDENTS OF TECHNICAL SPECIALTIES IN HIGHER EDUCATION INSTITUTIONS**

The **aim** of the research is to study the organisational aspects of creating a health-preserving environment for students of technical specialities.

**Results.** Students of technical specialities often face high levels of stress, many hours of theoretical and practical work, and prolonged sitting. These factors increase the risk of physical and psychological health problems, such as eye strain, musculoskeletal diseases and chronic stress (Korol, 2014).

The importance of a health-preserving environment in educational institutions was considered in their scientific works by scientists Balycheva N. V. (2021), Rybalko L. M., Permiakov O. A., Sinitsa T. O., Ostapov A. V., Yopa T. V. (2020). The issue of forming a health-preserving environment in educational institutions was studied by Korol S. A., Karpenko Y. I. (2017).

Therefore, the creation of a health-preserving environment in higher education institutions is an important component of the educational process to improve the overall performance and development of physical qualities of students of technical specialities [5].

The study was conducted on the basis of the Department of Physical Education of NTU 'KhPI'. By analysing the programmes of the educational component 'Physical Education' and work plans for students' health activities that contribute to a health-preserving environment, the organisational aspects of the health-preserving environment were identified:

- Physical aspect: Creation of areas for recreation and physical activity (gyms, fitness areas, places for active breaks, recreation areas in dormitories). Availability of medical stations and regular medical check-ups to monitor health.
- Regulatory aspect: Regulation of the learning load with breaks and changes of activity.
- Physical activity: Compulsory physical education classes. Organisation of sports and recreational competitions. Creation of conditions for independent sports (sports grounds, simulators). Organisation of weekend hikes.
- Disease prevention and promotion of a healthy lifestyle: Organising lectures and trainings on healthy lifestyles. Preventive measures against bad habits.

**Conclusion.** The study of the organisational aspects of creating a health-preserving environment for students of technical specialities has shown that the successful implementation of these measures requires a systematic approach that requires cooperation between different departments of the educational institution, as well as the active participation of students themselves.

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### **THE REPRODUCTION OF UKRAINIAN IDENTITY IN THE ARTISTIC PLANE OF THE WRITER MYKOLA ADAMENKO**

The **purpose** of the paper is to explore how Mykola Adamenko reproduces Ukrainian identity through his literary work, and to identify the main themes and motifs that determine his contribution to national self-determination and cultural heritage of Ukraine.

**Results.** Ukrainian identity, which is a complex combination of cultural, historical, and social components, has always occupied a special place in the lives of Ukrainians. It is reflected in many aspects, such as language, customs, traditions, as well as in art and literature. One of the authors who has skillfully recreated these elements in his poetry and prose is Mykola Adamenko.

Adamenko is one of the authors who, through his poetry and prose, conveys a deep connection to Ukrainian culture, history, and traditions. His work includes poetry, prose, and local history, where the central themes are love for the native land, the struggle for freedom, patriotism, and spiritual formation. His first works, such as the poetry collection *The Flood* (1985), as well as the novel *The Law is Taiga* and its sequels, received recognition and awards.

The collection *Plavba* (2016) covers important historical events in Ukraine, including the Revolution of Dignity and Russian aggression in the east of our country. The writer's works are characterized by expressive images, symbols and deep philosophical reflections that convey the versatility of the Ukrainian soul and the desire for freedom. Adamenko not only recreates, but also reinterprets Ukrainian identity, creating a strong connection between the past, present and future of the Ukrainian people.

**Conclusions.** The work of Mykola Adamenko is a prominent phenomenon in Ukrainian literature, which plays an important role in the formation and reproduction of national identity. His works are a kind of code that preserves and transmits the values of the Ukrainian people, stimulating society to rethink its history and role in the modern world. Through his work, the Ukrainian nation reflects its unique essence, spiritual depth, and desire for self-determination.

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## **FACTORS THAT INFLUENCE INSTRUCTOR’S DECISION TO INCORPORATE TECHNOLOGY INTO EDUCATIONAL PROCESS**

The **purpose** of the paper is to define the basic technological factors that can affect the learning process.

**Results.** Technology has changed the way instruction is delivered in institutes and universities due to the circumstances we have to live in nowadays, especially in terms of online education. According to recent research, at least two-thirds of all higher educational establishments propose different distance courses and workshops to keep competitiveness among other institutions of higher learning and meet various student’s demands in the framework of modern challenges. Universities are providing instruction with the instruments essential to implement technology and provide online environment.

### **Internal Factors that can affect instructor’s decision.**

The most common **internal factors** that influence an instructor’s decision to incorporate technology in teaching are competence, personal beliefs and preferences, behavioral component of prejudice and fears. The decision to apply new methods into instruction is also accompanied by instructor’s self-evaluation as a professional teacher.

### **External Factors that can affect instructor’s decision.**

**External factors** incorporate age and gender of students’ demographics, specifically age and gender, class size, and institutional support. When faculty members use technology, the following basic external demographics factors as age and gender, that can affect the learning process, should be taken into account. The case is that these members of the process of education may suffer from the inefficient knowledge or training that are essential to apply technology. This can provoke competency problems older students.

**Conclusions.** Successful application of technology, accompanied by distance educational programs and instructions, into the curriculum is a multifaceted task for higher educational establishments. Various factors, namely, internal and external ones, can affect instructors’ implementation of technology in the learning process.

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## **SECONDARY EDUCATION IN WAR KHARKIV**

Providing secondary school students with education during hostilities is a very topical problem for modern Ukraine. Especially it concerns the western regions of the country like Kharkiv where, on the one hand, the war is very close with active bombing of civilians, and on the other hand, according to the city's Education Department data, there are nearly 102 500 secondary school students this academic year (Офіційний, n.d.).

The **purpose** of our work is to describe learning opportunities for Kharkiv secondary school students.

**Results.** It is natural that face-to-face learning in usual school buildings is extremely dangerous in the city in current circumstances. So, Kharkiv authorities have been looking for the solution of this issue since the beginning of the war (Holubnycha et al., 2024). And, as a result, for this academic year we have got two variants:

- a mixed format of learning when students can get face-to-face education two or three times a week either in “Metroschool” that works at several underground stations and, according to the city's authority, is able to accommodate nearly 3000 students or at 3 schools built deep underground that can provide almost 2500 students with secondary education (moreover, some more similar underground schools are being built in Kharkiv just now) and three or two days a week of online learning;
- and another format is online learning, which has become universal means of learning since Corona virus pandemic.

As it can be seen, most secondary school students learn completely online. Although some schools try to rebuild their cells into bombshells for teaching their students face-to-face there, not many parents are ready to allow their children to attend classes in such conditions as consider them unsafe and unsuitable. And the quantity of places in newly built undergrad schools is not enough for the big city.

**Conclusions.** Today secondary school education is provided for Kharkiv students in two formats: mixed and online learning. It is significant that only small part of students has access the mixed format.

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### **FORMATION OF INTERCULTURAL COMMUNICATIVE COMPETENCE OF MANAGERS OF FOREIGN ECONOMIC ACTIVITIES IN THE ON-LINE LEARNING SYSTEM**

The **aim** of scientific research is to substantiate the conceptual foundations of online learning in the process of forming intercultural communicative competence of managers of foreign economic activity in the conditions of digital pedagogy.

Main **results.** The professional training of future managers of foreign economic activity (FEA), capable of creatively solving today's complex problems, is considered one of the decisive levers for overcoming the economic crisis in Ukraine and the development of the state in the post-war period. An essential aspect of this problem is the formation of cross-cultural professional interaction of managers by means of online learning, as an objective prerequisite for the current state of information and communication technologies and future international entrepreneurial activity. The initial parameters of the educational result in the format of online training should be the formation of the intercultural communicative competence of the future specialist at the level of fluency in a foreign language and the digital competence manager of FEA.

We have developed a pedagogical model of online training, which structures didactic methods according to the goals and content of the educational training of managers of FEA; determines the adaptive organizational forms of the pedagogical process based on digital content, substantiates the technological principles of pedagogical interaction in the "teacher-acquirer" system; creates pedagogical conditions for the activation of interactive interaction of students in the process of forming their intercultural communicative competence in the conditions of a SMART educational environment. The pedagogical system of online learning is built on the basis of modernization of the content of education, the provisions of digital pedagogy and self-management of educational and creative activities, the introduction of information and communication technologies and artificial intelligence into the educational environment in the process of professional training of managers of FEA.

**Conclusions.** The conceptual principles of the formation of intercultural communicative competence of managers of foreign economic activity in the on-line training system are determined by the following directions: activation of language training of applicants; implementation of game simulation models of professional intercultural communication; formation of digital competence of teachers and students; introduction of didactic means of network communication; development of self-management skills of educational and creative activities of future specialists; forming a SMART educational environment; increasing the level of individualization of the educational process and its digitalization.

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### **DEVELOPMENT OF METHODOLOGICAL WORK IN AN INSTITUTION OF PRE-SCHOOL EDUCATION**

Preschool education today is fundamentally changing. Its basic component guides teachers to revise many outdated approaches, and updating the content is based on the recognition of the priority of the development of the child's personality, the values of the meaning of his existence. It is the preschool section that occupies a fundamental place in the formation and development of a child as a subject of life creation. In order for the preschool teacher to become an active subject of personal improvement, it is necessary to approach the organization of multifaceted methodical work in a comprehensive manner. Thanks to active participation in methodical work, a teacher can acquire and consolidate a certain status, improving the educational process, widely using innovations, contributing to the improvement of the quality of education in accordance with the state standards of preschool education of Ukraine.

Methodical work is a multifaceted concept and involves the performance of a number of important tasks in a preschool education institution: a systematic study of the state of the educational process, the professional competence of teachers, the dynamics of changes in the development of preschool education students; consulting and helping teachers in planning the educational process with children; organization of cooperation with parents; modeling the content, forms and methods of the educational process; improvement of pedagogical skill and improvement of professional competence of teachers; study, generalization and dissemination of promising pedagogical experience; creation of a favorable psychological climate in the teaching staff; selection and processing of methodical, scientific literature and providing recommendations for its implementation in the educational process of a preschool education institution. The main thing in methodical work is to provide real, effective help to the teacher. Methodical work in a preschool education institution is a special complex of practical activities based on the achievements of science, advanced pedagogical experience and aimed at comprehensively increasing the competence and professional skill of each educator and aimed at increasing the creative potential of the teaching staff as a whole.

Modern preschool education institutions are directly interested in promoting the professional growth of their employees, increasing their professional competence, and creating optimal conditions for work. Until now, this task was solved at the expense of methodical work. But in connection with socio-economic conditions, scientific work gained great importance. This led to the emergence of such a type of activity as "scientific and methodical".

Scientific and methodical activity is a system aimed at the integral development of all components of the pedagogical system. This activity occupies a special place in the management system of a preschool education institution, since it contributes to the activation of the teacher's personality, increasing his professional competence, thereby leading to an increase in the quality of education. That is why the problems of selecting the innovative content of scientific and methodical work, organizing its productive forms, and evaluating efficiency at the current stage are becoming very relevant. Thus, we determine that scientific and methodical activity is a continuous system of activities aimed at the production of scientific knowledge and the transfer of advanced pedagogical experience, aimed at updating the content of education, improving the professional skills of pedagogical workers.

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### **THEMES OF UKRAINIAN WOMEN’S LITERATURE**

The theme of Ukrainian women’s literature covers a wide range of issues related to women’s roles in society, feminist ideas, and social change. From the early 19th century to today, Ukrainian literature has undergone significant shifts in its portrayal of women, their societal roles, and their identities. Over time, the themes in this literature have evolved, adapting to each historical period. For example, during the Romantic era, there was a focus on the sensitivity and complexity of female characters. In modernist and postmodernist literature, themes and female characters began to reflect new social realities (Веретюк, 2020).

This paper **aims** to analyse the themes in Ukrainian women’s literature.

**Results.** At the end of the 19th and beginning of the 20th century, a generation of women writers, including Marko Vovchok (Maria Vilinska), Natalia Kobrynska, and Olha Kobyljanska, emerged in Ukrainian literature. These authors promoted feminist ideas, addressing themes of women’s emancipation, the right to self-realization, and the struggle against stereotypes. This period was marked by the influence of the feminist movement, which introduced new portrayals of heroines capable of expressing their own desires and aspirations. Ukrainian women’s literature is a unique phenomenon that developed over the 19th to 21st centuries, reflecting the evolution of women’s writing, the rise of feminist thought, and the transformation of social views on women’s roles. From early prominent figures like Marko Vovchok, known for her socio-psychological prose, Olha Kobyljanska with her feminist novels, and Lesia Ukrainka with her philosophical poetry, to the Sixtiers, particularly Lina Kostenko, and on to contemporary authors such as Oksana Zabuzhko, Maria Matios, and Sofia Andrukhovych, one can trace the evolution of themes and artistic expression. Key themes include social issues (women’s position in society, the struggle for emancipation), psychological exploration (women’s inner world and personal development), and national identity (connections to culture and historical memory). Contemporary Ukrainian women’s literature is marked by a wide range of genres and forms, a willingness to address previously taboo topics, and active engagement in the global literary scene. Key features include autobiographical elements, psychological depth, and experimentation with form. For example, in *“Fieldwork in Ukrainian Sex”*, Oksana Zabuzhko portrays women as strong individuals striving to find their place in society. Overall, contemporary Ukrainian literature presents a diverse array of themes and female characters, where women are depicted not only as family caretakers but also as active participants in social processes. In Tamara Horikha Zernia’s novel *“Daughter”*, the main female character chooses service to her country over traditional family roles, highlighting a shift toward female autonomy.

In **conclusion**, the themes of women’s literature in Ukraine are dynamic and multifaceted. From classical portrayals to modern feminist narratives, Ukrainian women writers continue to explore and redefine women’s roles in society. This evolution reflects shifts in cultural contexts and actively contributes to shaping new social norms and values.

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### **INNOVATIVE FORMS OF APPROACHES TO MANAGEMENT OF DEVELOPMENT IN THE FIELD OF EDUCATION**

Education is one of the key areas of social development that determines the future of economic, social and cultural progress. In the conditions of globalization, rapid technological changes and digital transformation, there is a need to introduce innovative forms of development management in the field of education. Traditional methods no longer always meet the requirements of the times, so the education system needs to adapt to new challenges. Innovative approaches make it possible to increase the efficiency of management, ensure the flexibility of educational processes and contribute to the harmonization of the educational environment with the needs of the labor market and society as a whole.

The **purpose** of this study is to investigate innovations in the field of educational management that will contribute to the successful development of the educational system in the conditions of the modern world.

Innovative forms of management involve the introduction of the latest methods, technologies and organizational approaches to improve the quality of educational processes. Among such forms can be distinguished:

1. Electronic management of education (E-Management) is a management process automation system that includes electronic document management, personnel management, curriculum planning and other administrative functions. Such platforms make it possible to speed up decision-making processes and increase their efficiency.
2. Models of distance and mixed learning, these forms provide flexibility in learning that meets the modern requirements of students and teachers, allowing to improve the quality of education through the integration of the latest technologies, such as video lectures, online tests, interactive tasks.
3. Personalized learning – this approach focuses on the individual needs of each student, providing flexible educational programs that adapt to the student's pace and learning style. This is achieved through the use of data analysis and artificial intelligence, which allows for more accurate monitoring of progress and implementation of appropriate corrective measures.
4. Inclusive management ensures accessibility for all segments of the population, in particular for people with special needs. This approach is based on creating conditions for equal access to educational resources and infrastructure, which contributes to the development of social equality.

Thus, innovative forms of development management in the field of education are key factors that determine the future development of this important field. The introduction of the latest technologies, adaptation of management strategies to modern requirements, as well as orientation to the individual needs of students and the labor market allow to increase the efficiency and quality of educational processes.

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### **THE MORE WE USE IT THE LESS WE VALUE IT: STUDENTS' CONCERNS REGARDING TECHNOLOGY TO LEARN ENGLISH IN BRAZILIAN SCHOOLS**

In line with modern perspectives, the Brazilian educational system has embraced digital technologies as valuable tools for teaching, including English. However, given the limited information on students' perspectives regarding the topic, this study aims to explore their level of acceptance of these practices through focus groups. To initiate the discussion, participants were asked for their views on how technology contributes to learning English. A total of 35 children and adolescents were selected to represent four elementary school groups from two different institutions.

It became evident that different values were assigned to technologies based on their frequent use. Of the nine students who prefer technology over teacher - believing they learn better without the professional - eight come from the private school where these tools are not used regularly. At the public school where the research took place, lab classes are held weekly alongside regular classroom set. In this setting, technology is often perceived negatively, and there is a clear preference for having a teacher in charge.

It's important to note that the trigger question was not intentionally designed to contrast these two options, instead, it was left to the students to make the connection between teachers and this resource. It is suggested that regularly using the platform for activities can lead to a sense of commonplace, resulting in its devaluation. For both human and environmental reasons, reports linking the experience of English classes in a computer lab to feelings of loneliness and frustration with applications are common in the literature and also arise from the current study. In conclusion, it is essential to prepare both teachers and students to become familiar with the tools being used; otherwise, the challenges encountered may negatively impact the teaching and learning process.

In addition, regular maintenance of digital platforms and the devices that support their use is essential – this includes updated phones, computers, headphones, cameras, microphones, and more. Additionally, school management and the political sphere must play a role in enhancing working and study conditions in Brazilian schools, whether in the context of language teaching or other subjects.

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**FOREIGN EXPERIENCE IN THE FORMATION OF FINANCIAL LITERACY  
IN YOUNGER STUDENTS IN THE EDUCATIONAL PROCESS  
OF PRIMARY SCHOOL**

The **purpose** of this topic is based on international experience, which shows that building financial literacy in the early stages of education is a priority in many countries. Successful practices show that integrating financial literacy into primary school curricula helps students not only learn basic financial concepts, but also develop skills in money management, saving, and making informed financial decisions.

The pedagogical aspects of financial literacy development in the educational process of students are reflected in the works of J. A. Lusardi, T. Lucy, and M. Mitchell, who focus on the development of financial literacy in developed countries: A. Lusardi, T. Lucy, O. Mitchell, who pay attention to the formation of financial literacy in developed countries.

The **results** of foreign experience in developing financial literacy in primary school demonstrate a number of positive effects. Countries that implement financial education programs for primary school students have achieved the following Results. Increased financial knowledge. Studies have shown that students who attend financial literacy classes have better basic knowledge of money, savings, budgeting, and financial management.

Improved financial decision-making skills. Students who have received financial education in primary school demonstrate a better understanding of the importance of budgeting, resource allocation, and rational spending.

Examples from practice: United Kingdom: The MoneySense project offers teachers and students various educational materials for teaching financial literacy. USA: The JA Finance Park program provides students with the opportunity to participate in simulations of real-life financial situations. Finland: Financial literacy lessons are integrated into general school subjects such as math and social studies.

In addition to purely financial knowledge, foreign programs help develop important skills such as critical thinking, planning and goal setting, and teamwork. These skills have a positive impact on a child's overall development and help them in later life.

The **conclusions** regarding foreign experience in the formation of financial literacy in younger students in the educational process of primary school can be formulated as follows: International experience shows that building financial literacy from an early age is key to developing a responsible attitude to money and economic decisions. This helps children to better navigate financial issues in their adult life. Practical teaching methods show that the use of interactive methods (games, simulations, role-playing games) increases children's interest and contributes to more effective learning. Thus, foreign experience can be a valuable source of ideas for improving the system of financial education in primary school, which will prepare children for real financial challenges in the future.

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### **MOTIVATIONAL APPROACHES TO THE PROFESSIONAL TRAINING OF FUTURE TEACHERS**

The **aim** of the article is to analyze motivation and determine motivational approaches to the professional training of future teachers to enhance their professional efficiency and successfully adapt to modern learning conditions.

**Results.** The analysis of motivational approaches in the professional training of future teachers has revealed several key aspects that can significantly enhance their professional effectiveness and adaptability to modern educational challenges. The results of the study highlight the following:

1. **Formation of Motivational Support Skills:** The development of specific skills aimed at providing motivational support during the educational process is crucial for future teachers. This approach ensures that students remain engaged and motivated throughout their learning journey.
2. **Teacher as a Motivator:** The research emphasizes the vital role of teachers as motivators. Proper training for educators, equipping them with strategies to effectively inspire and encourage students, proves essential for maintaining high levels of student motivation.
3. **Individualized Learning Approaches:** Recognizing the diversity of students' psychological types and their unique motivational drivers is fundamental. Future teachers must be equipped to customize their teaching methods to address these differences, ensuring more personalized and effective instruction.
4. **Adaptation to Employer Expectations:** Future teachers must learn to align their pedagogical methods with the motivational needs of employers. This ensures that students' skills and motivation match the demands of the labor market, enhancing their employability and career success.
5. **Innovative Pedagogical Methods:** The integration of innovative teaching methods into the educational process is vital. Without these innovations, it is increasingly difficult to meet the rising demands of both the workforce and the educational system. Mastering these methods enables teachers to motivate students more effectively and prepare them for future challenges.
6. **Distance Learning and Motivation:** The shift to distance learning requires new motivational strategies. The results demonstrate that this format influences student engagement and requires innovative approaches to maintain teamwork, collaboration, and responsibility for learning outcomes in a virtual environment.

In summary, addressing the motivational challenges in the professional training of future teachers involves adopting a multifaceted approach, considering psychological, pedagogical, and technological advancements.

These results provide a foundation for further research and practical application in enhancing the motivation of both educators and students in modern educational settings.

**Conclusions.** Thus, solving the issue of motivation for learning and professional activities lies in considering current socio-economic conditions, technological advancements, cultural changes, and new scientific approaches.

These factors make the study of motivation an important and relevant task for pedagogical and psychological science, opening new opportunities for improving the effectiveness of educational and professional processes in preparing both future teachers for practical activities in higher education institutions and the students themselves.

Undoubtedly, the outlined perspective is far from exhaustive and requires further research, especially in light of the emergence of new educational technologies, globalization shifts, and integration processes in the modern world, and the ongoing impact of innovative technological solutions in the fields of science and technology. These developments necessitate the adaptation of motivational strategies to support the educational process in vocational and vocational-pedagogical institutions.

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**ON THE TRANSFORMATION OF WEDDING CEREMONIES  
IN EASTERN SLOBODA UKRAINE UNDER  
SOVIET IDEOLOGY AND RUSSIAN AGGRESSION**

**Purpose.** Ukrainian wedding ceremonies, shaped over centuries, are known for their remarkable diversity, uniqueness, and originality, which vary by region. Historical eras and events, including the Soviet period and the Russian military aggression in 2022, have significantly impacted their evolution. This research aims to examine the effects of Soviet ideology and the 2022 Russian military aggression on wedding traditions in the Kharkiv region.

**Results.** During the post-war period, the USSR exercised a strong ideological influence on its citizens’ lives, particularly affecting cultural traditions like ceremonies. Soviet authorities reinterpreted Ukrainian traditions, viewing them as outdated remnants of the Kyivan Rus era. As a result, elements like the “rushnychok of happiness” (a traditional embroidered towel), the greeting of newlyweds with bread and salt, and the sprinkling of grain were ridiculed as “remnants of the past”. Instead, official greetings from party representatives became standard at Ukrainian weddings during this time.

In 20th-century Ukrainian society, weddings – a key form of family and household ceremonies – began to take on more public, collective forms. The establishment of Soviet wedding culture included the rejection of religious elements, the creation of special institutions, and the development of new ceremonial practices. These revised Ukrainian wedding traditions were infused with socialist values, serving as a tool of ideological and anti-religious influence on the public. The newly created ceremonies became essential in shaping the “new Soviet person”.

The 2022 Russian military aggression against Ukraine also impacted wedding traditions, affecting both everyday life and ceremonial practices. Before February 2022, Ukrainian couples typically planned weddings a year or more in advance. Now, this timeline has shortened significantly. The war has also affected certain traditional ceremonies, such as engagements, especially in eastern regions like Kharkiv. Our research found that out of 100 young couples who married at the Central Wedding Palace in Kharkiv from January 2023 to October 2024, none observed the traditional engagement ceremony.

Since the start of the war, many wedding traditions, including house viewing and invitation ceremonies, have not disappeared but have adapted. Today, these rituals are often conducted online through platforms like WhatsApp, Telegram, and Viber. Weddings in a traditional Ukrainian style have also become a major trend since 2022.

**Conclusions.** This research is an important step toward popularizing Ukrainian wedding traditions and contributes to a deeper understanding of Ukrainian mentality and national identity.

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### **AI-POWERED TOOLS IN ADAPTIVE FOREIGN LANGUAGE LEARNING**

In today's multicultural world, foreign language proficiency is an essential professional skill across all fields, making foreign language learning and teaching a core component of modern educational programs. However, limited teaching hours and the shift to distance learning require efficient use of time and resources to build communicative competence. To address these challenges, educators are increasingly adopting innovative methodologies and digital resources – particularly those incorporating *artificial intelligence (AI)* – to enhance learning outcomes. Traditional methods often fail to address students' individual needs or align with the demands of modern educational environments.

This paper **aims** to briefly overview the potential of AI-powered tools in adaptive foreign language learning.

**Results.** It should be noted that these tools, with their advanced algorithms, support adaptive learning by accommodating different levels of student preparedness. This approach allows for the delivery of personalized materials and tasks that align with each learner's language proficiency and individual or professional interests. Currently, these tools are also valuable for assessment, enabling teachers to adjust materials based on test results and overall educational objectives. This adaptability fosters a supportive learning environment, creates a positive emotional atmosphere and motivation, and facilitates the development of foreign language communicative competence with a focus on the professional field. The most popular generative AI-powered tools include chatbots like *ChatGPT, Claude.ai, Copilot, and Gemini*. These tools can operate in dialogue mode, respond to questions, and generate text-based materials tailored to specific educational requests from users. Their algorithms can assess users' language skills, provide feedback on errors, and recommend resources to improve language proficiency. AI-powered tools offer distinct advantages for adaptive foreign language learning, as they quickly identify knowledge gaps and focus attention on areas needing improvement. Additionally, AI can adjust learning materials to match students' proficiency levels and interests, create assignments, and compile vocabulary and terminology lists. However, limitations remain: AI may struggle to interpret context and cultural nuances, which can lead to inaccuracies and complicate the implementation of such tools. Therefore, AI-powered tools should serve as supplementary resources, and their outputs should be critically evaluated to ensure accuracy and maintain academic integrity (Четверик, 2024).

**Conclusions.** Teachers must balance technology with traditional methods, guiding students in effectively using these tools. This involves teaching students how to formulate queries, analyse information critically, and approach it thoughtfully. A key responsibility is to promote academic integrity, helping students avoid plagiarism and engage meaningfully with their assignments.

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### **MOTIVATION OF STUDENTS AFTER THE WAR: STRATEGIES FOR ENGLISH LANGUAGE TEACHERS**

Since the war, Ukraine's education system has faced many challenges, including a decline in student motivation. Psychological trauma, disruption of the usual way of life, and problems with adaptation have a significant impact on their desire to learn.

English teachers need to find new approaches to encourage or maintain students' interest and create a comfortable learning environment. Here are some effective strategies for increasing motivation:

- Emotional support and creating a safe atmosphere. Students need to feel that learning is a space where their emotions and experiences are respected. Regularly talking about how they are feeling and discussing events that are bothering them in a non-threatening way will help them relax and focus on their learning.
- Meaningful learning with an emphasis on practicality. Class topics should be adapted to the needs of today, including exercises to learn modern vocabulary about peace, cooperation and the future. This will help students to understand how English can contribute to their self-realization and integration into the world.
- Project activities and interactive formats. Collective projects on topics that are important to students (for example, creating posters on peace) help to restore a sense of community and help develop language skills through creative tasks.
- Use of modern technologies. Online platforms, interactive games, and video lessons can diversify the learning process and make it more interesting. These approaches also help to develop learners' independence.

English language teachers play an important role in helping students return to active learning after a difficult time. By paying attention to the emotional state, adapting lesson content and introducing new methods, they can gradually restore motivation and help students to develop successfully in the new reality.



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### **GASTRONOMIC CULTURE IN MODERN MODELS OF PERSONAL CREATIVITY**

Modern globalization processes have significantly changed the food industry, influenced the technological processes of production of food industry products. It is known that the Covid-19 pandemic has created conditions for rethinking conceptual approaches to population nutrition. Rethinking the politics of the economic, environmental and social components determined approaches to Post-Covid 19 food. The socio-economic situation in Ukraine was affected by the war, which significantly changed the gastronomic culture in modern socio-cultural contexts.

In this regard, the study of gastronomic culture in modern socio-cultural contexts becomes relevant. Nutrition is an integral part of a person's life and one of the most important phenomena of social life.

The problematic situation is caused by a number of contradictions such as: pandemic, war, nanotechnology, consumer culture. An affirmative factor is that gastronomic culture includes a number of opportunities for improving the quality of life in modern models of life creation.

The philosophical and anthropological field of gastronomic culture research is expanding thanks to the works of such scientists as: *Paolo Rossi, Turen Ari, Olhof Fritz, Jennifer Ryan, Tony Aspler, Gordon Pape, Hamsun Knuth, Bryson Bill*. Gastronomic culture is considered as a system of permissions and objections, a system of rules and taboos.

Enriching the life-creating model of human existence, the Italian philosopher Paolo Rossi invites us to an interesting journey called "Eating". Paolo Rossi creates a synergy of science and art. Cultural and anthropological meanings go beyond the research of anthropologists and psychologists. The culture of physical and intellectual consumption is considered in the post-information space in an inextricable connection, forming a tandem of physical and spiritual.

Structural elements of gastronomic culture are culinary culture, gastronomic reflection, cultural meanings of food consumption. Culinary culture reveals the technological processes of food preparation. Gastronomic reflection is determined by a number of ideas about the importance of food in the life-making of an individual, what is food in general.

The cultural meanings of food consumption deepen the understanding of defining the rules of the relationship between people and food, what food is prepared for, and how the process of its preparation depends on the culture of peoples.

In the conditions of the globalization processes development, in the conditions of war, the priority task is the preservation of the country's gastronomic culture for future generations.

### **PROBLEMS OF TEACHING AFTER THE WAR AND THEIR SOLUTIONS**

Unfortunately, the war will leave behind many challenges for the educational process and beyond. Ukraine suffered great losses during the war. One of the most important and vulnerable areas is education.

The war left behind many destroyed schools, universities and other educational institutions. During the war, many teachers may be forced to leave their posts or flee the country. As a result, there is a shortage of qualified personnel after the war. Stress and trauma negatively affect students' ability to learn and teachers' ability to teach. After a war, a country is often in economic crisis, which limits the financial capacity to rebuild the education system.

How to solve all these problems?

1. It is necessary to attract both national and international resources to rebuild schools and universities.
2. Organize professional development programs for teachers. International experts should be brought in to share their experience and knowledge.
3. It is important to organize psychological support for students and teachers.
4. In the modern world, many areas of life are moving online. Distance learning is not an exception, and if we improve the organization of the online educational process, it will soon become more effective than face-to-face education.
5. Involvement of international organizations and charitable foundations to finance the restoration of education.
6. Use of innovative technologies to modernize the educational process.

Restoration of the education system after the war is a complex and long process that requires coordinated actions of both the government and the entire society. Education is the foundation on which the future of the country is built, and therefore its restoration should be a priority for each of us.

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### **AI-POWERED FEEDBACK AND PEER COLLABORATION: ENHANCING CONCEPTUAL UNDERSTANDING IN ENGLISH WRITING**

This study investigates the impact of AI-powered feedback and peer collaboration on lower secondary school students' development of conceptual understanding in writing.

The research focused on the use of Essay Assessment Technology (EAT), an AI-powered software designed to provide students with automated feedback on grammatical errors, punctuation, and spelling, and examined its effect on students' learning compared to traditional peer feedback.

The findings revealed significant differences in students' engagement with the feedback and their understanding of the feedback categories. In the target class, which used EAT, students were more engaged in identifying specific grammatical errors and applying the rules they were taught to correct their work.

This suggests that EAT helped students develop a deeper understanding of the essential features of the target concept (grammar, punctuation, spelling) and how to apply them to improve their writing.

The study concludes that AI technology, particularly EAT, can be a valuable tool for supporting students' learning by providing them with clear and specific feedback. However, the effectiveness of such tools depends on the pedagogical approach used and the context in which they are implemented.

While EAT can be a powerful resource for promoting conceptual understanding and enhancing students' writing skills, it is essential to ensure that it is used within a supportive learning environment that facilitates meaningful interaction and collaboration.

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### **LEARNING ENGLISH IN UKRAINE**

Learning English in Ukraine is more relevant today than ever. It will be even more important in the future, because English is an international language of communication, which opens up wide opportunities for communication, study, travel, and work at the international level.

It's not a secret that Ukrainians cannot boast of their knowledge of English language. Very few people know English to some degree, and only a few can use it practically.

Recently, the number of people interested in learning English has increased. However, the number for the country is still small and on June 04, 2024, the law “On the use of the English language in Ukraine” was adopted by the Verkhovna Rada.

Let's consider the main changes: certain positions now require knowledge of the English language. They are civil servants, heads, and deputies of state administrations, police officers, prosecutors, customs officers and contract workers; compulsory study of the English language is introduced in all educational institutions, starting with kindergartens (the norm “Using English for learning in kindergartens and other preschool institutions for children” will enter into force from September 2026); mandatory English language exams will be developed for different categories of population (schoolchildren, officials and military personnel); the state will financially support the study of the English language and provide working conditions for teachers; new standards for the use of the English language in transport and in the field of health care are being introduced.

Some Ukrainians do not agree with the need for a bill on the English language due to concerns about the excessive influence of English to our native language. However, it has been proven that most Europeans are fluent in two languages, that is their mother tongue and English, and neither language supersedes the other. This makes their countries more favorable for tourism and active in the international arena.

Why should Ukrainians start learning English now, without waiting for the end of the war?

Ukrainians must know English at least at a basic level. This factor should attract foreign investors to the restoration of Ukraine after the war. In addition, Ukraine will have a chance to develop tourism. Foreigners will have more opportunities and feel less alienated if the population understands English.

If Ukraine becomes bilingual in the future, it will contribute to its development as a state. Ukrainians need to start deepening their knowledge of the English language and make every effort to do so. After the end of the war in Ukraine, at least a basic knowledge of the English language will be required for employment almost everywhere.

So, it's high time to learn English in Ukraine!

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## **MUSICAL MOVEMENT GAMES IN THE TRAINING OF ATHLETES IN GYMNASTIC SPORTS**

**Objective.** In modern sports, the search for new training methods, especially for Ukrainian athletes in times of war, is crucial to make the preparation process more effective. Musical movement games offer the integration of physical exercises with emotional and creative aspects, which contribute to better movement mastery and the development of complex skills in athletes.

**Results.** Prolonged and intensive training can cause psychological strain, especially among young athletes. Musical movement games reduce stress and tension, making training more engaging, which helps maintain motivation and sustain a positive emotional state. Given that gymnastic sports require a high level of coordination, rhythm, and fluidity of movement, incorporating music into the training process enhances these qualities. Modern studies confirm that movements performed to music improve body control, which is critical in gymnastics. Properly organizing movements to music develops athletes' awareness of their physical activity, improves coordination and spatial thinking, and helps prevent injuries when performing complex elements. Using music during training also develops a sense of rhythm, which is key to executing gymnastic exercises. The musical rhythm helps athletes synchronize their movements and maintain the correct tempo during their routines.

Musical movement games performed in groups promote the development of team interaction and a sense of collective effort, which can be beneficial for athletes in synchronized disciplines such as group acrobatics, group routines in rhythmic gymnastics, and team performances in aerobic gymnastics. Games incorporating music stimulate the development of spatial orientation, which is crucial for the precise execution of acrobatic elements and combined routines. Music and movements to music help athletes enhance their concentration and ability to focus on specific motor tasks, which is critical in gymnastic disciplines.

Musical movement games serve as an effective tool for the harmonious development of both the physical and psychological qualities athletes need for the successful execution of gymnastic exercises. Through rhythmic games that emphasize the accuracy and fluidity of movements, athletes learn to better control their bodies, which helps reduce the risk of injury when performing complex elements.

**Conclusion.** The use of musical games in training can be adapted for athletes of various skill levels and age groups, as well as facilitate the integration of individuals with disabilities into the sports environment. Musical movement games not only diversify the training process but also significantly enhance the effectiveness of athlete preparation in gymnastic disciplines, which is particularly important in the modern context of sports development.

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## **THE IMPORTANCE OF IMPLEMENTING INCLUSIVE EDUCATION IN UKRAINE UNDER WAR CONDITIONS**

**Objective.** The objective of this paper is to substantiate the need for the implementation of inclusive education in Ukraine under wartime and post-war recovery conditions.

Special attention is given to the role of inclusive education in creating a safe and supportive educational environment for children affected by the war, particularly children with special educational needs. Inclusive education in such circumstances must ensure equal access to education for all children, regardless of their individual characteristics or life circumstances.

**Results.** The war has created significant challenges for Ukraine’s educational system. Frequently destroyed schools, the lack of safe learning environments, and the psychological trauma of students negatively affect the accessibility and quality of education. Children with disabilities, as well as children who have experienced physical or emotional trauma, require special learning conditions and support.

Research has shown that the implementation of inclusive education fosters higher levels of socialization for students with special educational needs, reduces discrimination, and promotes tolerance in society.

Furthermore, inclusion has a positive impact on educators, encouraging their continuous professional development. The main challenges faced by Ukraine in implementing inclusive education include insufficient teacher training, a lack of adequate material resources, and societal biases.

**Conclusions.** The introduction of inclusive education in Ukraine is a necessary step toward building an equitable and tolerant society. Inclusive education under war conditions should not only be an educational but also a social priority for the state.

Creating inclusive learning environments, providing psychological support, and adapting educational programs to meet the needs of children affected by the conflict are critically important tasks. It is also essential to provide teachers with the necessary resources and improve their qualifications to work with children who have experienced trauma and children with special educational needs.

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### **AUTHENTIC ENGLISH VIDEO MATERIALS FOR TEACHING ENGLISH IN PRIMARY SCHOOLS**

Today, teaching English in Ukrainian primary schools is very important. The **purpose** of our research is to provide effective and interactive learning for primary classes through real video content in English, to promote communication skills, to expand the stock, to value education, to use appropriate language methods and to encourage students to learn the language while immersing themselves in the real language and cultural environment of English-speaking countries.

**Results.** In order to modernise and reform the basic education system, teachers need to use different tools, methods and techniques to enable young students to learn English. The cultural authenticity of educational videos contributes to a more effective implementation of the two most important tasks facing primary school pupils: language learning and cultural learning. A variety of video materials will facilitate to learning English in primary school with language cliché, vocabulary. This makes it easy to complete statements about different living spaces and different genders, belong to different living areas, also create video content, etc. There is also a positive approach to the subject. When choosing authentic video content, consider the national characteristics of the country whose language is being studied. Attempts to establish a specific life situation for the mother tongue may not always be sufficiently taken into account by the reader or listener. This applies to situations where the author and the student of the video come from completely different cultures, social stereotypes and values. When choosing video materials, the school teachers should provide children with video materials that can elicit a true emotional, mental and linguistic response. The results of research shows that the authenticity of video readers is determined by specific criteria:

1. The video material should reflect the characteristics and culture of the country whose language the pupils are learning.
2. The video should contain interesting and exciting information.
3. Video material should be illustrated.
4. Video tasks should be authentic.

**Conclusion.** The use of authentic video materials in the teaching of English to primary school pupils contributes to improving the quality of language teaching, making it livelier and more interesting. Such materials not only help students to immerse themselves in real language contexts, but also develop their communicative skills, auditory perception and increase their vocabulary. In addition, video materials enrich students' cultural knowledge, increase their motivation and involvement in the learning process.

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### **PREPARATION OF ENERGY ENGINEERING STUDENTS FOR INTERCULTURAL COMMUNICATION**

International cooperation in the fields of energy efficiency, energy saving and renewable energy, operation of foreign equipment for the restoration of energy facilities, negotiations with foreign partners regarding investments in renewable energy sources, participation in international business projects and various conferences, etc. actualize the need for energy engineers to master a foreign language to ensure intercultural communication in the professional sphere. The paper *is aimed* to characterize the didactic possibilities of effective teaching methods and means for development of energy engineering students' intercultural communication skills.

The development of ability and readiness for intercultural communication of second-year master's students majoring specialty “Electricity, electrical engineering and electromechanics” at Sumy National Agrarian University (Sumy, Ukraine) is carried out in the process of study the course “Communications in the International Environment”. The specified educational component is an integral part of the formation of an international level specialist who can be an active participant in the intercultural business communication.

Studying the topics “Applying for a job. Resume”, “Successful interview”, “Meeting new colleagues”, “Teamwork”, “E-mail etiquette”, “Business meetings”, “Negotiations”, etc., students develop the ability to form the goal and task of professional communication with representatives of other cultures; organize discussions, manage communication; use etiquette means to achieve a communicative goal; conduct conversations, discussions, debates, negotiations; apply various tactics to implement the chosen strategy; analyze conflicts, crisis situations and resolve them, etc.

In order to achieve effective results in the formation of energy engineering students' readiness for intercultural business communication, instructors should apply:

- interactive teaching and learning forms (work in small groups, discussions, debates, etc.) and methods (business games, case study, project method);
- digital technologies (interpersonal interactive communication is implemented by using Zoom, Google Meet, Viber, WhatsApp, Telegram; application of Google Forms, Kahoot, or Quizizz to diagnose the results of educational activities; study of the peculiarities of the speech behavior of native speakers in the conditions of communication based on watching video plots by means of educational and informational sites).

Thus, organization and implementation of the proposed types of educational activity will contribute to the effective preparation of energy engineering students for intercultural business communication.



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### **NON-FORMAL ADULT EDUCATION: INNOVATIVE SOLUTIONS FOR POST-WAR SOCIETIES**

Our research is **aimed** on discussion of post-war renovation, educational needs and relevant social issues. Till nowadays civilians in Ukraine have suffering due to war: many people from southern and eastern regions have moved to western part of the country or even abroad, where they have got social, financial and psychological support together with the chance to find appropriate job. But modern jobs require from job seekers to operate even on basic level by digital skills. These categories of people are the most socially unprotected groups incorporated in new societies under patronage of municipal and regional services for providing of social protection and support.

The **results** of our research are solutions for current and future social needs and issues. Solution for urban areas can be model of the Third Age University, which was introduced by the Territorial Center for the Provision of Social Services of the Kievsky District of Kharkiv city and recognized as one of the promising areas for development of social adaptation services. In the methodological sense, the University of the Third Age provides for a harmonious combination of educational components, group psychological training sessions with elements of labour adaptation in the form of interesting master classes and a cognitive and local history element - excursions and lectures on the history and culture of the Kharkiv region.

Solutions for countryside. We create and develop in partnership with US and European partners short-term, non-degree thematic practice-oriented courses. Our "School of Applied Poultry Farming" provides offline and online classes, as well as field courses around different regions of Ukraine. Also, active calumnies of this school can get our support (consulting) and assistance in applying for grants to start business.

Solutions for renovation of supply chains and creating new remote work places for refugees and veterans. Social - educational project "Digital literacy for all" on base of Territorial centres as basic educational non-degree course to develop digital skills considering educational background and needs of different categories of learners. Obtained skills will be helpful for people who has faced with complicated life citation and should to adopt herself/himself to new wartime and post-war reality.

**Conclusions.** Target audience of non-formal adult education should be:

- socially unprotected community members (refugees and veterans, old lonely people and people with obtained due to war disability);
- members of territorial communities close to military conflict zone who willing to restore their economic and social resilience.

## **IMPLEMENTATION OF ICT TOOLS IN THE TRAINING PROCESS OF ARCHERS**

Archery, a timeless sport that requires precision, focus, and physical skill, has been practiced for centuries. It involves propelling arrows towards a target using a bow, demanding a delicate balance of strength, technique, and mental acuity. As with many sports, archery has evolved over time, incorporating modern technologies to enhance performance and training methodologies.

In today's competitive landscape, the integration of Information and Communication Technology (ICT) has become indispensable for athletes seeking to optimize their training and achieve peak performance. By leveraging advanced tools and techniques, archers can gain valuable insights into their technique, identify areas for improvement, and track their progress objectively.

ICT tools offer a promising solution to the limitations of traditional archery training. Using advanced technology, archers can benefit from quantitative data measurements on various aspects of archer performance, such as arrow placement, release time, and draw weight. This data can be analyzed to identify patterns, track progress, and provide objective feedback.

ICT tools can offer personalized feedback based on individual archer performance data which can help archers tailor their training to their specific needs and identify areas for improvement. Video analysis and motion capture systems can provide visual representations of an archer's form, allowing for a detailed examination of technique and identification of any flaws. By incorporating ICT tools into their training, archers can gain a deeper understanding of their performance, receive more targeted feedback, and ultimately enhance their overall shooting skills.

One of the most widely used ICT tools in archery training is video analysis. By capturing footage of an archer's shooting form using cameras, coaches and athletes can meticulously review and analyze every aspect of the shot. This allows for the identification of technical flaws, such as improper anchor point, release timing, or follow-through. By visualizing their form in detail, archers can gain a better understanding of their technique and make targeted adjustments to improve their performance.

Motion capture systems offer a more advanced level of analysis by using sensors to track an archer's body movements in real-time. These systems can provide precise measurements of biomechanical parameters, such as joint angles, muscle activation, and force production. This data can be used to optimize an archer's equipment setup. By understanding the biomechanics of their shooting form, archers can make informed decisions about their equipment choices.

The integration of ICT tools into archery training has the potential to revolutionize the sport. By providing objective data, personalized feedback, and visual analysis, these tools can significantly enhance performance and improve technique. As technology continues to advance, we can expect to see even more innovative applications in archery training. New tools and techniques may emerge, offering even greater benefits to archers of all levels.

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### **ENCOURAGING STUDENTS TO TAKE UP ARCHERY**

Encouraging students to take up archery can be a highly rewarding activity that develops not only physical skills but also mental discipline, focus, and patience. Archery, as both a sport and a recreational activity, teaches valuable life lessons and promotes holistic development.

First of all, archery improves upper body strength, coordination, balance, and posture. It's also a great way to promote overall fitness without being overly strenuous. Secondly, archery demands concentration and precision. Students learn to clear their minds, focus on the target, and control their breathing, which can be beneficial for their studies and stress management. Moreover, the process of becoming a good archer requires time, effort, and self-discipline. This can help students develop perseverance and determination, qualities that can be transferred to other areas of life.

It is possible to encourage students to practice archery by organizing after-school archery clubs or by offering archery as part of the physical education curriculum. This gives students an opportunity to regularly practice in a structured environment.

Partnering with local archery clubs or instructors for hosting special "Archery Days" where students can try archery under supervision, creating a fun and relaxed introduction to the sport. Such events can provide students with excellent experience.

Using interactive archery simulators can offer students a virtual introduction to the sport. These simulators provide instant feedback on technique and form, which is useful for beginners.

Showing inspirational videos of professional archers and highlighting famous athletes from archery (such as Olympic champions) can ignite students' interest and demonstrate the exciting possibilities of the sport.

Creating a school archery page or group on social media platforms where students can share their experiences, photos, and progress might foster community engagement and encourages participation.

By promoting the mental, physical, and emotional benefits of archery, schools can create an enriching extracurricular experience for students. Archery offers an opportunity for students to develop focus, patience, and physical skills, while also encouraging fun and camaraderie. With the right approach, archery can become a rewarding and popular activity for students of all ages.

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### **THE INTEGRATION OF ARTIFICIAL INTELLIGENCE (AI) INTO ENGLISH LANGUAGE TEACHING: ADVANTAGE OR CHALLENGE**

The integration of *Artificial Intelligence (AI)* into English language teaching offers a variety of advantages and challenges. *AI* tools are increasingly being used to enhance learning experiences, making language education more personalized, efficient, and accessible. However, there are also potential downsides to consider.

If we talk about advantages, then it is definitely 24/7 accessibility. *AI*-powered platforms are available around the clock, giving students the flexibility to learn at their own pace and on their own schedule. This is particularly useful for busy students or those in different time zones. Virtual assistants or chatbots can help students with grammar queries or vocabulary questions outside classroom hours, acting as a supplementary learning resource (Гуліч., & Четверик, 2024).

Many *AI* platforms use gamification techniques to make learning more engaging. Quizzes, challenges, and rewards can motivate students to practice English regularly. Moreover, virtual tutors, voice recognition software, and *AI* conversation bots (like ChatGPT) enable students to practice speaking and listening in a more interactive and less intimidating environment. *AI* tools can quickly assess writing, grammar exercises, or multiple-choice tests, saving teachers time and providing students with instant feedback. These tools can evaluate large volumes of student work more efficiently than traditional methods. *AI* systems can track student progress over time, providing teachers with valuable insights into strengths and weaknesses. This helps educators adjust their teaching strategies based on real data.

The main disadvantages of using *AI* in teaching English (from my point of view) are lack of human interaction and over-reliance on technology. While *AI* can simulate conversations, it lacks the emotional intelligence and cultural nuance that human teachers bring to language learning. Language is deeply tied to culture, and *AI* cannot fully replicate the social and cultural contexts that are essential for mastering a language. Relying heavily on *AI* tools may limit opportunities for students to practice real-time, face-to-face communication, which is crucial for developing speaking and listening skills in authentic situations. *AI* follows predefined algorithms and may not always encourage creative or critical thinking. While *AI* is excellent for structured language practice, it may not be as effective in fostering creative language use, such as storytelling or nuanced discussions. Students may become overly reliant on *AI* tools for corrections or answers, potentially diminishing their ability to self-correct or think independently when using the language.

Thus, the use of *AI* in teaching English offers numerous benefits, such as personalized learning, greater accessibility, and efficient assessments. However, it also presents challenges, including the risk of reduced human interaction, and over-reliance on technology. To maximize the potential of *AI*, it should be used as a supplement to, rather than a replacement for, traditional teaching methods. Combining *AI* with the guidance of skilled teachers can provide a balanced and effective language learning experience.

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### **DIGITAL RESOURCES TO OVERCOME CYBERBULLYING IN UKRAINE**

Cyberbullying is nowadays problem. The **purpose** is to understand the types of cyberbullying and show opportunities of using digital resources to overcome it in Ukraine.

**Results.** Understanding the concepts of cyberbullying turned out to be important. Let's find out the types of cyberbullying. Trolling (from troll). Trolling involves placing provocative messages on social networks aimed at attracting attention and stimulating activity. These actions often cause conflicts and discord among the participants of the discussion. Hating (from hate).

Hating includes negative comments and messages on social networks, as well as an unfounded critical reaction to a specific person or phenomenon. This is often accompanied by irrational criticism without giving reasons for one's position. Flaming (from flame). Flaming is characterized by an explosion of offensive lines and public emotional exchanges, which often occur in chats and comments on social networks. Due to the public nature of these conflicts, a large number of participants can spontaneously join one of the camps of the conflict. Often, one of the participants seeks to involve as many random witnesses as possible in the conflict.

Cyberstalking (from cyber talking). Cyberstalking uses electronic communications to stalk a victim through repeated threats. These actions cause anxiety and irritation, creating a feeling of constant surveillance.

Griefing (from grief). Griefing is the purposeful pursuit of other participants (players) in multiplayer online games. The goal of such players is not to win the game, but to spoil the enjoyment of the game for other participants. Sexting (from sext). Sexting involves sending or posting photos and videos of naked or half-naked participants. This phenomenon is gaining more and more popularity among teenagers, often without realizing the possible consequences.

It is recommended several useful digital resources that help to overcome cyberbullying in Ukraine.

[https://about.meta.com/uk\\_UA/actions/safety/topics/bullying-harassment/](https://about.meta.com/uk_UA/actions/safety/topics/bullying-harassment/) ;

<https://cyber.bullyingstop.org.ua/?fbclid=IwAR2xYGh2ezSd25p2eyzbyQ2XK0MG Rbd1OYC8HGyQFBS7s34treCc7V7B8sl#about-more> ;

[https://osvita.diia.gov.ua/courses/serial-dlya-batkiv-onlayn-bezpeka-ditey?fbclid=Iwar17hqfguz8yiv43yespnxzijej8o-nuhrwojcyosrc\\_uvykfb60if9saeo;](https://osvita.diia.gov.ua/courses/serial-dlya-batkiv-onlayn-bezpeka-ditey?fbclid=Iwar17hqfguz8yiv43yespnxzijej8o-nuhrwojcyosrc_uvykfb60if9saeo;)

**Conclusions.** To sum up, there are resources that help to overcome cyberbullying in Ukraine, everyone can use them and stop cyberbullying.

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### **THE ROLE OF EDUCATION IN POST-CONFLICT RECOVERY**

This thesis delves into the critical role of education as a powerful tool for rebuilding and healing societies that have endured the devastation of war. It highlights the unique challenges faced by students and teachers in these post-conflict environments, where the need to restore academic knowledge must be balanced with addressing the emotional and psychological scars that conflict leaves behind.

After the war, the landscape of education is often transformed, presenting immense challenges as communities strive to rebuild. The impact of conflict extends far beyond physical destruction; it disrupts the emotional and psychological well-being of both students and teachers. Teachers must embrace dual roles: not only as educators but also as trusted guides who provide emotional support, helping students navigate both their academic journeys and personal recoveries.

As we explore the aftermath of war, it becomes clear that education must evolve to reflect the changing societal landscape. The subjects we teach, particularly history and civics, take on new significance. Yet, there is a delicate balance to strike: we must teach the difficult truths of history while fostering unity and preventing the re-emergence of harmful ideologies.

Technology also emerges as a lifeline in post-war education. Digital tools and online resources can help bridge gaps where traditional schooling may no longer be available. However, we must be mindful of the uneven access to technology, particularly in impoverished or remote areas, as this can lead to new forms of educational inequality.

In conclusion, learning and teaching in a post-war world demand creativity and adaptability to meet the unique challenges of rebuilding. Education is not just about imparting knowledge; it is a vital pathway to recovery and a powerful instrument for preventing future conflicts. As we move forward, we need to embrace innovative approaches, prioritize emotional support, and redefine the role of teachers as not just educators, but as healers and nation-builders.

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### **GRAPHIC LITERATURE AND PASSION FOR READING – A POSSIBLE DIDACTIC POTENTIAL?**

The population in Norway, particularly children and young people, is reading less than before. According to Statistics Norway (2024), only 28 percent of individuals aged 9 to 15 read books on an average day in 2023, compared to 36 percent in 2015 (Statistics Norway, 2024). In addition, the PISA survey from 2022 shows a decline in the reading skills of Norwegian pupils (cf. Jensen et al., 2023).

The Norwegian government wants to reverse this development by increasing the reading skills of young people, highlighting passion and enjoyment of reading. They will do this with the strategy *Together about reading - The Reading Desire Strategy (2024-2030)* (Ministry of Culture and Equality & Ministry of Education and Research, 2024)

This project, which is a work in progress, explores the potential of graphic literature to foster a desire to read among secondary school pupils. The project is grounded in pilot testing of teaching with 120 pupils from secondary school. We created an exhibition with 22 graphic books, where the pupils worked more thoroughly with 12 of these books. The aim of the pilot teaching was twofold: We wanted to stimulate the pupils' curiosity about graphic literature and promote a desire to read.

In the presentation, we will discuss the didactic potential that graphic literature may have in contributing to the realization of a desire to read in secondary school. The reflections are discussed against current theory and documented findings from previous research.

The project's preliminary conclusions show that young readers are attracted to graphic literature. The project also shows that reading graphic literature requires both literacy and visual competence. The reader must navigate each double-page spread, see connections and relationships between the various forms of expression and find a reading path that is not necessarily given in advance (cf. Løvland, 2007; Warberg, 2018).

A key challenge in literary education is finding engaging texts that can captivate readers and foster a desire for reading, and therefore we find our project relevant for future teachers and current teacher educators.

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### **RECOMMENDATIONS FOR IMPROVING THE EFFECTIVENESS OF PSYCHOLOGICAL AND PEDAGOGICAL INTERACTION IN HISTORY LESSONS**

The **purpose** of these recommendations is to increase the effectiveness of psychological and pedagogical interaction between teachers and students in history lessons.

**Results.** This involves fostering positive communication, reducing conflict, creating a comfortable psychological climate, and enhancing students' cognitive activity. Particular attention is given to developing students' motivation, expanding opportunities for self-expression, and promoting critical thinking.

To improve the effectiveness of psychological and pedagogical interaction in history lessons, the following steps are recommended:

1. Actively use interactive teaching methods: Employ group work, discussions, debates, and role-playing games to engage students and develop their communication skills.
2. Develop teachers' empathy skills: This will enable teachers to better understand students' emotional states, maintain open communication, and reduce classroom anxiety.
3. Introduce reflection techniques: Regular discussions of learning achievements and emotional experiences during lessons will help students analyze their mistakes, cultivate critical thinking, and take responsibility for their own learning.
4. Apply an individual approach: Considering the individual psychological characteristics of students will foster more effective learning and personal development.

Implementation of these recommendations will result in:

1. Strengthening the emotional connection between teacher and students, helping to reduce stress and create an atmosphere of trust.
2. Increasing students' motivation to learn by encouraging active participation in discussions, research projects, and analysis of historical events.
3. Improving communication and interaction in the classroom, which will reduce conflicts and promote cooperation among participants in the learning process.
4. Enhancing students' academic achievements through better understanding of the material and development of critical thinking and analytical skills.

**Conclusion.** These measures will improve the quality of history teaching, enhance the classroom's communicative atmosphere, and contribute to students' emotional and intellectual development.



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**FROM THE PRINCIPLE OF «NATURE CONFORMITY» TO THE PRINCIPLE OF «LIVING IN HARMONY WITH NATURE» AS A NECESSITY OF THE PRESENT**

The research focuses on analysis of the historical, religious, and cultural factors that diminished the value of the principle of «living in harmony with nature» in the educational practices of past eras, favoring instead the principle of «nature conformity» as an anthropocentric model of education. This model viewed nature as a resource for meeting human needs, in contrast to the demands of the present. Current ecological challenges, such as climate change, biodiversity loss, and the depletion of natural resources, could not have been part of past theories due to the different social and economic conditions of the time. Therefore, most ideas concerning nature treated it as a tool for moral, intellectual, and aesthetic development rather than a resource requiring protection. However, the realities of today require aligning human activity with natural laws and processes, ensuring that our actions are compatible with ecological systems, according to the principle of «living in harmony with nature».

The principle of «living in harmony with nature» has developed over millennia in many cultures and philosophical systems. For instance, in Chinese Daoism, harmony with nature is the cornerstone of Laozi's teachings, in the Stoicism of ancient Greece, particularly in the ideas of Zeno and Chrysippus, and in Hinduism and Buddhism.

At the same time, the principle of «nature conformity» prevailed in the pedagogy of past eras for several reasons. On the one hand, religious influence on education. Despite their differences, religious currents focused on spiritual development, often prioritizing spiritual values over material ones, including the natural environment. Religious dogmas, almost until the end of the 18th century, determined the priority of spiritual growth, as a result of which nature was seen as something secondary. Nevertheless, since living according to natural laws is simultaneously living according to divine will, the principle of «nature conformity» found its place in the educational process.

On the other hand, there was the idea that humans are the center of the world, and nature exists to serve their needs. According to this idea, education focused on acquiring knowledge, technological skills, and scientific achievements that enabled the efficient use of natural resources to meet the needs of community. This approach marginalized the principle of «living in harmony with nature», although it did not deny the principle of «nature conformity», but limited it to the framework of practical human benefit rather than ecosystem preservation. This approach dominated until the end of the 19th century. Only in the 20th century, when anthropocentrism reached its peak through the intensive use of resources on an industrial scale, did education rekindle an interest in the principle of «living in harmony with nature», but now for the sake of sustainable development.

Thus, education in the past focused on developing a «utilitarian» approach to nature, leaving a deep imprint on today's educational practices. There are grounds to believe that this is one of the main reasons for our anthropogenic impact on nature, as we primarily view it as a resource, neglecting ecological responsibility and biocentrism.

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### **INTEGRATION OF TRAUMA-INFORMED TEACHING PRACTICES IN POST-WAR UKRAINIAN LANGUAGE AND LITERATURE CLASSES**

In the post-war period, the educational system will play an important role in supporting the psychological and emotional recovery of students. For Ukrainian language and literature teachers, this process will bring unique challenges and opportunities. Literature, as a reflection of human experience, can serve as a powerful tool for healing trauma, fostering resilience, and restoring a sense of national identity.

However, to effectively teach in this post-war context, educators must adopt trauma-informed teaching practices that prioritize students' emotional well-being alongside academic growth.

The first priority is creating a safe classroom environment. Ukrainian language and literature lessons offer students the opportunity to explore their feelings through stories, poetry, and personal expression. However, many students return to school carrying the burden of loss, displacement, and fear. Teachers must be aware of these emotional states and be prepared to respond delicately.

Incorporating texts that address themes of resilience and hope is also crucial. Ukrainian literature is rich with works that reflect the historical struggle for independence and the human capacity to endure hardship. Introducing students to both classical and contemporary Ukrainian writers who have written about conflict and recovery can help them connect their personal experiences to a broader national and historical narrative.

These stories can serve as a bridge between personal trauma and collective healing. Group activities that emphasize collaboration and support can help students rebuild social connections, which are often disrupted by the chaos of war. Additionally, literature lessons can provide opportunities for creative expression, allowing students to process their feelings through writing, poetry, or theater.

Teachers must also be mindful of potential triggers that certain texts or discussions may provoke. Some works of literature might evoke painful memories of the war, and students may react with anxiety or withdrawal. Educators should be ready to offer support, whether through one-on-one conversations or referrals to counselors.

In conclusion, integrating trauma-informed teaching practices in Ukrainian language and literature classes is essential for addressing the needs of students in the post-war era. By creating a supportive environment, selecting meaningful texts, and adapting teaching methods to students' emotional states, educators can help students heal, grow, and reconnect with their cultural heritage.

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## **FEATURES OF THE ORGANIZATION OF SPORTS RECREATIONAL ACTIVITIES IN PHYSICAL EDUCATION**

**Objective.** Recreational sports activities are of great importance in the system of physical education, as they contribute to active rest, relieve physical and mental stress, as well as general health promotion.

**Results.** The main means of animation in physical education are: sports games (organizing and conducting various types of sports games (football, basketball, volleyball, table tennis, etc.); classes in various types of health fitness (organizing and conducting fitness classes, aerobics, yoga or pilates, participating in mass flash mobs, demonstration sports mass performances aimed at improving physical shape, strengthening muscles and improving flexibility); excursions and tourist trips (organization of excursions and tourist trips to nature, parks or historical places in order to actively relax and learn new things); water sports (involving students in swimming lessons, to improve coordination of movements and general physical shape); play activities and entertainment (organizing and conducting outdoor games, competitions and fun activities that contribute to the development of teamwork, cooperation and social skills); relaxation and recovery practices (the use of relaxation techniques, meditation and breathing exercises to reduce stress, improve mental state and increase emotional well-being).

Organizing special events such as animation tournaments, competitions and contests where students can demonstrate their physical abilities and interact with each other in a fun and exciting atmosphere requires careful planning and consideration of a variety of factors. Based on the interests and needs of students, as well as their age and physical capabilities, the goal is determined and the program of the event is drawn up. A careful approach requires the selection of suitable places for recreational activities, such as sports grounds, parks or recreation centers, equipment and recreational materials.

It is necessary to develop a schedule of events and an action plan that includes various types of activities, such as sports games, physical exercises, tournaments, excursions, etc.

Providing an atmosphere of cooperation and mutual understanding, involving students in the process of planning and organizing animation events, taking into account their suggestions and wishes will increase the creative activity of participants, promote teamwork and create a positive emotional background of events.

**Conclusion.** The organization of recreational competitions and events has its own unique features that contribute to their effectiveness and attractiveness for participants. But the organization of recreational competitions and events requires an integrated approach that takes into account the physical, mental and social needs of the participants, contributes to their comprehensive development and the formation of a healthy lifestyle.

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**KEY STRUCTURAL COMPONENTS OF FUTURE PHYSICAL EDUCATION  
TEACHERS' PREPAREDNESS FOR ANIMATION SPORTS ACTIVITIES IN  
SECONDARY GENERAL EDUCATION INSTITUTIONS.**

**Objective.** In the face of modern challenges such as the pandemic, war, and the growing role of digital technologies, animation sports activities are gaining new significance.

Future physical education teachers should be prepared for the successful implementation of animation sports activities, which play a significant role in physical development, strengthening social connections, and improving students' psycho-emotional well-being.

**Results.** The preparation of future physical education teachers for conducting animation sports activities in general secondary education institutions involves the integration of theoretical knowledge, practical skills, and personal qualities.

This combination contributes to the successful organization of animation events, the development of students' physical and social abilities, and the formation of a positive attitude towards a healthy lifestyle.

Key structural components of future physical education teachers' preparedness for animation sports activities include:

- motivational-intentional component: this component defines the future teacher's readiness for animation sports activities through their intrinsic motivation and goal orientation. The teacher must recognize the importance of animation events for the development of students' physical, social, and emotional skills. A well-formed motivation fosters active engagement in activities, the development of leadership qualities, and initiative, which positively influence the success of animation programs;
- theoretical-practical component: this component encompasses the knowledge and skills that the teacher acquires during their training. It includes theoretical knowledge in physical culture, pedagogy, and psychology, as well as practical skills in organizing and conducting animation sports events. The teacher should be able to apply modern scientific approaches, adapt programs to the individual characteristics of students, and ensure quality education within the framework of animation activities;
- creative-personal component: this component involves the development of creativity and personal qualities in the teacher, which are essential for the successful conduct of animation events. The teacher must be capable of generating new ideas, designing engaging programs and scenarios for events while considering students' interests and preferences. Creativity helps create a positive atmosphere during animation sports activities and encourages children to adopt an active and healthy lifestyle.

These components form a comprehensive foundation for future physical education teachers' preparedness for effective animation sports activities in secondary general education institutions. The importance of each of them

cannot be overstated, as they interact and complement one another, creating a holistic approach to teacher preparation.

**Conclusion.** The structural components of future physical education teachers' readiness for animation sports activities, which include the motivational-intentional, theoretical-practical, and creative-personal components, form a unified system of professional training.

Each of these elements plays a key role in enhancing the effectiveness of animation work by fostering the development of both professional knowledge and skills, as well as personal qualities of teachers. This integration helps create conditions for successful professional activity, ensuring students' physical, social, and emotional development.

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### **THE USE OF COMPUTER PROGRAMS FOR STUDYING ENGLISH LANGUAGE BY CADETS OF HIGHER MILITARY EDUCATIONAL INSTITUTIONS**

Teaching of modern specialists requires high-quality educational services. Information and communication technologies (ICT) play a leading role in obtaining, storing and processing information in present-day conditions. The need to study languages is the basis for the formation of a comprehensively developed personality. The use of computer technologies in language teaching is becoming increasingly popular at different stages of language acquisition. This explains the relevance of issues related to the specifics of using ICT in the process of language learning.

One of the directions for using ICT in the field of education is multimedia technologies. Researchers define multimedia technologies in a broad sense as a range of information technologies that use various software and technical means in order to have the most effective impact on the user. The range of multimedia technologies includes animated graphics, video films, sound, interactive capabilities, use of remote access and external resources, working with databases, etc. It should be noted that multimedia tools must comply with the system of psychological, didactic, and methodological requirements.

Educational computer programs are one of the aspects of using multimedia technologies in the educational process. These include: software and methodological complexes, electronic training courses and electronic manuals, electronic atlases, knowledge bases and encyclopedias, training program complexes, etc., which are united by the fact that they are all means of direct use in the educational process. This list is constantly being expanded and updated. Researchers note that “today, the main areas of computer technology application in foreign language classes are the use of multimedia capabilities in computer classes and the educational resources of the Internet”. There is a direction towards the use of computers in language learning CALL (Computer-Assisted Language Learning). In addition to the function of broadcasting information, computers are used as a means of creating interactivity, to give teaching a natural flow, as a global means of communication and an unlimited source of authentic materials, etc. Multimedia teaching tools are universal, as they can be used at different stages of the lesson: for motivation as a problem statement before learning new material, for explaining new material as an illustration, for consolidating and summarizing knowledge, for knowledge control. The use of ICT in the educational process should correspond to the didactic functions at each stage of the lesson. For the independent work of cadets, educational software is also widely offered.

The use of the latest information technologies in the process of studying foreign languages increases the effectiveness of the formation of all aspects of communicative competence. These technologies are used at different stages of the formation of language and speech competence in accordance with the didactic functions at each stage of the lesson.

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**THE IMPORTANCE OF DEVELOPING FOREIGN LANGUAGE COMPETENCE  
FOR IMPROVING THE PROFESSIONAL SKILLS  
OF FUTURE TECHNOLOGY TEACHERS**

Nowadays, communicative competence in foreign languages is one of the main components of the professional competence of future teachers. Therefore, *the aim* of our research is to define the importance of foreign language learning for future technology teachers.

*Results.* The communicative competence in a foreign language allows the students of higher education to study foreign educational and scientific sources, reference books and professional information, to conduct business correspondence, to work effectively with a computer, to find the necessary information on the Internet, in libraries of foreign universities, in databases of scientific works, to communicate with colleagues from abroad, to acquire new knowledge thanks to the knowledge of a foreign language.

The analysis of scientific sources and the characteristics of the professional field of a specialist allows us to distinguish the main functions of foreign language competence that can contribute to this process. The communicative function aims at mastering oral and written communication in a foreign language. The ability to use the language of study (e.g., English), i.e. to communicate at a high level in order to communicate effectively with students and colleagues. The methodological function contributes to the planning and preparation of lessons. The ability to develop effective lessons using appropriate methods and resources, using a foreign language, the ability to adapt materials for different levels of students and contexts will enhance the professional activity of technology teachers. Intercultural competence helps in understanding cultural differences, awareness of cultural characteristics of different countries and contexts that may affect professional learning and communication.

The technological function involves the use of technology in the educational process. The ability to effectively use modern technology to enhance learning and communication with students is a necessary skill in today's world, as teachers in Ukraine now work mostly remotely. The professional role provides opportunities for the professional development of future teachers. The readiness for continuous professional development and improvement of one's own professional skills as a teacher of technology in a foreign language is aimed at participation in international projects, programmes and exchanges, which allows one to broaden one's professional horizons and gain new ideas about professional growth.

*Results.* These functions of foreign language competence can help future technology teachers to develop their own professional competence and become more effective teachers in today's global world.

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### **INTERDISCIPLINARY APPROACH TO THE DEVELOPMENT OF DIGITAL SKILLS IN MODERN EDUCATION: SOCIAL AND CULTURAL ASPECTS**

**Purpose.** The integration of digital skills in education is essential for navigating the modern world. However, a purely technical focus is insufficient. An interdisciplinary approach, combining computer science with social sciences, provides a more holistic way to develop digital competencies aligned with societal needs. The purpose is to justify the interdisciplinary approach to developing digital skills in education, addressing social and cultural aspects.

#### **Results.**

- **Technical Skills in Social Context.** Combining digital technologies with social sciences helps students understand ethical issues like data privacy, cybersecurity, and the broader societal impacts of technology.
- **Critical Thinking.** Merging digital education with disciplines like sociology fosters critical thinking. Students learn to assess information for its technical accuracy and societal implications, enhancing their digital literacy.
- **Social Responsibility.** Students become more aware of the societal consequences of technology, including social inequality and the responsible use of digital resources.
- **Intercultural Competence.** Integrating cultural studies equips students to collaborate effectively across cultures, an essential skill in today’s globalized digital environment.
- **Creativity and Innovation.** Blending technical and social perspectives encourages innovative thinking, enabling students to find creative solutions to modern challenges.

**Conclusions.** An interdisciplinary approach develops not only technical skills, but also critical thinking, social responsibility and intercultural competence. This ensures that students are prepared for the social and cultural complexities of the digital age.



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**THE USE OF THE POTENTIAL OF FOLK SONG ART IN THE FORMATION OF  
NATIONAL IDENTITY OF THE STUDENT YOUTH OF  
THE PEOPLE'S REPUBLIC OF CHINA**

**Purpose:** to analyse the significance of Chinese folk music for the formation of the national identity of Chinese students.

**Results.** In the scientific and pedagogical space of the People's Republic of China, music is considered a reflection of the aesthetic worldview of the people, a valuable heritage of culture and national achievements in the field of spirituality. Traditional Chinese music, which has developed and enriched over a long history, is a treasury of unique national creativity, an embodiment of the folk spirit, and a reflection of the high ideals of the Chinese nation.

As it was found out, Chinese scientists believe that Chinese traditional music as a unique historical and cultural phenomenon, the embodiment of deep philosophical and worldview ideals of the people, a vivid expression of artistic creativity has all the grounds for successful use in the educational process, can act as a powerful tool for better awareness and understanding of one's own history, cultural and spiritual traditions by the younger generation.

Traditionally, musical art was considered an effective means of personality education, formation of aesthetic values and ideals, development of moral feelings and qualities. With the development of the musical education system, the society's awareness of its importance and the confirmation of its high status at the official level (massive, mandatory, systematic, etc.), a special role for the education of national-patriotic qualities and values of young people is assigned to the art of music.

A special place in the formation of the national self-awareness of young people in musical art classes is occupied by works of a patriotic direction, which are able to actualize and develop feelings of national pride, love for one's country and people, and the desire to work for its happy future. Chinese scholars note that the subject matter of national-patriotic musical works can be quite broad, including works praising the national symbols of the state; the beauty of the native region, the city; the sophistication of the native language; events of the heroic past of the Chinese people; charm of national nature; love for parents, friends; greatness of work; glorification of national heroes, etc.

**Conclusions.** Thus, musical art, which appeals to the emotional and sensual sphere of a person, improves the ability to perceive and feel beauty, has a significant educational potential. Of particular importance are the possibilities of using the means of national musical art. Samples of national folk art, which are filled with historical and cultural content, reflect the high spiritual and moral ideals of the people, allow us to more fully comprehend certain historical events, peculiarities of national household culture, and feel the beauty and artistic value of our native language.

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## **IMPACT OF PROFESSIONAL BURNOUT ON TEACHING FOREIGN LANGUAGES IN UKRAINE**

According to the International Classification of Diseases (ICD-11), burnout is a syndrome caused by chronic stress in the workplace (Occupational Burnout is a Phenomenon, not a Disease, 2019). It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy.

The **aim** of this paper is to outline the potential factors that increase the development of professional burnout among university professionals and the ways of improving the socio-emotional state of HE professionals.

**Results.** “Professional burnout” is understood as a result of occupational stress (influence of a complex of stressors, long-term influence of occupational stressors, uncontrolled occupational stress, etc.) (Cooper et al., 2007).

Professional burnout is a widely recognized issue in higher education. The fast pace of life, the ongoing war in Ukraine, and the current socio-economic changes in the country have introduced new, more demanding challenges for educators. These factors impact their psychological well-being, leading to emotional stress, fatigue, emotional exhaustion, feelings of inadequate social support, and persistent dissatisfaction with their profession.

The signs of burnout include: frequent insomnia and restless sleep; trembling in parts of the body, or the entire body; a general sense of feeling unwell without specific symptoms; a constant urge to take breaks or escape unpleasant professional experiences by any means; persistent indifference to new theories, ideas, alternative approaches, or innovations in work; loss of a sense of humor.

**Conclusion.** Researchers suggest that the most effective way to address burnout is through prevention. This can be achieved by ensuring favorable working conditions for teachers, equipping them with stress management strategies, and fostering the development of emotional intelligence.

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### **RESTORING IDENTITY THROUGH LANGUAGE AND LITERATURE**

Studying language and literature post-war aims to revive awareness and uphold cultural identity in students by reconnecting them with their roots and heritage after the devastation of war, which impacts not only material possessions but also leaves emotional wounds that necessitate a return to cultural origins. This process helps rediscover strength and belonging within the community through the channels of literature and language, which convey essential national values and traditions.

Studying literature helps students grasp moments in Ukraine's history better, particularly those linked to the fight for independence and human dignity. It delves into war narratives and acts of heroism that not only prompt a reassessment of the past but also cultivate a shared sense of national identity and pride. Exploring traditions also aids in safeguarding and celebrating the language as a crucial aspect of national heritage, especially following times when its existence may have been at risk.

Studying works that portray war and its aftermath enables students to explore their history and enhance their critical thinking skills on a deeper level. It helps them reflect on events and make connections to present-day issues like globalization and the importance of upholding values amidst rapid changes. Teachers of literature and language play a role in guiding students through this journey of self-reflection and societal awareness by bridging the gap between the past and the future.

The knowledge of national literature provides students with the opportunity to get acquainted with their country's history, to become proud of its achievements, and to recognize the tragic moments which help one feel part of their people. Quite often, the literary analyses enable development in students' ability to comprehend historical events as well as present-day challenges, allowing them to become an active conscious participant in social life.

After all, Ukrainian language and literature studies in the post-war period not only restore national consciousness and cultural identity but also allow young people to develop a strong sense of patriotism. Teaching these subjects gives necessary understanding to students of the importance of preserving their language, culture, and history as part of their personal and collective future.

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**THE INFLUENCE OF STRETCHING EXERCISES ON THE HEALTH, ACTIVITY  
AND MOOD OF FEMALE ATHLETES ENGAGED IN AEROBICS**

The purpose of the study is to investigate the effect of stretching means on the health, activity and mood of female athletes specializing in sports aerobics at the stage of basic training in the post-training period.

Results. Every year there is a constant increase in requirements for training of female athletes in sports aerobics. Already in the groups of basic training girls have to perform a large volume of complex elements that require a significant level of development of physical abilities and functional fitness. The time allotted for training is also constantly increasing. All of this can cause a decrease in the activity of young athletes and a deterioration in their health and mood, as well as a decrease in motivation to train.

In our opinion, stretching exercises can improve the recovery of athletes after training and competition loads. Stretching is a system of exercises aimed at stretching muscles, ligaments and tendons, traditionally used to develop flexibility in sports or for health or rehabilitation purposes. However, in addition to improving flexibility, stretching exercises can have a high recovery potential. This was proved in our work by developing a special set of stretching exercises consisting of 10 exercises used at the end of a sports aerobics training session at the stage of basic training. The study proved the positive influence of stretching exercises used after training on the well-being, activity and mood of female athletes of basic training groups in sports aerobics. Especially stretching exercises contributed to the improvement of mood, which was proved by the methods of mathematical statistics (Table 1).

**Table 1.** *Indicators of well-being, activity and mood of the subjects before and after training with the use of stretching for recovery*

<b>Indicators</b>	<b>Start of training</b>	<b>After training</b>	<b>t<sub>p</sub></b>	<b>P</b>
<b>With the use of stretching</b>				
Well-being, points	43,5 ± 4,01	50,4 ± 2,65	t <sub>p</sub> = 1,4	p>0,05
Activity, points	45,4 ± 4,46	43,0 ± 3,02	t <sub>p</sub> = 0,4	p>0,05
Mood, points	44,1 ± 3,48	53,6 ± 2,23	t <sub>p</sub> = 2,3	p<0,05
<b>Without using stretching</b>				
Well-being, points	41,6 ± 4,99	40,7 ± 3,63	t <sub>p</sub> = 0,1	p>0,05
Activity, points	41,8 ± 4,79	37,4 ± 3,10	t <sub>p</sub> = 0,8	p>0,05
Mood, points	46,0 ± 3,96	43,8 ± 3,21	t <sub>p</sub> = 0,4	p>0,05

**Conclusions.** Stretching can be an effective factor of recovery and have a positive effect on the well-being, activity and mood of athletes in sports aerobics. Stretching exercises have the most positive, statistically significant effect on mood.

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## **DIGITAL LEARNING TECHNOLOGIES AND PREDICTIVE ALGORITHMS IN MODERN COACH ACTIVITIES**

Digital and machine learning and predictive algorithms, we guess, are alternative ways of thinking and knowing. Especially, in online teaching and learning. We can consider them using in sport.

The **purpose** is to analyze some data and predict various aspects of sport activities in machine learning and predictive algorithms.

**Results.** Let's consider some points.

1. Analysis of training and performance data of athletes: using machine learning to analyze athletes' training data, such as heart rate, speed, training time, etc. Algorithms can identify patterns and correlations between training parameters and performance, helping coaches to optimize training programmes.
2. Predicting competition Results. machine learning can develop models to predict the outcome of sports competitions. It can include analyzing historical data on the performance of teams or athletes, assessing their form and determining the probability of winning a particular match or competition.
3. Optimizing strategies and tactics: predictive algorithms can help coaches select the best strategies and tactics for specific game situations. In basketball, for example, it can include analyzing the best times to substitute players or choosing defensive tactics in certain situations.
4. Injury prevention and risk management: analyzing injury and risk data in sport is another important aspect of using machine learning. Models can predict injury risks based on athletes' injury history and other factors; it allows the development of strategies to prevent them.

We can come to the **conclusion** that machine learning and forecasting algorithms are used in sports to assist coaches and athletes in making informed decisions, optimizing training programs and game strategies, and reducing the risk of injuries and unforeseen events.

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### **PLYOMETRICS FOR VOLLEYBALL: JUMP HIGHER, PLAY BETTER**

Plyometric training is an essential part of volleyball training, ensuring the development of key physical attributes that have a direct impact on the success of the most important technical and tactical elements of the game.

Plyometric exercises have an active influence on the development of explosive power, which is important for the execution of high jumps and fast returns. In volleyball, this has a direct impact on the quality of power serves, jumping, attacking and blocking.

Regular plyometric training significantly improves a volleyball player's ability to jump high and powerfully, which is essential for effective play over the net. Drills such as deep jumps and jumps with a push-off in place help to increase vertical jump height.

Plyometric drills help develop the ability to contract and relax muscles quickly (the stretch-contraction cycle), which increases players' reaction time. This allows volleyball players to change position more quickly, which is important when playing defence and transitioning from receiving to attacking.

Through dynamic loading, plyometric exercises strengthen the lower limb muscles and tendons, reducing the risk of injury and improving the overall stability of the knee and ankle joints, which are most stressed during jumping.

Plyometric training improves coordination between the nervous and muscular systems, allowing volleyball players to achieve high speed and accuracy during jumps. This is particularly useful for the fast and powerful movements in volleyball, where it is not only necessary to jump high, but also to perform a technical and tactical action in a timely and accurate manner.

As plyometric exercises are often performed as part of interval training, they help to develop the overall endurance of volleyball players. This enables them to maintain the necessary height and strength in their jumps and movements, even at the end of the match, when the muscles have already been subjected to considerable stress.

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## **METHODOLOGICAL RECOMMENDATIONS FOR USING THE TEAMS DIGITAL PLATFORM FOR PROFESSIONAL TRAINING OF QUALIFIED WORKERS IN THE MACHINE-BUILDING INDUSTRY**

**Purpose.** To ensure the effective organization of professional training for qualified workers in the machine-building industry by integrating the Microsoft Teams (TEAMS) digital platform, which enables remote learning and fosters interactive collaboration among participants in the educational process.

Key Objectives:

1. Integration of modern information and communication technologies into the training process for qualified workers.
2. Development of educational courses based on TEAMS, including virtual labs, simulators, and interactive materials.
3. Implementation of personalized learning trajectories to adapt the educational process to the individual needs of learners.
4. Enhancing the effectiveness of knowledge control and assessment of learning outcomes through digital tools available on the platform.

### **Advantages of Using TEAMS:**

Access to interactive learning materials and tests in real time.

Ability to conduct virtual practical sessions through simulators and labs.

Collaborative work on projects and tasks in an online environment.

Flexibility in managing the educational process through personalized learning trajectories.

### **Application in the Educational Process:**

Traditional teaching methods are supplemented by the capabilities of the digital platform.

Knowledge control is carried out through digital tests and other forms of assessment within TEAMS.

Opportunities for continuous professional development, including self-paced learning of new skills.

**Conclusion.** The use of Microsoft Teams in the professional training of workers in the machine-building industry enhances the effectiveness of the educational process, provides modern tools for remote learning, and allows for individualized learning paths tailored to the needs of students.

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**«PEDAGOGY OF RECOVERY: CREATING AN EDUCATIONAL ECOSYSTEM  
FOR THE FORMATION OF FUTURE LEADERS IN A POST-CONFLICT SOCIETY**

After conflicts, especially military ones, society faces numerous challenges that require comprehensive recovery. This concerns not only material aspects but also the social, psychological, and cultural spheres of life. In such conditions, education plays a fundamental role in the restoration and building of a new, sustainable system of social relations.

Educational institutions can become sources of change and new opportunities if they are properly organized and transformed into ecosystems where future leaders capable of building a prosperous society are nurtured.

Post-conflict societies face numerous challenges, among which it is important to highlight:

Physical and psychological recovery of children and youth. Psychological trauma, loss of family connections, depression, and other consequences of war or conflict require special attention in the educational process.

Reintegration of students into society. Many children and young people after the conflict may be internally displaced persons or residents of destroyed regions. They often face social isolation or alienation, making education an important platform for their return to normal life.

Pedagogy of recovery is an approach to education that focuses on creating conditions for the recovery, development, and prosperity of children and youth in a post-conflict environment.

An educational ecosystem is a complex of interconnected elements that ensure the effective functioning of education as a social institution. For a post-conflict society, such an ecosystem should include several key components:

In a post-conflict environment, schools and universities should become not only places for acquiring knowledge but also centers of social reintegration. This involves creating a comfortable, inclusive environment where all students – regardless of their social or economic status – have equal access to education.

An important element of the educational ecosystem is the training of teachers who can work with children affected by conflicts. Teachers must possess skills in providing psychological support, understanding the needs of children, and creating a positive environment for their development. Regular professional development, emotional intelligence training, and support from psychologists are crucial components of this support.

Post-war education must use new technologies to ensure access to knowledge and integrate various methodologies. For example, distance learning can become an indispensable tool for students who cannot attend school due to physical or social constraints. It is also important to introduce STEM education (science, technology, engineering, mathematics), which will contribute to the development of technical skills and prepare young people for modern professions.



The pedagogy of recovery involves the implementation of psychological assistance programs for students who have experienced traumatic experiences. Establishing school psychological services, support groups, and close collaboration with parents and community organizations are essential for the successful rehabilitation of children and adolescents.

Educational institutions should be integrated into the life of local communities. This can include joint projects for infrastructure reconstruction, organizing volunteer events, supporting youth initiatives, and developing civil society. Such cooperation will promote deeper integration of students into society and prepare them for active participation in the country's recovery.

Pedagogy of recovery is a new approach to education that helps shape resilient societies after conflicts. Creating an educational ecosystem that combines innovation, social support, and leadership development is the foundation for recovery and prosperity in a post-conflict environment.

Education should become the platform where the younger generation can find answers to modern challenges, develop their talents, and take responsibility for the restoration and development of society.

**MUSIC AND SONGS USAGE AT ENGLISH TEXTBOOKS  
FOR YOUNG LEARNERS IN CHINA**

Teaching English for young learners in China becomes significantly effective when creating an artificial English-speaking environment through the use of music and songs. Using English songs is relatively simple; they are mainly introduced at the beginning of a lesson or at the end. The **purpose** is to show the examples of use music and songs from English textbooks for young learners in China.

**Results.** The diverse use of English songs can maintain young learners' interest in learning and their enthusiasm for learning English, as well as reduce tension and anxiety in class. Feeling the melody of English songs has a positive effect on the improvement of listening skills, develop speaking, and reading, it contributes to young learners' the success in learning English, figure 1.



Figure 1. The examples of use music and songs from the English textbook for young learners, 6 th grade, FLTRPC

Also, English teachers in China can you the digital resources: English teacher network [https://www.ewteacher.com/search\\_all.php?t=8460](https://www.ewteacher.com/search_all.php?t=8460); Cool Dog music playlist [https://www.kugou.com/songlist/gcid\\_3zv8vrtvz5z0bb/](https://www.kugou.com/songlist/gcid_3zv8vrtvz5z0bb/); QQ music track list <https://y.qq.com/n/ryqq/playlist/7461724680>; QQ Music official address <https://y.qq.com/>; NetEase cloud music official address <https://music.163.com/>.

**Conclusion** is the youngest learners express a positive attitude to English songs, their love to the English language is growing. I believe that English songs help in learning English, including the accumulation of words and lexical-grammatical sentence patterns, improving pronunciation, intonation, stress, understanding English-speaking culture, different holidays and traditions.

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**PERSONALIZED-HOLISTIC SUPPORT FOR STAKEHOLDERS IN EDUCATION:  
POST-WAR MEASURES THAT WORK**

This study aims to explore the strategies and frameworks needed to address the complex challenges facing K-12 students, teachers, and parents in Lebanon following the current war. In light of the widespread impacts on mental health, well-being, and academic continuity, this research seeks to explore and identify recovery measures to rebuild resilience, bridge learning gaps, and foster an environment that prioritizes mental and emotional recovery alongside academic growth.

Using a qualitative approach, the study gathered insights from teachers, principals, and parents through semi-structured interviews and focus groups. Participants were selected from a diverse array of educational backgrounds to ensure the representation of various affected groups. Thematic analysis was used to classify results into categories that address the unique challenges and support needs of students, teachers, and parents.

Findings from the data underscore the varied yet interconnected needs of students, teachers or educators, and parents. Each group requires distinct types of support for emotional and academic recovery. Concerning students, the impact of war on students is profound, affecting their emotional well-being, social skills, and academic progress. Key areas of support include Peer-to-Peer Support Groups, Social-Emotional Learning (SEL) Programs, Remedial Programs, Therapeutic Play and Activities, and AI for identifying and bridging learning gaps. As for teachers, suggested support mechanisms include Professional Learning Communities (PLCs), Psychological Counseling and Workshops, and Administrative Support. Parents require guidance to support their children's recovery while managing their own well-being. Suggested interventions include Community Support Groups, Counseling Services, and Workshops on Supporting Children at Home.

Many recovery measures should be implemented after the war in order to address the huge challenges imposed by the war. Such a plan should address the diversity of the educators based on the impact of the war on each one of them. Some educators and students may have lost their homes, some might be suffering from the loss of a close relative, and others might be suffering from mental issues or stress due to the war.

So, the recovery measures should be differentiated to accommodate the various profiles of the affected stakeholders. The recovery measures should also be multidimensional to include educational as well as psychosocial support. A one-size fits all model won't work in post-war situation. Support should be personalized and holistic. Students, teachers, staff, and parents shouldn't be treated as categories or counted by numbers; each and every one is a person that needs careful consideration in terms of well-being. Interventions should cater for equity rather than equality. The quality or the output of the recovery measures is much more important than the quantity or the numbers of the stakeholders who are going to benefit from these measures.

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## **PSYCHOLINGUISTIC ASPECTS OF THE INFLUENCE OF ADVERTISING TEXTS ON THE PERSONALITY**

At the present stage of society's development, the phenomenon of mass information is gaining special significance. As the saying goes, “Whoever has information controls the situation.” Information is defined as data or messages transmitted orally, in writing, or through any other means. Given that communication serves as a way of aligning goals and interests, information is that which conveys something important, new, relevant, and meaningful. Moreover, the recipient’s ability to perceive and decode the message depends on their competence, life experience, value orientations, and general culture. Advertising, as a form of mass persuasion, is an effective medium for transmitting information. According to researchers, advertising has become an integral part of modern society, acting as a decisive factor in competition and a subtle instrument of the market.

Advertising texts influence the consciousness and behavior of individuals through various psychological and linguistic mechanisms. Psycholinguistics provides a deeper understanding of how advertising messages are perceived and processed, and how they influence consumer decision-making. The main psycholinguistic aspects of advertising's impact on individuals include persuasive language strategies that employ techniques such as positive associations, keyword repetition, and emotional triggers. Studies show that the emotional impact of a text is often more effective than logical arguments.

The use of metaphors, analogies, and vivid imagery in advertising helps create emotional connections with the audience, allowing advertising messages to penetrate deeper into the audience’s consciousness. Advertising texts often exploit the ambivalence and ambiguity of words to manipulate perception and evoke the desired reaction from consumers.

The activation of certain cognitive schemas under the influence of advertising messages can subconsciously shape an individual’s choices and behavior. This phenomenon is supported by numerous studies in the field of cognitive psychology.

Advertising messages also influence consumers through cultural, social, and value-based contexts, often using elements of identity and belonging to a particular group.

In conclusion, advertising texts are a powerful tool for influencing consciousness through linguistic and psychological methods. To maximize the effectiveness of advertising, it is important to consider the psychological characteristics of the target audience and apply effective language strategies.

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## **EDUCATION SYSTEM AS A FOUNDATIONAL COMPONENT IN THE RECONSTRUCTION OF A UKRAINIAN SOCIETY IN THE AFTERMATH OF A CONFLICT**

The **purpose** of this essay is to present a framework of recommendations designed to facilitate advancement in the field of higher education in Ukraine in the post-war era.

**Results.** The education sector is frequently adversely affected by violent conflict, resulting in long-lasting damage even after hostilities have ceased. The question of how education systems function in different social contexts has become an increasingly significant issue for both societies at large and for governments in recent times.

While education has often been perceived as a potential source of social differentiation and conflict, it can also serve as an essential instrument for maintaining and mitigating inequities. This approach is oriented towards empowerment rather than social control.

Moreover, educational systems should be designed with an awareness of the potential for conflict and a commitment to transforming structures, behaviors, and attitudes not only in the absence of conflict but also in the presence of peace. It is imperative that the education system be elevated to a position of prominence as a fundamental element in the reconstruction of post-conflict societies. The education system represents an integral component of societal infrastructure, playing a pivotal role in ensuring the fulfillment of intergenerational commitments.

The inability of a nation to educate its younger generations about its cultural values and traditions, in addition to imparting fundamental academic knowledge and abilities, ultimately undermines the very fabric of society.

Education is more than a mere building block of societies; it is the cement and mortar that bind together the elements that compose the foundational structure of societies. These foundational elements must be strengthened, especially by reforming the processes, structures, and content of education.

Educational interventions have the potential to contribute to the process of national development in a number of ways. In addition to playing a role in the more traditional, political and structural aspects of this process, they can also facilitate the more personal, communal and long-lasting process of building nationhood.

The term “nation-building” is used to describe the process of ensuring that citizens feel a sense of belonging to and contribution to their country. The implementation of an educational program designed to foster positive citizenship can facilitate the realization of more equitable socioeconomic development and greater social justice.

Furthermore, it has the potential to facilitate the maintenance and advancement of diverse cultural practices, foster greater intercultural understanding and

mutual respect, and encourage self-directed evolution among all groups within a nation.

Education for positive citizenship is a key factor in achieving more equitable socioeconomic development. It plays an instrumental role in developing more resilient and durable socioeconomic systems, ensuring security, and attaining peace alongside development.

**Conclusions.** The following recommendations are put forth as a means of facilitating progress in this area:

1. The formulation of educational policies should be informed by an analysis of the prevailing economic conditions within a given country. In the absence of such an analysis, the probability of effective implementation is significantly diminished. The current state of education at various levels serves as an illustrative example.
2. The curriculum should be reframed in light of cultural diversity, with a particular focus on the role of education in peace building and state-building processes.

This would enable students to live a responsible life and develop their political ideologies for the purpose of protecting national interests and maintaining the integrity of the state.

This would also ensure that their affiliations remain aligned with the state's interests rather than being driven by divisive ideologies that promote linguistic, ethnic, or sectarian divisions.

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**TEACHER'S WORK SELF-ASSESSMENT: PROFESSIONAL  
DEVELOPMENT TOOL HAVING DIRECT IMPACT ON  
THE EDUCATIONAL ACHIEVEMENTS OF STUDENTS**

Nowadays the Ukrainian educational system faces not only the impact of the COVID-19 pandemic, but also substantial challenges due to the ongoing war aggression of Russian Federation. These disruptive conditions have led to significant academical, psychological, and infrastructural challenges that must be addressed urgently for Ukraine's education system to recover and thrive in the long term. Teacher's work self-assessment is one of the powerful practices for teachers to evaluate their own work, reflect on their teaching methods, and identify areas for improvement which is increasingly recognized as a critical tool for professional growth and, ultimately, for positively impacting student outcomes.

The aim of the abstract is to observe the necessity of improving teacher's work self-assessment as its impact on the educational achievements of students is one of the key aspects of this process. During the research we would like to focus on such aspects as:

1. The concept of self-assessment in teaching: Teacher self-assessment allows to critically examine one's own performance in a low-pressure setting, encouraging honest reflection and personal accountability. Implemented by the order of the Ministry of Education and Science of Ukraine dated August 29, 2024 No. 1225 On approval of the professional standard "Teacher of a general secondary education institution" proves to be an effective frame for self-assessment.
2. How self-assessment fosters professional development: Identifying strengths and weaknesses, encouraging reflective practices, accepting and promoting lifelong learning, empowering teachers through setting relevant personal goals and giving them ownership of their professional development.
3. The impact of teacher self-assessment on student achievement: Teachers engaging in self-assessment are more likely to implement effective, evidence-based teaching practices that enhance learning outcomes.
4. Implementing effective self-assessment practices: Educators can integrate journaling social media accounts, peer and student collaboration and feedback, goal-setting and self-evaluation, use of teaching portfolios.

These aspects collectively can foster a culture of growth and continuous improvement as self-assessing teachers become more effective educators and their impact on students' learning and achievements increases, ultimately fruitful for everyone involved. Self-assessment, when embraced as a routine practice, has the potential to create a positive cycle of growth and achievement that benefits the entire educational community.

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### **THE POSITIVE IMPACT OF PLACING ADDITIONAL EMPHASIS ON LOCALLY PRODUCED GOODS ON A COUNTRY’S ECONOMY**

In today's market, where buyers are faced with a vast array of choices, it's crucial to place the right emphasis to subtly influence purchasing decisions in a way that benefits the country.

Many nations practice highlighting locally produced goods. For instance, in the Czech Republic, price tags in supermarkets often feature the Czech flag next to the price. In the United Kingdom, the packaging of many locally produced goods displays the national flag. Locals notice this and, when choosing between products with similar qualities, most of them tend to favor those made in their own country.

However, this practice is not universal. For example, in Ukraine, product packaging often lacks any emphasis on the country of origin. Each year, the country loses a significant portion of potential revenue because of this. Promoting local goods not only increases profits but also creates additional jobs and offers environmental benefits, such as minimizing transportation.

It's important not only to visually highlight local products but also to promote awareness about the benefits of buying locally produced goods. These items are often of excellent quality and, due to savings on transportation costs, they frequently come at a more affordable price.

There are many ways to support the growth of local businesses. For example, a business owner involved in growing and selling vegetables might purchase fertilizers from suppliers far from the area where they are needed. Providing an easy and accessible way to find local producers would increase the likelihood that the entrepreneur would choose a local supplier, which would in turn bring additional profit to the region and country. In many countries, apps are available to simplify the search for local businesses, such as *Nextdoor*. However, I couldn't find a similar application/website in Ukraine. Having a streamlined system for finding potential suppliers could have a positive impact on the overall economy.

It is very important to promote the idea that collaborating with local producers is safer due to easier communication, as well as reduced delivery times and costs.

To strengthen the country's economy, it's not enough to impose additional taxes on imports or offer better conditions to local producers. It is also crucial to promote the choice of locally-made products.



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## **TONGUE TWISTERS AS AN EFFECTIVE WAY OF FORMING PHONETIC COMPETENCE**

To be successful in foreign languages it is essential to have the right pronunciation. And the teacher's task is to form this phonetic competence in students. Tongue twister is one of the most effective means of its formation.

**Aim.** The use of tongue twisters in the formation of phonetic competence while studying foreign languages.

**Results.** It is essential to choose tongue twisters according to the topic of the lesson and the age of the students. Otherwise, it takes a long time to explain what it is about and to learn it by heart.

Tongue twisters help to prepare articulation apparatus for pronunciation of foreign sounds. They are like "warming-up" for lips, tongue, cheeks and jaws. It looks like "stretching" muscles which do not take part while speaking in mother tongue.

It should be mentioned that tempo and intonation are no less important. Students should repeat after the speaker like an echo.

You need to start by slowly pronouncing each word very clearly and separately, making small pauses between the words. Then make pauses between the phrases. It is very useful to pronounce it with interrogative intonation. Remember! Every tongue twister should be pronounced at least three times.

Sometimes it is very difficult for students to pronounce some unique foreign sounds like English [ð], [θ], [r]. In this case a mirror can be used at the lesson. The teacher not only explains how to pronounce this sound correctly, but the students visually see their articulation apparatus in the mirror and it helps them to focus on the correct position of the tongue. This way, students better and faster master a new sound for them.

Here are some examples of tongue twisters with the most difficult English sounds to pronounce:

[ð], [θ] – Elizabeth's birthday is on the third Thursday of this month.

- I think this thing is rather thin, but he thinks the thing is neither thick nor thin.
- The thirty-three thieves thought that they thrilled the Throne throughout Thursday.

[r] – Roberta ran rings around the Roman ruins.

**Conclusions.** We come to a conclusion that using tongue twisters while studying foreign languages helps students to develop the articulation apparatus, develops memory, speech speed and reduce foreign accent.

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### **THE ROLE OF GAMIFICATION IN THE PROCESS OF LEARNING ENGLISH**

Today's students are gadget addicts, so the possibility of developing practical gamified English courses is a promising one in the process of teaching language.

The **aim** of the presented paper is to analyse the main aspects of the gamification of English language courses.

**Results.** After the start of the Russian invasion, online education became a necessary measure and soon began to gain momentum. In this case, innovative resources and materials are very important in order to stimulate student motivation for learning activities. Gamification as a methodology allows to transfer the gaming experience into the learning experience. The use of game-based methods in the educational process is timely for memorising not only individual words but also phrases. Different games help to develop skills in studying phraseological units, idiomatic expressions, phrasal verbs and collocations. The game can also be used as a means of practising certain grammatical themes such as subjunctive mood and sequence of tenses.

Online games, virtual simulations, and interactive quizzes give students the chance to engage in hands-on learning, apply their knowledge in realistic scenarios and receive immediate feedback. These tools use the features of games to create memorable and emotionally meaningful learning experiences. Digital platforms and tools designed specifically for gamification offer rich functionality and engaging environments that can be easily adapted to the needs and requirements of learners. Sometimes lecturers use game-based learning methods where the entire learning process is structured in the form of a game. This may include creating narrative quests, virtual treasure hunts or role-playing games that immerse students in a fictional world where they apply their knowledge and skills to overcome challenges and achieve learning objectives.

One popular platform is Kahoot, which allows teachers to develop interactive quizzes and competitions that engage students in friendly competition and instant feedback. The interactive and competitive character of this language learning platform has increased students' enthusiasm and desire to practise and improve their language skills. In the same way, Minecraft Education Edition, a gaming platform for learning, gives teachers the ability to create a gaming environment where students can explore, cooperate, and solve problems. Lecturers carefully select and develop engaging scenarios, characters, challenges and rewards to create an interactive and immersive learning environment. They implement the planned gamified learning material by integrating game elements and mechanics into the curriculum.

**Conclusions:** In summary, gamification encourages active participation, develops a sense of fulfilment and fosters a love of learning. The constant advancement of technology and the availability of gamification platforms gives lecturers more and more opportunities to use gamification in learning English language.

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### **CRITICAL THINKING IN THE EDUCATIONAL ENVIRONMENT**

A person of the 21st century must be endowed with the ability of critical thinking. The age of the information world requires orientation in the world of information. As V. Churchill noted, "Who owns information owns the world!", which acquires an important meaning in the educational environment. Education seekers have the opportunity to process a significant amount of information from various sources, which may be original or may not correspond to reality (fake information). The distribution of false (fake) information for the purpose of manipulating people's opinion is a significant problem today and requires the search for new approaches to the educational process.

The **purpose** of the scientific work is to convey to the listeners the importance of critical thinking in the process of processing information obtained from various sources.

**Results.** In the process of learning, starting from school years and studying in institutions of higher education, it is necessary to develop thinking skills. First of all, this concerns critical thinking, asking clarifying questions, working with primary sources of information, analyzing and comparing different opinions on a certain issue, conducting own research, etc. An important role in achieving the outlined goals is a responsibility of the teacher (instructor), because it is them who can demonstrate the negative consequences of using information without using critical thinking, the danger of such information in the further study of disciplines and the formation of a worldview. The teacher is required to help choose the right vector of information processing in the learning process and support the students of education.

The following definition of critical thinking is fixed in the scientific literature: "it is the important tool that allows us to correct the distortions caused by our "lenses" of perception, allows us to establish an adequate interaction with reality, with ourselves and be more effective" (Crawford et al., 2006, p. 22). In the educational process, critical thinking develops various abilities of the student and makes him a successful individual in the future. Understanding the material from different disciplines helps to organize the acquired knowledge and use it. As O. V. Tyaglo notes in his work, "Critical thinking is conscious thinking that monitors how certain decisions were made and how certain tasks were solved" (Tyaglo, 2008, p. 47).

**Conclusion.** To develop critical thinking in students, the teacher needs to create certain problem situations within the discipline and together (on a partnership basis) look for ways to solve problems using available information. The teacher's support in finding and understanding contradictory information and ways to solve problematic situations is a guarantee of the proper level of development of a person's critical thinking. Work in the specified direction requires proper training and a high level of knowledge from teachers. Therefore, the development of critical thinking should be provided for in the general and special competencies of the disciplines, as a key to the preparation of a successful student of education.

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### **METROSCHOOL IN KHARKIV CITY IN WARTIME**

The Russian-Ukrainian war has severely impacted Kharkiv in Ukraine, particularly its educational infrastructure. Schools in the region have been heavily damaged by Russian bombs, missiles, and shelling. In Kharkiv, more than 200 secondary schools, more 50% of the total, have suffered damage, 45 schools completely destroyed.

As a result, schoolchildren in Kharkiv have been studying online for four years, 2 years due to the pandemic and 2 years now because of the ongoing war. The continued threat of Russian missile attacks, it can reach Kharkiv city in 30-40 seconds, necessitates online learning.

The **purpose** is to show the unique solution in Kharkiv city in wartime to have face-to-face classes in the city's underground metro system known as “Metroschool”.

**Results.** In response, a unique solution in Kharkiv city was proposed: conducting classes in the city's underground metro system, known as "Metroschool." This idea, supported by parents, teachers, and city authorities, provides a safe, offline learning environment. Metroschool first opened on September 4, 2023, for elementary schoolchildren, starting with 800 schoolchildren. The number of schoolchildren has since grown, and middle and high school classes have also been added. Classes are held in two shifts, with school buses transporting schoolchildren to five metro stations equipped with 19 classrooms. These classrooms are located in underground passages between stations, ensuring safety.

By June 2024, Metroschool had enrolled more than 2,500 schoolchildren, Figure 1. However, the capacity of Kharkiv metro is limited, serving only 2% of school-aged children. Consequently, Kharkiv is constructing several totally underground schools, one is expected to be completed by the end of 2024, others by 2025.

#### **Figure 1**

*Metroschool in Kharkiv*



**Conclusions.** Despite the war, education in Kharkiv continues, demonstrating the resilience and bravery of its people. Glory to Kharkiv, glory to Ukraine.

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### **INNOVATIVE FEATURES OF THE CANVA ONLINE SERVICE**

Visual communication plays an important role in the modern educational environment, and one of the tools that facilitates its implementation is Canva (Antonenko & Mintiy, 2023). The main purpose of this article is to show how the Canva platform with the *Canva for Education* plan helps educators create interesting and professionally designed learning materials. With access to millions of premium templates, photos, illustrations, and fonts, teachers and students can easily work on projects in real time using commenting and collaborative editing features.

Canva integrates with popular learning management systems (LMS) such as Moodle, Google Classroom, Microsoft Teams, and others, making it easy to create and distribute assignments. The platform also supports the creation and editing of videos, animations, and presentations, which is especially significant for distance and blended learning.

The results of using *Canva for Education* include improving the quality of the educational process, as the tool makes it easy to create vivid graphic materials. This increases the interest of students, facilitates the perception of complex information, and promotes better memorization of the material.

The platform's tools stimulate creative thinking and the development of digital skills, which are important for further professional activities. In addition, Canva helps teachers save time on classroom preparation thanks to its intuitive interface and ready-made templates (Canva, n.d.).

Thus, *Canva for Education* is a useful tool for the educational process that not only makes learning more interesting, but also helps to develop important modern skills. The use of this platform promotes deeper learning and fosters a creative approach to learning. It also provides inclusive learning, allowing materials to be adapted to different styles of information perception (Kryvoruchko, 2024).

It is important to note that the experience of working with Canva also prepares students for future professional activities, where visual communication and design skills are becoming increasingly in demand.

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## **HUMANITARIAN ASPECTS OF EDUCATION AND TEACHING IN THE POST-WAR WORLD: CHALLENGES AND PROSPECTS**

### **Objective**

To explore the key aspects of humanitarian education and teaching in the post-war world: psychological support, inclusive education, infrastructure restoration, digital literacy, cultural heritage preservation, international cooperation, peace education, and professional development of teachers.

### **Psychological Support**

One of the most important aspects of post-war education recovery is the integration of psychological support into educational programs. Students and teachers who have experienced traumatic events need specialized support to overcome the consequences of war. This includes:

1. **Counseling:** Individual and group counseling sessions with psychologists to provide emotional support and develop stress management strategies.
2. **Group Therapy:** Sessions to discuss experiences and provide mutual support, helping participants share stories and find common solutions.
3. **Psychological Training:** Teaching self-regulation, relaxation, meditation, and breathing techniques to manage stress.
4. **Support for Teachers:** Programs for teachers on stress management and working with traumatized students.
5. **Safe Environment:** Ensuring physical and emotional safety for open discussions about experiences.

Integrating these components into educational programs will help overcome the consequences of war, improve mental health, and create conditions for successful learning and teaching in a post-conflict environment.

### **Conclusions**

Restoring education after the war is a complex but necessary process. Psychological support will help overcome trauma. Inclusive education will ensure equal access. Infrastructure restoration will create safe conditions. Digital literacy will ensure the continuity of education.

Cultural heritage preservation will support national identity. International cooperation will facilitate the exchange of experiences. Peace education will promote tolerance. Professional development of teachers will ensure quality education. All these aspects will contribute to a stable and peaceful future.

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### **COACHING IN PROFESSIONAL EDUCATION OF FUTURE SPECIALISTS OF THE CIVIL DEFENSE SERVICE**

Professional education of future specialists of the civil defense service, both in peacetime and in wartime, makes a significant difference from the one in civilian institutions of higher education, taking into account the specifics of future professional activity. Psychological and pedagogical support, mentoring and coordination in matters of the set goals achieving have a favorable effect on academic and life success, which actualizes the subject of our research.

The **purpose** of the research is to highlight the benefits of coaching in professional education of future specialists of the civil defense service.

Life coaching, widely used in psychology, business, sports etc., is closely related to academic one as professors, realizing the scope of educational load on each cadet and student, try their best to implement individual approach.

According to our empirical studies the benefits of coaching in professional education of future specialists of the civil defense service are:

- identification of individual potential;
- consciousness of one's talents and strong traits of character;
- individual approach that ensures better efficiency of professional education;
- learning how to find hidden personal resources to achieve a goal;
- mastering optimal learning strategies;
- formation of the ability to see a problem from different angles;
- minimizing efforts and saving time (time-management) while achieving maximum result;
- growth of self-esteem;
- self-regulation competence;
- improvement of self-dependent research skills;
- psychological flexibility and overcoming resistance to changes;
- development of stress resistance skills, etc.

Note, that the choice of the coach and the future specialists should be mutual and voluntary, as far as the cooperation is supposed to be positively established.

As a result, coaching in professional education of future specialists of the civil defense service provides more opportunities for academic and professional success as compared to traditional educational approaches as it clearly defines personally most acceptable and suitable methods and ways of goal setting and achieving.

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**DEVELOPMENT OF STRESS RESISTANCE OF HIGHER EDUCATION  
STUDENTS IN THE CONTEXT OF WAR AS A PEDAGOGICAL  
NECESSITY OF THE PRESENT DAY**

The full-scale invasion of the aggressor country has a catastrophic impact on all social institutions of Ukraine, including education. The new reality of wartime has become a real challenge not only for teachers of schools, colleges, academies, and universities, but also for students of all levels of education. Adaptation of the individual to new socio-economic conditions that negatively affect the psychological well-being of each person remains one of the most pressing problems of the scientific community.

In addition to the usual comfort and safety, modern Ukrainian students have lost their usual form of learning activities. This happened first because of the impact of COVID-19, and then because of Russia's war against Ukraine. Students are part of a social group that is constantly under the influence of emotional stress due to the high level of demands and the large number of educational and intellectual tasks that need to be solved in a limited amount of time. Studying during military operations only adds to the stress on the emotional and cognitive sphere of students. Starting in 2022, the current political and military conditions make almost every student feel the impact of stress due to a variety of stressful events.

This negatively affects the acquisition of new knowledge, skills and abilities. It also has a destructive effect on the education of personal qualities and the formation of professional competencies. That is why today it is especially important for educators at all levels to pay attention to the impact of stress factors on the psycho-emotional state of students. A positive step would be to develop the skills of students to deal with stress and its consequences. And providing Ukrainian students with theoretical knowledge and practical skills to regulate their own emotional and psychological state can become a significant factor in stress resistance. Stress resistance plays a crucial role in maintaining a positive psychological state even in the most difficult life situations.

Developing students' stress resistance will help ensure their effective adaptation to the requirements of the environment and mitigate the negative impact of stress on their psychological state. This, in turn, will have a positive impact on the learning outcomes of students. A high level of stress resistance makes it possible to effectively counteract stressors, contributes to the achievement of goals and creative solutions to life difficulties, and the development of a high level of psychological well-being.

Stress resistance has a positive effect on academic achievement, plays a role in self-actualization and professional fulfillment of the individual. Thus, developed stress resistance has a positive impact not only on mental health. In the educational process, the development of stress resistance of higher education students is extremely important because of the positive impact on the ability of students to receive quality education, despite the impact of various stressors.



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**RESEARCH ON THE TRANSFORMATION OF VALUE ORIENTATIONS IN  
YOUNGER SCHOOLCHILDREN UNDER THE INFLUENCE OF CHILDREN'S  
LITERATURE, PARTICULARLY THE WORKS OF VSEVOLOD NESTAYKO**

The challenge of educating the younger generation in the context of dynamic social changes is a central task for pedagogy and other disciplines such as sociology, psychology, and philology. The development of moral orientations in children and their preparation for active participation in social life becomes particularly relevant amidst contemporary socio-political transformations. Children's literature is a key tool for shaping value orientations in children, making its study in the educational context of great significance.

Scientific studies have shown that children's literature plays an important role in fostering moral and social qualities in children. Literary works establish the foundations of value orientations such as responsibility, empathy, and patriotism, while also promoting critical thinking. The works of Vsevolod Nestayko are particularly noteworthy, as his contributions to the development of Ukrainian children's literature have been significant. His books are exemplary in combining entertainment with educational potential.

Exploring the educational potential of Nestayko's works allows us to view his literary output as a crucial component in shaping value orientations in younger schoolchildren. In particular, his writings emphasize the importance of such moral categories as friendship, responsibility, and love for one's homeland, which are highly relevant in today's society.

The main objective of this research is to analyze and systematize the methods by which Vsevolod Nestayko's works influence the formation of moral orientations in children of primary school age. Special attention is paid to how the artistic techniques employed by the author help children understand important social and moral norms.

Children's literature plays a special educational role as it directly influences the development of moral and social orientations in younger schoolchildren. Literary works such as *Toreadors from Vasyukivka* and *Extraordinary Adventures in the Forest School* by Vsevolod Nestayko are excellent examples of artistic works that not only entertain but also educate. Through the adventures of their characters, these works demonstrate important values such as friendship, responsibility, mutual aid, and love for one's land.

Nestayko's works also contribute to the development of critical thinking and creativity in children. The author uses simple, accessible language, making his books attractive to young readers. The dynamic plotlines and humor captivate children, while also helping them absorb important social lessons. Through the behavior of the characters, children learn to take responsibility for their actions, understand how to resolve conflicts, and make correct moral choices.

Another important aspect of Nestayko's works is their role in children's social development. His literature fosters social skills such as cooperation and communication. The characters in his works help children grasp the importance of teamwork, interaction, and effective communication. This educational impact

is important not only for the child's personal development but also for their socialization within a collective.

The study of children's literature, particularly the works of Vsevolod Nestayko, confirms their significant contribution to the educational process. Literature not only entertains but also has substantial educational potential, helping children develop moral and social orientations. Nestayko's works, thanks to their content and accessible language, stimulate the development of critical thinking, creativity, and responsibility in children.

Further research should focus on a deeper exploration of the pedagogical aspects of children's literature and its role in the educational process. Specifically, it is important to investigate how Nestayko's works can be utilized in educational activities to foster key competencies in schoolchildren. The influence of literature on the upbringing of a harmonious personality is an essential aspect of pedagogical science, making further research in this area both promising and necessary.

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**IMPLEMENTING TEAMS FOR PROFESSIONAL TRAINING  
IN THE MACHINE-BUILDING INDUSTRY**

Stages	Goal	Results	Conclusions
<b>1. TEAMS IMPLEMENTATION</b>	<p>Integrate a digital platform into the educational process to facilitate interactive and flexible learning for machine-building industry students. Ensure that the platform supports both synchronous and asynchronous learning methods.</p>	<p><b>Access to materials at all times and improved efficiency:</b> Students can access course materials, assignments, and resources at any time, allowing them to learn at their own pace and balance their studies with practical work experience.</p>	<p><b>TEAMS is a key tool for training skilled workers in the machine-building industry.</b> The platform helps create a flexible, dynamic learning environment that can adapt to the changing needs of students and the industry alike.</p>
<b>2. OPTIMIZING LEARNING</b>	<p>Optimize communication and learning processes by incorporating real-time collaboration tools such as video conferencing, chats, and file sharing. Utilize TEAMS' ability to integrate third-party tools and applications for enhanced interactivity.</p>	<p><b>Enhanced communication and student progress tracking:</b> Students and instructors benefit from more direct and immediate communication through chat, announcements, and feedback options, improving clarity and understanding. Student engagement increases with interactive elements such as live discussions, quizzes, and collaborative workspaces.</p>	<p><b>TEAMS promotes individualized learning approaches:</b> The platform's ability to tailor content and feedback to individual students makes it a powerful tool for enhancing each student's learning experience and addressing their unique challenges.</p>
<b>3. EVALUATION AND SUMMARY</b>	<p>Track student progress in real-time using built-in assessment tools such as quizzes, assignments, and peer reviews. Provide automated feedback and grades to help students self-assess and continuously improve.</p>	<p><b>Real-time progress tracking and automated testing:</b> Instructors can monitor student performance through detailed analytics and reports. This allows for timely interventions, helping struggling students and reinforcing strong performances.</p>	<p><b>The methodology of using TEAMS increases motivation and learning outcomes:</b> With clear visibility into their progress, students are more motivated to meet their goals. The automated features save instructors time, allowing for more personalized support.</p>

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### **CHARACTERISTICS OF TRAINING OF ATHLETES AT THE INITIAL STAGE IN POWERLIFTING**

**Objective.** The purpose of the study is to determine the types and means of training athletes at the initial stage in powerlifting.

**Results.** Training athletes at the initial stage in powerlifting has its own characteristics, which are aimed at the gradual formation of physical qualities and technical skills necessary for successful performances in this sport. At this stage, the focus is on the overall physical development of the athlete. It is important to ensure balance in the development of all muscle groups, avoid asymmetric load and the formation of incorrect motor stereotypes. This is achieved through general developmental exercises (running, jumping, flexibility and coordination exercises) and functional training, which are aimed at increasing endurance, strength and coordination of movements.

In powerlifting, the main exercises are squats with a barbell, bench press and traction. At the initial stage, it is very important to lay the right technical skills for performing these exercises in order to avoid injuries in the future and ensure progress in the results. The main emphasis is on a gradual increase in power indicators. At the initial stage, light weights are used in order to improve equipment and prepare the musculoskeletal system for greater loads in the future. The progress of the load is carried out gradually to avoid overloads and injuries.

Psychological readiness is an important aspect in powerlifting. Athletes from an early stage are taught to control emotions, focus on proper exercise and not be afraid of a lot of weight. The main methods of psychological preparation are the ability to relax between approaches, control breathing and concentration during exercise, learning positive thinking and self-fulfillment.

Motivation of athletes is a key element of their success. Coaches at the initial stage must constantly maintain interest in the training process through setting goals, creating a positive atmosphere during training, recognizing the achievements and progress of athletes.

Young athletes learn the basics of a healthy lifestyle, proper nutrition and adherence to the regime of the day, which includes sufficient time for recovery and sleep.

**Conclusion.** Thus, the training of athletes at the initial stage in powerlifting involves an integrated approach, including not only physical training, but also work on equipment, psychological training, motivation and compliance with the sports regime. Preparation at the initial stage lays a solid foundation for the further development of the athlete in powerlifting.

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### **MINDFULNESS TECHNIQUES AS A WAY TO OVERCOME ANXIETY**

The concept of "Mindfulness" is a modern definition and a new way of dealing with stress and anxiety. This term is synonymous with the word "awareness", that is, the ability of an individual to make his own choices and be responsible for his life at this moment. The purpose of my work is to investigate and analyze the importance of the mindfulness method in the process of overcoming anxiety.

The term was first proposed by T. W. Rhys Davids, a scientist who researched methods and ways to alleviate the course of stress and anxiety, and was finally approved in 1910. Since now and then the requirements for life dictated by society were somewhat different, the interpretation of this term changed a little. So what is Mindfulness in simple words?

Mindfulness is a practice that provides resolution of internal psychological conflicts and awareness of momentary thoughts, feelings and experiences of an individual. This is a person's constant attention to the dynamics and course of their feelings through conscious acceptance and understanding of them, and often through the process of conscious breathing. In this way, attention is sharpened on the reality in which the individual is, this in turn reduces the flow of negative thoughts and leads to calming the nervous system and reducing the level of anxiety.

Thoughts generate emotions, and emotions generate actions, so our behavior, lifestyle are often the consequences of thoughts that we do not cope with during a difficult period. To prevent this, you need to work on living in this moment and bring yourself back to reality. The first most well-known mindfulness technique is proper breathing (the individual can choose what he likes the most: breathing in a square, in a triangle, etc.). Receptor activation is the next technique for grounding and returning to reality, the person must name 5 objects that are nearby, 4 sounds that they hear, 3 smells that they smell, etc. Another technique is the "Butterfly" exercise. Before performing it, you need to rate your morale from 1 to 10 points. At the end, you also need to do this, for comparison. The person should cross their arms and tap themselves until the tension disappears.

So, the long quarantine, after this military and terrorist actions - all this greatly affected the general physical and psychological condition of Ukrainians. Many of us are under chronic stress, this leads to severe anxiety, which increases the standard of living and provokes the occurrence of many mental disorders and psychosomatic diseases. According to statistics, about 80% of Ukrainians have never sought help from a psychologist, so it is important that the population knows about psychological self-help methods, so that there is an opportunity to take care of themselves and their relatives in a crisis period of life.

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### **IMPROVEMENT OF THE FINANCIAL CONTROL SYSTEM WITHIN PUBLIC PROCUREMENT PERFORMANCE**

Purpose: to analyze the current state and problems of financial control within the framework of public procurement and to determine directions for its improvement. The article aims to justify the need to increase transparency, efficiency and responsibility in the field of public procurement by introducing innovative approaches to financial control. Special attention will be paid to the development of automated monitoring systems, the prevention of corruption risks and the improvement of legal regulation to increase the efficiency of the use of budget funds.

Public procurement plays a key role in ensuring state and municipal needs, which requires effective control for the rational use of budget funds. However, the modern procurement system often faces challenges, including: corruption risks, non-transparency of procedures and ineffective monitoring. One of the stages of overcoming this problem, we see the creation and implementation of the concept of improving the work of the "Kyivaudit" system in the field of procurement, which includes the development of transparent and effective control mechanisms for state and municipal procurement. The main goal is to ensure maximum openness of the process, reduce corruption risks and optimize the use of budget funds.

To achieve these goals, it is necessary to apply audit and mathematical modeling tools for forecasting and evaluation of procurement efficiency. The main stages of the concept include the following:

1. Creation of a mathematical model of procurement risk assessment. Model of risks allows you to identify the most dangerous or non-transparent procurements and set priorities for audit.
2. Implementation of intelligent analytical systems for automatic procurement analysis. Using machine learning algorithms to detect anomalous transactions. For example, clustering can be used to group purchases by similar characteristics and identify "untypical" contracts.
3. Optimization of the procurement process through cost forecasting and savings Regression models can be applied to forecast procurement costs based on historical data and macroeconomic indicators.
4. Implementation of the procurement efficiency evaluation system.
5. Audit automation. It is important to develop automated mechanisms audit, which will notify about risky purchases in real time. This will allow prompt response to violations and reduce the manual work of auditors.

Therefore, the expected results from this concept can be the reduction of corruption risks due to automated data control and analysis systems, the saving of budget funds due to the reduction of procurement prices and the improvement of their efficiency, and the improvement of the quality of purchased goods and services through the implementation of quality assessment criteria.

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### **MICRO-CREDENTIALS AS A MODERN EDUCATIONAL TREND**

In recent years, certificate programmes and micro-credentials have emerged as significant tools for expanding educational opportunities and facilitating swift adaptation to changes within the digital economy and the rapidly evolving global labour market. These short-term educational initiatives enable learners to acquire specific professional skills and knowledge, which can be accumulated, recognised at the national level, and integrated into more comprehensive qualifications. Their flexible structure supports various learning pathways, including in informal and non-formal education, making them particularly valuable for lifelong learning and career development in dynamic environments.

The EU Council has proposed ten guiding principles for developing and awarding micro-credentials, emphasising their integration into national qualification frameworks and related certificate programmes within technological systems for recognition, awarding, or validation of qualifications. In Ukraine, following discussions with stakeholders, these principles have been adapted to align with the National Qualifications Framework and local contexts, resulting in seven core principles: intentionality, learner-centricity, clarity, quality, practical orientation, modularity (to support flexible learning pathways, including validation, recognition, and accumulation), portability (recognising micro-credentials as personal assets), and authenticity (ensuring clear identification with the credential holder).

To obtain a micro-credential, educational providers design certificate programmes. In educational institutions, such programmes can complement mainstream education, serve as specialised components within the optional part of curricula, or be implemented as a means of non-formal education.

At Kryvyi Rih State Pedagogical University, within the educational-professional programme for the 011 Educational, Pedagogical Sciences Master's level, three small-credit certificate programmes (17 ECTS credits) are offered. One is called Pedagogy of Higher Education covering Gender Innovations in Education, State Educational Policy, Professional and Pedagogical Communication, History of Educational Systems disciplines. Another is Pedagogical Management, which covers Management in Education, Pedagogical coaching, Self-management for Modern Education Leaders, and Pedagogical Marketing disciplines. The certificate program Modern Specialist in Physical Education offers such disciplines as National Traditions of Play Culture in Physical Education, Health and Recreation Technologies in Physical Education, Professional Activities in Physical Education, and Current Issues in Physical Education).

In summary, implementing micro-credentials contributes to creating new opportunities for adult education, expertise development, and validation of informal learning.

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## **PROBLEMS OF ADAPTATION OF UKRAINIAN HIGHER EDUCATION INSTITUTIONS TO MODERN TRENDS IN EDUCATION**

In recent decades, the development of innovative technologies has completely changed the field of higher education. Today, the use of digital technologies has modernized the methods of a holistic educational process and created new opportunities for teachers, which has allowed them to provide students with the latest knowledge and quality competencies. Due to the problems in the development of educational technologies, new trends in the educational process are emerging that radically change the emphasis of higher education to changing conditions. The **purpose** of the study is to investigate and reveal the problems and aspects related to the process of adaptation of educational institutions to the demand for professionally developed specialists in the labor market in modern conditions.

Research **results**. Since the integration of artificial intelligence (AI) technologies into the educational process, gamification, and data privacy and security for e-learning platforms require significant investments in the educational process and its infrastructure, there are quite large adaptive problems and potential limitations that need to be addressed. In addition, due to unequal access to educational technologies and digital applications, there is a gap between the existing capabilities of higher education institutions in providing the educational process, the theoretical knowledge acquired by their graduates, and the demand for highly professional specialists in the labor market.

In order to guarantee the protection of personal data of students, teachers, administration of higher education institutions and information about the educational process in 2024 by increasing digital literacy and modernizing security rules on the Internet, attention is being paid to the level of security and reliability of data privacy policies in higher education institutions. Another problem is the adaptive training and retraining of higher education teachers to current trends in demand for professionally developed young professionals in the labor market. This is because in 2024, effective adaptation to the integration of technology into educational activities will be crucial in the educational process. However, excessive dependence on digital technologies provokes ethical problems, and therefore it is necessary to ensure the optimal use of AI technologies in the educational process.

**Conclusions**. The main task of higher education institutions is to train professionally developed individuals who are able to apply the knowledge acquired during their studies in higher education institutions to solve the professional problems of today in their work. Adaptation of the educational process to the latest trends in labor market demand will allow to effectively modernize the educational process in higher education institutions, increase the effectiveness of methods of training specialists in accordance with the requirements of the present.



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### **ANALYSIS OF THE PROBLEMS OF TEACHING HIGHER MATHEMATICS IN HIGHER EDUCATION INSTITUTIONS OF UKRAINE**

During the integration of Ukraine into the EU, which is taking place in the conditions of martial law caused by the large-scale invasion of the troops of the Russian Federation into Ukraine and the occupation of part of the territory, the problem of the need for highly developed professionally qualified personnel became acute.

The question of mobilizing labor and professional resources to speed up the victory over the aggressor and the post-war reconstruction of Ukraine was particularly acute. The formation of professionally developed youth is impossible without effective assimilation in institutions of higher education (HEIs) of such a basic discipline as higher mathematics.

The **purpose** of the report is to analyze the main problems of teaching higher mathematics in higher education institutions of Ukraine in the current conditions.

Research results. Higher mathematics is one of the basic disciplines studied by students in the first years of higher education institutions of Ukraine. The knowledge that students get after studying higher mathematics is widely used by them when studying at graduation specialized departments in senior courses and during master's studies.

Unfortunately, today we see a reduction in the number of hours for teaching students of academic disciplines in classrooms and an increase in the number of hours for independent work of students. The situation with the teaching of higher mathematics is no exception.

Today, the educational process is organized in a distance format through the use of interactive information platforms with wide use of computers and tablets. The task of a modern teacher is not only to perfectly master the material of the educational discipline, but also to be able to organize the educational process in a distance format. This means that the teacher must also teach students to use information interactive platforms to support the learning process.

The fact that students with different levels of knowledge acquired in secondary education institutions enter higher education institutions is significant. Due to the rapid changes in the organization of the educational process in higher education institutions, in comparison with studies in secondary education institutions, quite often first-year students cannot quickly adapt to studying in higher education institutions, as a result of which their academic performance deteriorates.

Therefore, the teacher's task is to help first-year students adapt to studying at a higher education institution, to "build bridges" between studying in secondary education institutions and studying at a higher education institution.

**Conclusions.** The main goal of studying higher mathematics in higher education institutions of Ukraine is to provide basic knowledge that will be used by students during their studies in senior courses at graduation departments, and later, the formation of a professionally developed personality capable of applying the acquired knowledge in professional activities.

The organization of the educational process in higher education institutions of Ukraine in a distance format requires the motivation of students, their desire to make efforts in acquiring knowledge.

The daily efforts of each person in professional activities, faith in the victory of Ukraine, conscientious attitude to the educational process when studying in secondary, professional pre-higher and higher education institutions – all this will accelerate the victory of Ukraine and accelerate the post-war reconstruction of our country.

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### **THE IMPACT OF DIGITAL LEARNING ON COGNITIVE AND EMOTIONAL DEVELOPMENT IN HIGHER EDUCATION**

The shift to digital learning has become a defining feature of modern education, especially within higher education institutions. The rapid adoption of online platforms, driven by the COVID-19 pandemic, has altered how students and educators interact with content, peers, and the learning environment itself. While this transformation offers increased accessibility and flexibility, it also brings new challenges for students' cognitive abilities and emotional well-being. The purpose of this study is to explore the dual impact of digital learning on these key psychological areas, focusing on both the potential benefits and drawbacks it poses for students in higher education.

This study synthesizes research findings from recent studies examining digital learning through the lens of cognitive load theory, emotional resilience, and self-regulated learning. Data was collected from a variety of sources, including quantitative studies that measure academic performance and psychological well-being, as well as qualitative interviews conducted with university students and professors who have experienced the transition from traditional to digital learning environments. The results show that digital learning has a complex impact on students' cognitive and emotional development. On the positive side, the flexibility and self-paced nature of online learning have empowered students to take greater control over their educational experience. Many have developed stronger time management and self-regulation skills, which are crucial for academic success.

However, the study also highlights several cognitive challenges, including increased cognitive load due to the need to juggle multiple digital tools and platforms. This can lead to mental fatigue, making it harder for students to concentrate and retain information. In terms of emotional well-being, digital learning environments can lead to feelings of isolation and loneliness, as students are deprived of the face-to-face interactions that typically foster a sense of community. The lack of in-person support from peers and educators may exacerbate stress and anxiety, particularly during times of academic pressure.

Digital learning has brought about a paradigm shift in higher education, offering significant advantages in terms of flexibility and accessibility. However, its impact on cognitive and emotional development is nuanced. While students benefit from the autonomy and convenience that online platforms provide, educators must be mindful of the potential for cognitive overload and emotional distress.

To support students holistically, future educational strategies should consider adopting a blended learning approach that combines the advantages of both digital and in-person education, along with mental health resources to help students navigate the challenges of online learning. This balanced approach can help mitigate the negative effects while enhancing both cognitive performance and emotional resilience in higher education settings.

## **SONGS AND MUSIC IN TEACHING CHINESE FOR YOUNG LEARNERS**

Teaching the mother tongue in China takes place throughout the entire period of study, starting from young learners, becoming more difficult in middle school, and continuing in high school. Today, in order to teach the native language in China, language education should take into account modern forms, means, approaches, and resources. To promote Chinese language learning for young learners, the use of Chinese songs as a musical element becomes an interesting issue. The **purpose** is to analyze the necessity of using songs in teaching Chinese for young learners in China.

**Results.** Learning Chinese through songs is a very practical way to create a relaxed atmosphere in the classroom, it helps to motivate young learners to participate in classroom and extracurricular activities. I recommend bringing songs to class, listening to them, sing and move. Sometimes songs are seen as a tool of entertainment, and their special role in language teaching is underestimated or ignored. There are many reasons for this phenomenon, both in the school and out-of-school sectors.

This is due to the fact that music and songs have traditionally been seen as a form of entertainment in China, so the method of teaching songs in the mother tongue has not been widely recognized in Chinese language education at school. Songs in the native language create a relaxed and lively environment, enliven the atmosphere of learning the native Chinese language, and stimulate interest in learning. Listening to relaxed and beautiful music and singing a song, young learners relax quickly from excitement, the native language is learned naturally, quickly and easily.

Music and language have cognitive unities in many aspects, such as melody, rhythm, tone, aesthetics, etc., organically combining song and language teaching, using the aesthetic function of music to stimulate young learners' information absorption mechanism, that contributes greatly to the improvement of basic speaking and listening skills, as well phonetics. The example of learning Chinese while singing for young learners, Figure 1.

Figure 1. The example of learning Chinese while singing for young learners



So, the **conclusion** is songs and music play a necessary role in the development of language and speech knowledge, skills in the Chinese language.

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### **COGNITIVE MECHANISMS OF LINGUISTIC PROCESSING IN BILINGUAL INDIVIDUALS**

Bilingualism, the ability to use two or more languages, offers a unique perspective on cognitive processing. This research article examines the cognitive mechanisms that facilitate linguistic processing in bilingual individuals, focusing on how they manage two linguistic systems simultaneously. The aim is to investigate the effects of bilingualism on cognitive flexibility, working memory, and executive functions, and to explore the implications for language acquisition and use. Results indicate enhanced cognitive flexibility and working memory in bilingual individuals, suggesting that the cognitive demands of managing multiple languages strengthen underlying cognitive mechanisms.

The primary aim of this research is to analyze the cognitive mechanisms that underlie linguistic processing in bilinguals. This investigation will focus on three key aspects: cognitive flexibility, working memory and executive functions.

The results of the study demonstrated several key findings: enhanced cognitive flexibility, superior working memory performance and improved executive functioning.

The findings of this research support the notion that bilingualism enriches cognitive processes. The enhanced cognitive flexibility observed in bilinguals can be attributed to the frequent practice of switching languages, which strengthens their ability to adapt to new cognitive challenges.

The cognitive mechanisms underlying linguistic processing in bilingual individuals reveal a complex interplay between language and cognition. This research underscores the significant benefits of bilingualism, particularly in enhancing cognitive flexibility, working memory, and executive functions. The implications of these findings suggest that bilingual education and language learning should be encouraged, as they not only promote linguistic competence but also contribute to cognitive development.

Future research should explore longitudinal studies to assess how bilingualism influences cognitive abilities over time and whether these advantages persist into later life. Understanding these mechanisms can inform educational practices and cognitive training programs, ultimately fostering a more linguistically and cognitively adept society.

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### **THE IMPORTANCE OF LATIN LANGUAGE FOR MASTERING PROFESSIONAL TERMINOLOGICAL SYSTEMS IN THE POST-WAR PERIOD**

The aim of our work is to draw attention to the Latin language as the basis for the vast majority of professional terminological systems and to actualize the importance of studying the basics of Latin for mastering sublanguages of various professional fields.

The "Strategy for the Development of Higher Education in Ukraine for 2022-2032" defines the internationalization of higher education in Ukraine as one of the main stages, which involves intensifying the study of foreign languages and increasing proficiency requirements. The need to increase the number of international cooperation projects for educators and scientists, and the integration of Ukrainian theorists and practitioners into the global scientific space is highlighted. Unfortunately, the war is affecting the implementation timeline of this strategy.

One of the tools for internationalization and integration processes is the mastering of international terminologies. It is well known that Latin and Latinized Greek lexemes and morphemes form the basis of both natural sciences and humanities professional terminological systems in many world languages. We observe this in the introduction of new concepts and terms: homo ludens, Nihonium (Nh), media, postmodernism, coronavirus, micro-DNA, telemedicine, Omega block, inclusion, etc.

In scientific literature and communication, Latin words, set phrases, and abbreviations are traditionally used: census, status quo, data, ibid., de facto, Alma mater, ergo, per se, and others. Latin holds an important place in industry naming and branding, particularly in the field of digital technologies: Android, NVIDIA, Opera, Gemini, Optimus.

This indicates that Latin is only strengthening its position and expanding its areas of practical application to the newest fields. The Latin language, along with its function of preserving academic tradition, acquires new ones: unification (as it remains understandable to a wide range of theorists and practitioners) and neutralization of historical and political tensions. The latter is due to the fact that in the vast majority of fields that use Latin (medicine, law, natural sciences) Latin is not defined by the history of the states that used it. Such abstraction in nomination becomes of great importance in an era of global conflicts and crises.

The development of innovative technologies in professional fields, trends towards globalization and internationalization in education, and the strengthening of English as the language of international communication do not diminish the importance of Latin as the basis of terminological systems. It seems reasonable to predict the ascent of the Latin substrate representation in continuously developing specialized sublanguages. This indicates the expediency of including the Latin language (at least at the level of vocabulary and morphology) in the professional standards of a wide range of specialties.

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### **DISTANCE LEARNING AFTER THE WAR**

The **aim**. This research is aimed to study the prospective development of distance learning in the Ukrainian society after the war.

The **results**. Distance learning has possessed a significant role in the educational process since the Covid-19 pandemic. The significance of the ability to study and to teach from any place one can get an Internet access has become beyond any doubt. With the war, distance learning has gained even more credit. Many countries of the world have military experience in their history: Israel, Croatia, Bosnia and Herzegovina, Georgia and others. Ukraine has now become one of them, and it is worth thinking about the restoration of the educational sector today [1]. And other countries' experience will be significantly useful.

A lot of students and teachers were forced to move because of the Russian military aggression: some became internally displaced persons, some emigrated to other European countries. And it is distance learning that makes it possible for them to continue their education, their work, their studies, gaining knowledge for the future restoring of Ukraine. Most of the children who emigrated abroad continue studying at Ukrainian schools using the distance learning tools. The buildings of many Ukrainian schools and universities were physically destroyed by the Russian missiles, yet the teachers continue the educational process using the means of distance learning: various platforms such as Zoom, Google Classroom, Microsoft Teams or even messengers. Not only this allows teachers to keep their workplaces during the war, but it also provides the students with the possibility to study in their native language, not being left behind. Military actions became another impetus for changing the principles of the teaching process. Teachers realized that now their strength is not in the ability to tell something what students can listen to on YouTube or read on the Internet [2]. Now their strength lies in the ability to support, motivate, help students find their talent. It is obvious that students and teachers are in different places and conditions, and it is hard to come up with conditions that will equalize them [3]. As to the form of education, we often have to choose between safety and quality.

The **conclusion**. Distance learning, which has become one of the main means of education during the war period, is predicted to be of much importance for the educational process in Ukraine during the period of post-war restoration of our country.

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### **SOCIAL-EMOTIONAL SKILLS DEVELOPMENT IN SECONDARY SCHOOL STUDENTS**

The development of social and emotional skills among students in general secondary education institutions is a critical focus of the New Ukrainian school. This initiative is not merely a response to educational trends or an imitation of European practices; it is a necessity and a vital requirement driven by society's need for individuals who can adapt to today's dynamic world.

Such individuals must be capable of effective, constructive interaction with others and collaboration to achieve common goals for the benefit of their community and country (Майнаєв, & Рибалко, 2024).

Why is this important? Developed socio-emotional skills help individuals manage stress and contribute to emotional stability, which is particularly significant for Ukrainian children who, unfortunately, have experienced trauma due to the large-scale aggression against Ukraine.

Positive communication and motivation for self-preservation support the restoration of mental health. Through developing “soft” skills, students learn to manage their emotions – specifically, emotional self-regulation –which helps build positive relationships with their environment. Stable socio-emotional skills are the foundation of social cohesion and civic responsibility.

The increased interest in developing socio-emotional skills among students within the international educational community is due to the significant impact that “soft” skills have on an individual's life success.

According to Wonderlic, employers are concerned about the lack of “soft” skills in potential employees. The report, based on surveys conducted by the company, indicates that 93% of employers consider the presence of soft skills in a job candidate to be an important factor influencing their hiring decision (Wonderlic, 2016).

*How can socio-emotional skills be developed?* Social-emotional and ethical learning (SEEL) is undoubtedly an effective tool, with practices that can be applied either as a separate course or integrated into regular lessons.

The SEEL educational program, developed by Emory University, includes a set of practical exercises through which students learn empathy, positive communication, teamwork, and emotional management skills. This process is long and meticulous, one that cannot be rushed and requires a systematic approach.

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### **PROBLEMS OF SOCIAL ADAPTATION OF STUDENTS AFTER DISTANCE LEARNING**

Recent years have been particularly brutal for students in Zaporizhzhia, caught between the pressure of COVID-19 and lingering threat of war. When the pandemic hit, these changes to distance learning created obstacles for students not only due to disrupted routines but also limited social interactions. That transition not only changed the academic sphere but also deepened their sense of loneliness and unease.

In the context of the war, the proximity to conflict has further complicated their educational experience. The constant threat of violence and instability has placed immense pressure on young people, exacerbating their need for social adaptation.

Our students have been balancing navigating the new reality of virtual classrooms with managing their own emotions as residents in a war zone--many have faced trauma, loss and uncertainty about tomorrow. These challenge(s) have led students to a re-imagined sense of social connectivity, leading them in search for new ways that if offers engagement.

These findings provide insight into the wider ramifications of emergency distance learning and underscore the importance of policies to support these students, in terms that address their academic needs as well emotional health.

As students at State Medical and Pharmaceutical University navigate a blended education model that combines both online and offline learning, the challenges of social adaptation have become increasingly evident. While online classes provided a necessary lifeline during the height of the pandemic, the return to in-person learning has not been seamless. We noted that many students who attend offline classes are struggling to reintegrate into a social environment that feels foreign after prolonged periods of isolation. Therefore, the purpose of our study was to evaluate stress level and level of social adaptation of students who take off-line classes.

Materials and methods: surveys.

Results. some students began to experience social anxiety, difficulty connecting with others, and a lack of self-assuredness in becoming involved with their classmates as they transitioned back to traditional classroom experiences. Many students of Zaporizhzhia State Medical and Pharmaceutical University have shown a clear preference for online classes over traditional in-person learning. This inclination is driven by several factors that resonate with their current experiences and challenges.

We, teachers of the department of Histology, cytology and Embryology of Zaporizhzhia State Medical and Pharmaceutical University understanding the

unique circumstances that have impacted their students, are implementing various strategies to facilitate social reintegration and emotional well-being.

We have discovered an effective approach - the incorporation of structured social activities, both online and offline. We are organizing group projects (such as research groups in laboratory), collaborative learning experiences, and social events (f.e. science club) that encourage interaction among students. These activities not only promote teamwork and communication skills but also help rebuild connections that may have been weakened during periods of isolation.

In summary, students of Zaporizhzhia State Medical and Pharmaceutical University face significant social adaptation challenges due to the dual impacts of COVID-19 and ongoing war conflict, leading many to prefer online learning for its flexibility and safety. In response, teachers of our department are implementing strategies like social-emotional learning and structured activities to foster community and resilience, ensuring that students can navigate these difficulties effectively.

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### **CAUSES AND CONSEQUENCES OF ALGORITHMIC BIAS IN ARTIFICIAL INTELLIGENCE**

**Purpose** of the article: the article analyzes the causes and consequences of algorithmic bias in artificial intelligence, with particular emphasis on the impact of human stereotypes on the decisions made by neural networks. The need to explore solutions to the social, philosophical, and ethical issues related to the use of intelligent systems is highlighted.

**Results.** discrimination in intelligent systems often stems from data distortion during model retraining for new data types. In 1998, Professor John McCormick developed a real-time head tracking system using skin color detection, but its accuracy was limited for individuals with darker skin as it was trained on images of white employees (MacCormick, n.d.). Although newer techniques like facial keypoint detection have improved accuracy, discrimination persists. For instance, Robert Julian-Borchak Williams was wrongfully accused of theft due to erroneous facial recognition by DataWorks Plus' system (Hill, 2020). Despite clear evidence that he was not the perpetrator, Williams was detained and his family had to invest significant resources to clear his name.

Discrimination can also have deadly consequences. Robert McDaniel, flagged by the PredPol crime prediction system for living in a poor Chicago neighborhood and having minor infractions, was placed under constant surveillance. This attracted suspicion from criminal groups, leading to his death after multiple attacks (Stroud, n.d.). Such cases highlight the interplay of technical and ethical issues in AI. Traditional machine learning methods obscure decision-making processes, resulting in a "black box" phenomenon where even developers cannot fully explain the system's conclusions (1. Carrasco Ramírez, 2024, p. 14-19). The lack of transparency and self-evaluation in these systems undermines their effectiveness and raises safety concerns.

**Conclusions:** artificial intelligence is not entirely neutral and can reflect real-world biases, further entrenching social inequality and discrimination. Its use in critical areas such as healthcare, criminology, and education poses significant societal risks. Therefore, interdisciplinary approaches involving engineers, philosophers, sociologists, ethicists, and legal experts are essential to develop methodological and ethical principles and regulatory frameworks to ensure the fair, safe, and human-centered application of AI.

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### **FEATURES OF THE ORGANIZATION OF THE EDUCATIONAL PROCESS AFTER THE WAR (BASED ON THE RESULTS OF THE EXPERIENCE OF FOREIGN COUNTRIES)**

One of the main directions of the reconstruction of the country after the war is the effective organization and implementation of the educational process in educational institutions. That is why studying the experience of foreign countries regarding the organization and implementation of the educational process after the war is a very relevant issue for Ukraine.

Analysis of the experience of organizing the educational process after active hostilities in countries such as Croatia, Bosnia and Herzegovina, Serbia and Israel shows that the post-war educational process has its own characteristics, namely:

- a significant number of participants in the educational process experienced the loss of their loved ones and relatives; long-term separation from loved ones and relatives; loss of housing, were under occupation and witnessed the death and injury of people;
- some students had the following psychological and mental characteristics: anxiety disorder, post-traumatic stress disorder, depression, dissociative disorders, such as voluntary social isolation, depersonalization and reluctance to talk;
- a certain number of students had behavioral disorders, in particular aggression, antisocial and criminal behavior, a tendency to violence, and were also more prone to alcohol and drug abuse;
- irritability and apathy, indifference to studies and past hobbies, outbursts of anger and aggression, causeless fear and crying were often noticed in children;
- children had sleep problems, nightmares, memory and concentration problems.

Taking into account the mentioned features, it can be concluded that in the educational process after the war the role of all pedagogical workers, who must be able to provide psychological first aid and support to all participants in the educational process will increase significantly. This fact requires a significant increase in hours during the training of future teachers in the direction of providing psychological help

One of the key points for successful conflict resolution and reconciliation with the past is the inclusion of conflict resolution methods in the educational program. The educational process should help overcome psychological trauma, reduce social polarization and discrimination on any reasons.

According to Israel's experience, everyone who works or lives with children should have the skills to interact effectively with them psychologically. Israel realized that it is impossible to attach a psychologist to every child that is why it is necessary to make sure that every father and mother, every teacher and educator knows how to interact with stress and relieve it.

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### **DIGITALIZATION AS A BASIS FOR REFORMATTING MODERN UKRAINIAN EDUCATION IN THE CONDITIONS OF WAR**

The war has brought significant changes to all spheres of Ukrainian life, and education is no exception. However, this challenging period has also opened up new opportunities for our development.

One such opportunity is the digitalization of the educational process. It has become a necessity – a powerful tool to ensure continuity of learning, adaptation to new, dangerous, wartime conditions, and the overall improvement of education quality.

The widespread implementation of online platforms and tools has enabled students to continue their education even during active military operations and occupation. This has become possible thanks to internet accessibility and a variety of digital tools, platforms, and applications for conducting classes, communication, and assessment.

Digitalization allows to create personalized learning paths for each participant in the educational process, taking into account their progress, interests, and needs. This is especially important in situations where learners are in different locations and have varying levels of preparation.

The war has underscored the need to reformat education and develop new skills in both students and educators. Through digitalization, it is possible to develop critical thinking, creativity, collaboration, information management skills, acquire new knowledge, and open up new opportunities for development, learning, and employment. At the same time, international cooperation in education, science, and technology between Ukraine and other countries is expanding.

Ukrainian educators have the opportunity to exchange experiences, use foreign online platforms and resources, invite international experts to conduct classes, participate in internships, receive grants for educational development, and organize joint international events.

The digitalization of education has become a necessary response to today's challenges. It not only ensures the continuity of learning during wartime but also opens new opportunities for the development of national education. However, to successfully realize this potential, it is essential to overcome existing challenges and ensure equal access to quality education for all learners.

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### **USING DIGITAL STORYTELLING TO FOSTER EMOTIONAL EXPRESSION IN STUDENTS**

In a post-war world, educational systems will face significant challenges, particularly in addressing the emotional needs of students who have been exposed to psychological post-war trauma (e.g., PTSD, grief, loss of comrades), as well as other types (e.g., displacement, family separation, witnessing violence). Such challenge is finding methods that support emotional expression, especially in an increasingly digitalized and online-based educational environment. Digital storytelling (DST) has emerged as a powerful tool to help students, particularly those affected by conflict, process and express their emotions through multimedia narratives. The growing trend toward digital learning provides a unique opportunity to integrate DST into educational settings, where it can be used to help students find a voice and cope with trauma. According to research, DST allows students to combine personal stories with digital media, creating a therapeutic outlet for their emotions.

This work aims to explore how digital storytelling can facilitate emotional expression in students affected by trauma. It focuses on the importance of continuing digitalization in education to support emotional development. By leveraging digital tools, educators can offer students an interactive platform that not only improves their emotional well-being but also encourages them to share their experiences and reflect on their personal narratives in a supportive and creative environment. Numerous studies highlight the effectiveness of DST in enhancing emotional and psychological resilience among students. For example, research shows that students involved in DST projects display higher levels of emotional expression, confidence, and collaboration. DST has been shown to increase student engagement and motivation by allowing them to personalize their learning experiences, which is particularly important for displaced students who may feel disconnected from traditional environments. The study by Kim, D., Li, M. “Digital storytelling: Facilitating learning and identity development” found that students who participated in digital storytelling projects over an 8–14-week period showed significant improvements in their speaking and expressive skills, as well as emotional fluency.

In the aftermath of conflict, it is crucial for educational systems to prioritize digitalization and integrate tools such as digital storytelling to address the emotional and psychological needs of students. DST provides a valuable platform for emotional expression, allowing students to process trauma and build emotional resilience. It is a flexible, engaging, and effective method for helping students articulate their feelings, especially in an online learning environment. As digital education continues to evolve, DST should be further explored and integrated into curricula as a tool for emotional and cognitive development in trauma-affected populations.

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### **THE ROLE OF EDUCATION IN POST-WAR SOCIAL REHABILITATION**

This research **aims** to investigate how education can be utilized as a key instrument in rehabilitating societies after armed conflict. The specific objectives are:

1. To evaluate how both formal and informal education systems contribute to rebuilding social cohesion, psychological well-being, and economic recovery.
2. To explore the approaches and programs adopted in post-war societies to restore trust, foster peace, and support the reintegration of displaced persons.
3. To identify the major challenges that educational systems encounter in post-conflict environments, and propose solutions for overcoming these barriers to ensure lasting peace and development.

**Results.** The exploration found that education plays a multi-dimensional role in post-war rehabilitation. Educational institutions, through trauma-informed teaching and psychosocial support programs, have proven essential in helping children and adults recover from the emotional scars of war. Schools often serve as safe spaces where individuals can begin to rebuild their sense of normalcy.

Education facilitates the reintegration of displaced individuals and ex-combatants into society by offering vocational training and civic education. Programs that emphasize tolerance, diversity, and conflict resolution were shown to significantly reduce post-war social tensions.

Post-war educational programs that focus on skill development and literacy significantly contribute to economic recovery. By providing job-relevant skills and fostering entrepreneurship, education aids in reducing unemployment and poverty, key factors in preventing the recurrence of conflict.

Including peace education and history curricula that foster a culture of remembrance and reconciliation helps to prevent the resurgence of conflict. Case studies in Rwanda and Bosnia highlight the positive impact of curriculum reforms aimed at addressing the causes of previous conflicts.

**Conclusions.** The findings suggest that education is indispensable in rebuilding a fractured society after war. For education to be an effective tool in post-war rehabilitation, it must be inclusive, adaptable, and tailored to the specific needs of the affected populations. Investments in educational infrastructure, teacher training, and curriculum development are essential for long-term peace and stability. Furthermore, collaboration between governments, non-governmental organizations, and international bodies is crucial to ensure the sustainability of educational initiatives in post-conflict zones.

Educational policies focused on healing trauma, fostering inclusivity, and promoting skills for economic independence are critical to restoring social order and promoting long-term peace. The success of education in these contexts lies in its ability to transform individuals, mend communities, and foster a culture of dialogue and mutual respect.

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### **ON THE WAY TO BETTER EDUCATIONAL RESULTS**

It goes without saying that the future of our country largely depends on our youth as they are here to come instead of us in all the spheres of society. The future of our country is in their hands. That is why we cannot deny the importance of education for generations of young people.

The **purpose** of the article lies in the necessity of a better understanding of the future potential of Ukrainian educational system, thorough analysis of the current situation and making a bigger picture of what might be ahead.

The years of Covid quarantine, followed by the war, have been playing not a good role in the educational situation. Nevertheless, knowing the importance of the future post-war changes is crucial so that we can constantly improve the situation, update it and implement the necessary changes.

Hopefully, the importance of knowledge and all-round education will be consistently growing. We need to continue teaching our students to think and be able to do practical tasks.

Time is a valuable resource, sometimes spent on unnecessary activities which our students are supposed to do with their parents a greater part of the day. Their health can be also at stake as they have no time to attend clubs or go for a walk. Teachers have been bombarded with much paperwork, so they simply have no possibility to educate in the right way.

The **results** of the work involve the importance of coming up with updated activities, taking into consideration the fact that AI can be widely used by students when submitting tasks.

A lot should be also done in the field of burn out avoidance as we have been going through extremely difficult times. Our students have been left without cultural life and socialization that can also have negative effect in the future.

**Conclusions.** The importance of after war changes is great as education is one of the most significant areas in the life of any society. Ukrainians are a strong nation capable of changing their country and the world. That is why the role of educating young people is as vital as never before.



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### **THE MAIN TECHNIQUES TO TRANSLATE ENGLISH COMPUTER TERMS INTO UKRAINIAN**

The **purpose** of the abstract is to analyze the main techniques which are used to translate English computer terms into Ukrainian.

**Results.** The main part of new computer terms comes into the Ukrainian language mostly from English. This is explained by the fact that the main software is produced exactly in the territory of English-speaking countries.

Having analysed the English and Ukrainian computer terms, we can identify the following translation techniques:

1. Calque (loan translation) is the formation of new words or expressions created by copying the morphological structure or meaning of a foreign word or expression (*quick keys – швидкі (гарячі) клавіші*).
2. Transcription and transliteration. Transcription is the reproduction of the sound of an English term using letters of the Ukrainian alphabet (*driver – драйвер*). Sometimes the translation includes an additional explanation (*PIN – PIN-код*). Transliteration is the reproduction of the letter structure of an English word. The actual pronunciation is irrelevant (*processor – процесор*).
3. Semantic equivalent. This is an English word/word combination that has a full correspondence in Ukrainian. The translator uses words existing in Ukrainian that reflect the meaning of the English term (*hyperlink – гіперпосилання*). There are different types of equivalents: full, partial, absolute and relative.
4. Direct loanword. It is a foreign-language word or phraseological turnover that has entered a new language system with the preservation of its sound features, for example *file – файл*. Direct loanwords are divided into literal and transformational loanwords. Literal loanwords are terms borrowed in the same form in which they exist in the source language (*interface – інтерфейс*). Transformational loanwords – by adding affixes, suffixes, endings to the base of borrowed terms (*interactive – інтерактивний*).
5. Mixed loanwords (semi-calques or hybrids) are terms formed by combining the previous two types, for example *temporary file – тимчасовий файл*.
6. Borrowing without translation. Some terms, expressions and names are used in writing and speech in English, which is common for social networks, messengers and operating systems, e.g., *Microsoft, Nvidia, CorelDraw*. Copying a terminological phrase implies writing the term in Latin.

**Conclusions.** The analysis of the translation of English computer terms into Ukrainian has shown a relatively high frequency of use of all above mentioned translation techniques. However, calque as well as transcription and transliteration are the most common ones.

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## **THE MAIN TECHNIQUES TO TRANSLATE AUTOMOBILE AND ROAD INDUSTRY TERMS FROM ENGLISH INTO UKRAINIAN**

The **purpose** of the abstract is to analyze the main techniques which are most frequently used to translate automobile and road industry terms from English into Ukrainian.

**Results.** The road industry is an important and relevant component of technical communication, which is constantly evolving due to new advances in transportation infrastructure. Translation of terms in this field requires not only knowledge of foreign languages but also a deep understanding of various technical aspects of automobile and road industry.

For this study, we have conducted a comparative analysis of the English and Ukrainian technical documentation of automobile and road industry, including official documents and manuals. As a result, the following translation techniques can be identified:

1. Calque, i.e., the transfer of the combinatorial composition of a word, when the constituent parts of the word are translated by the corresponding elements of the target language (*clutch pedal* – *педаль зчеплення*, *diesel engine* – *дизельний двигун*, *traffic artery* – *транспортна артерія*).
2. Using lexical equivalents is one of the most commonly used ways (*camber* – *прогин*, *torquing* – *затяжка*, *piston* – *поршень*).
3. Transcription (*clearance* – *кліренс*, *cylinder* – *циліндр*, *chassis* – *шасі*) and transliteration (*carbon* – *карбон*, *pedal* – *педаль*).
4. Lexical transformations. Generalization, when a lexical unit of the original language that has a narrower meaning is replaced with a lexical unit of the translation language with a broader meaning (*planting* – *озеленення*). The opposite way of changing lexical units can also be found (*transit facilities* – *дорожня інфраструктура*).
5. Grammatical transformations, such as permutation (*building edges* – *грані будівель*, *combustion chamber* – *камера згорання*, *traffic safety* – *безпека дорожнього руху*), additions (*clearance* – *дорожній просвіт*, *traffic offence* – *порушення правил дорожнього руху*, *traffic island* – *острівець для пішоходів на проїжджій частині дороги*) and omission (*antiroll bar* – *стабілізатор*, *leaf spring* – *ресора*).

**Conclusions.** Thus, the translation of automobile and road industry terms requires high accuracy, understanding of the technical context and the use of special techniques which allow to ensure the adequacy of the translation preserving the original meaning of technical terms in order to avoid distortions in manuals and documentation.

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### **INFLUENCE OF VARIOUS FACTORS ON THE COMPETITIVE PERFORMANCE OF HIGHLY QUALIFIED WRESTLERS**

**Aim.** To identify the factors that influenced the performance of athletes in the freestyle wrestling tournament at the 2024 Paris Olympics.

**Results.** Several factors affect the competitive performance of highly qualified freestyle wrestlers: 1. Technical and tactical preparedness, which can be further divided into several sub-factors: Activity (active and effective hand work; efficient movement on the mat; ability to apply pressure and destabilize the opponent through both functional capabilities and technical skills; constant contact with the opponent or keeping them under pressure; effective use of the entire working area of the mat, ability to act competently in the passive zone); Quality of technical and tactical performance in standing and parterre positions (ability to impose one's style of wrestling on the opponent; having techniques, combinations, and preparatory methods that can be applied in any match with any opponent; ability to wrestle effectively in different grips and impose a favorable grip on the opponent; having reliable actions in the parterre position); Defensive reliability (reliable defense against leg attacks; reliable defense against various techniques from grips in the standing position; reliable defense in parterre, especially in the bottom position; ability to counterattack when a favorable situation arises). 2. Functional preparedness is essential. Having good specialized physical training is necessary to fully utilize one's technical and tactical potential throughout the entire match. This requires a high level of explosive power, speed-strength abilities, specialized endurance, mobility in various body joints, and a well-developed coordination abilities. 3. Psychological factors are key to achieving victory in elite-level matches (Right mindset for matches against different opponents; persistence in imposing one's style of wrestling and striving for victory until the last second of the match; ability to use willpower in adverse situations during the match, such as energy depletion, fatigue, injuries, etc.).

Additionally, other factors may arise during competitive wrestling that can impact the final outcome of a match: Influence of referees' decisions on the course of the match; Actions of the seconds (coaches); Unplanned stoppages of the match (medical assistance, challenge reviews, or emergency gathering of the referee team to make a final decision on the evaluation of actions); - The athlete's health at the time of the competition (illness, injury sustained before or during the competition, unsuccessful weight cuts, unfavorable life situations affecting the athlete's psychological state, etc.).

**Conclusion.** The main factors affecting the success of highly qualified wrestlers' competitive performance can be divided into primary (directly influencing each match) and secondary (influencing individual matches). The primary factors include technical and tactical preparedness, functional readiness, and psychological preparedness. Secondary factors include referee decisions, actions of the seconds, unplanned stoppages during matches and the athlete's health at the time of the competition.

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### **RESTORING EDUCATIONAL PROCESSES AFTER THE WAR: INTEGRATING THE LATEST HR APPROACHES INTO TEACHING**

**Aim.** The study examines how modern HR approaches can restore the educational process after military conflicts. It focuses on strategies like emotional intelligence, employee engagement, communication, and change management to build sustainable systems. The goal is to identify HR practices that enhance motivation, psychological comfort, and productivity, supporting teachers and students in adapting to post-war challenges.

**Results.** The application of HR approaches in the restoration of educational processes after the war demonstrates a significant positive impact on several levels. Firstly, the development of emotional intelligence among both teachers and students helps better understand and support each other's emotional state, reducing tension within the group and increasing overall stress resilience. Secondly, adaptive leadership enables educational institution leaders to respond more effectively to societal changes, quickly adjusting curricula and teaching methods to new realities.

Change management, one of the key HR strategies, helps both teachers and students smoothly adopt new learning tools and methods, particularly digital technologies, which are a critical part of modern education.

Additionally, supporting psychosocial health and providing assistance to those who have experienced post-traumatic stress is crucial for creating a comfortable learning environment. Mental health and psychological support programs for both teachers and students help reduce the risks of burnout and emotional exhaustion. The implementation of regular training on communication, conflict resolution, and well-being support fosters the formation of strong and cohesive teaching teams.

**Conclusions.** The integration of modern HR approaches into the process of restoring educational systems after the war is an important and strategic step. It allows not only the reorganization of educational institutions but also the creation of a supportive learning environment that takes into account the specifics of a post-war society and the individual needs of participants in the educational process.

Modern HR strategies ensure the restoration of trust and mutual understanding between teachers and students, improving the quality of education through mental health support and the development of professional competence.

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### **THE ROLE OF HUMOR IN DEVELOPING THE EMPATHY SKILLS OF A CONSULTANT PSYCHOLOGIST**

The **aim** is to determine the role of humor in the formation of empathy skills of a psychologist-consultant.

**Results.** A psychologist-consultant in his work applies the skills of non-judgmental attitude and empathy in order to provide quality help to the client and to create a safe environment in which problems and difficulties in communication can be effectively solved. In this regard, the psychologist attaches great importance to his own communication skills, develops an understanding of emotions and humor. After all, at consultations, clients mostly speak indirectly, fearing to leave a negative impression, which is why they resort to using humorous strategies.

Understanding humor and its use in this case is the main tool with which the psychologist-consultant expresses his own emotions and impressions and at the same time interprets the client's emotions. Affiliative or supportive humor is recognized as an effective means of preventing stress in difficult situations. This type of humor helps to establish emotional contact, which is verbally fixed at the level of sincere acceptance and support, and laughter, in addition, raises the mood and reduces the level of worries about the actual problem.

Humor develops not only cognitive skills, but also emotional ones, because after a successful joke, people laugh, and after an inappropriate one, they can be surprised, angry and even upset. Sometimes humor provides more opportunities than a direct question to find out what a person is feeling. This encourages to share your opinion, real experiences, and not rationalized explanations, the interpretation of which is not always within the power of even a qualified psychologist with a sufficient level of empathy. Learning to use humor in your counseling can be challenging, but the benefits of this effort are found in the development of emotional intelligence, which includes understanding the emotions of others and your own. A psychologist-consultant, who knows how to use ironic comments to encourage the client and speed up the work in counseling, at the same time improves his emotional state and develops professional qualities.

**Conclusions.** The role of humor in the development of empathic skills of the counseling psychologist is determined by the fact that the understanding and successful use of jokes develops understanding of emotions and improves counseling outcomes. Also, humor creates an atmosphere of support and acceptance, which, in turn, provides an opportunity to involve the client in cooperation and encourage the expression of emotions. At the same time, with the help of humor, the psychologist-consultant can better understand the true feelings of the client regarding the actual problem and improve his own emotional state.

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### **THE IMPACT OF WAR ON HIGHER EDUCATION IN UKRAINE: CHALLENGES AND PROSPECTS**

The war in Ukraine, which has been going on since 2022, has had a significant impact on all areas of life, including the higher education system. Educational institutions have faced numerous challenges but also received new opportunities for development.

One of the biggest challenges has been the security of educational institutions. Many universities were under threat of shelling, which led to the closure of educational institutions in insecure areas. This made it difficult for students and teachers to access education. Many students were forced to leave the country or their educational institutions, which reduced the overall number of students in higher education.

Adapting to the new learning environment was another challenge. The introduction of distance learning has become a necessity, but is not always effective due to technical limitations, especially in regions affected by the hostilities. Many teachers and students do not have sufficient access to a stable internet connection, which makes the learning process difficult.

Financial difficulties have also become a serious challenge. Budget funding for universities is decreasing as funds are being redirected to defence. This poses a threat to the logistics of the educational process, equipment upgrades and research.

Despite the challenges, the war opens up new opportunities for the development of higher education. Universities are forced to introduce new technologies and teaching methods, which can lead to an improvement in the quality of education in the long run. Teachers acquire new digital competencies, and students gain experience in learning in an uncertain environment.

The war has also encouraged Ukrainian universities to cooperate more actively with international educational institutions. Many foreign partners support Ukrainian universities by offering scholarships and grants. This opens up new horizons for the internationalisation of higher education in Ukraine.

In addition, the war is raising the issue of social responsibility of universities. Higher education institutions can become support centres for students and teachers affected by the war, providing them with psychological assistance and humanitarian support.

The impact of the war on higher education in Ukraine is complex and multifaceted. Despite numerous challenges, there are opportunities for the development and improvement of the education system. To realise these prospects, support from the state and the international community is needed to ensure the security, funding and modernisation of higher education in Ukraine.

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### **IMAGES AND MOTIFS IN SERHII ZHADAN'S IDIOSTYLE**

The aim of this study is to explore and analyze the key images and motifs in Serhii Zhadan's poetry, focusing on how they shape the symbolic landscape of his idiolect. The symbolic images present in Serhii Zhadan's poetry are a part of the symbolic image of a nation's worldview, reflected through an artistic lens where symbols actively shape and embody the essence of the text, creating its subtext (Panasenکو, 2015). These images not only represent specific events or emotions but form a symbolic world deeply rooted in national and historical contexts. The metaphorical richness and multi-layered nature of these images help the poet convey philosophical reflections and current issues of contemporary Ukrainian society.

**Results.** Several primary images in Serhii Zhadan's poetry acquire symbolic meaning. One of these is the image of death, which in the poet's works is not portrayed as a tragic final event but as an integral part of the life cycle. Zhadan even gives death its specific scent "the smell of iodine remains in the stairwells, that is, the smell of death" (Zhadan, n.d.); "you see, as it turns out, death can smell like Turkish coffee..." (Zhadan, 1995). The image of the road, symbolizing the path of life or spiritual search, is also key to understanding his poetry. Importantly, Zhadan adds a personal touch to classic symbols, deepening their ambiguity while maintaining a connection to the collective subconscious. The symbolism in his imagery is closely linked to war, death, suffering, but also to hope and rebirth.

The motifs that permeate Zhadan's poetic works revolve around themes of struggle, loneliness, journeys, and the search for life's meaning. The motif of struggle often manifests as an internal conflict of the individual or as a social and national resistance. An important theme is the journey, which has a dual meaning: it can be both a physical journey and a spiritual path to self-awareness. "For the characters in Zhadan's collections, to be in constant motion is to seek a way out of hopelessness, thus affirming their existence, their place in the world" (Kovalenko, 2024, p. 93). In this context, the urban motif plays a significant role, revealing themes of alienation and isolation in modern society.

**Conclusion.** Serhii Zhadan's work is characterized by exceptionally deep symbolic content and multi-layeredness. The leading images and motifs in his poetry form a cohesive poetic world that not only reflects contemporary events but also explores eternal themes of life, death, and human relationships. The metaphoric and symbolic elements in Zhadan's poetry serve as key tools for expressing philosophical and emotional quests, making his poetic legacy profound and multi-dimensional.

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### **CREATION OF A DEVELOPMENTAL ENVIRONMENT IN A PRESCHOOL EDUCATION INSTITUTION IN THE CONDITIONS OF MODERN CHALLENGES**

The relevance of creating a developmental environment in a preschool education institution has increased significantly in the conditions of modern challenges, in particular during the operation of the legal regime of martial law and in the post-war period. These conditions require the adaptation of educational processes to new realities, the provision of psychological support for children, as well as the creation of a safe and stimulating environment for the development of preschool children.

The main goal of the work is to reveal the specifics of the organization of the developmental environment of the preschool education institution during the legal regime of martial law and in the post-war period.

In modern conditions of the organization of the developmental environment, the emphasis is on creating a safe and stable space that contributes to the emotional stability and psychological comfort of children. Given the increased stress levels caused by military action, it is important to create an environment where children can feel safe, supported and have access to resources that support their holistic development. Among the key tasks is the introduction of innovative methods and the integration of psychological and pedagogical approaches that correspond to new realities.

In the post-war period, the emphasis shifts to the gradual reintegration of children into normal life, where much attention is paid to restoring social ties, teaching the skills of peaceful coexistence, and developing critical thinking. The developmental environment must be flexible, adaptive and oriented to the individual needs of each child, which allows for the most effective development in conditions where the educational process of children has been interrupted or disrupted due to military actions. The issue of emotional support for children who may have various forms of traumatic experience requires special attention in the organization of a developmental environment in the conditions of martial law and the post-war period. For this, it is necessary to integrate elements of art therapy, play therapy and other methods aimed at reducing the level of stress and fear into the educational process.

So, we came to the conclusion that the creation and organization of a developmental environment in preschool education institutions during the martial law and in the post-war period is a critically important task. It requires a comprehensive approach, which includes ensuring safety, emotional support and adapting educational processes to new realities. This environment should be flexible, inclusive and oriented to the individual needs of children in order to promote their comprehensive development and social adaptation, even in conditions of increased stress and after experienced traumatic events.



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### **THE RATIONALE BEHIND THE USE OF ENGLISH TERMINOLOGY IN MODERN MEDICAL ATLASES**

**Purpose.** To examine the rationale behind the use of English terminology in contemporary medical and biological atlases.

**Results.** Article 1 of the Law of Ukraine as of 04.06.2024 No. 3760-IX 'On the Use of the English Language in Ukraine' specifies that English is one of the languages of international communication in Ukraine. The atlases usage while studying fundamental medical disciplines is an integral part of doctors' training as well as their professional activity. English plays a key role in the process of standardising medical terminology which facilitates the exchange of information between specialists from different countries and minimises the risk of medical terms misinterpretation. A significant number of international medical classifications, such as the ICD, are in English. Consequently, the use of English-language terms in atlases guarantees a more accurate comprehension of these classifications. English language proficiency among doctors allows them to make and use medical documents internationally. Medical atlases that employ English terminology serve as a standard for the preparation of scientific articles and publications, which in turn increases the level of Ukrainian doctors' participation in international research and projects. Students who are proficient in English terminology have an advantage when taking international medical exams such as the USMLE or PLAB. Knowledge of English enables participation in international research projects and conferences, facilitating the exchange of experience and best practices. In order to gain international accreditation, medical institutions are required to meet a number of criteria, which frequently include the use of English terminology. Many medical protocols and standards of care are written in English. The use of English-language atlases serves to guarantee the adherence to these standards in practice.

**Conclusions.** The use of English in modern medical atlases is a scientifically sound and necessary step to improve the quality of medical education and practice in Ukraine. It promotes terminology standardisation, provides access to up-to-date scientific data, facilitates international cooperation and improves communication with patients and colleagues. In the context of globalised medicine, the integration of English into teaching materials can be considered an investment in the future of Ukrainian medicine and its competitiveness in the international arena. Thus, the use of English in modern medical atlases ensures standardisation, accuracy, access to up-to-date knowledge and facilitates the integration of Ukrainian doctors into the global medical community.

### **EXPLORING SYNESTHESIA IN LITERARY ANALYSIS**

*Synesthesia*, a unique perceptual phenomenon, holds a special place in literary studies and artistic creation. It is a complex psychophysiological phenomenon in which stimulating one sense causes an unusual reaction in another, creating a “bridge” between different sensory systems.

In literature, synesthesia appears through the blending of visual, auditory, tactile, taste, and smell sensations, allowing authors to create exceptionally vivid and multidimensional images.

This research **aims** to examine synesthesia as a topic within literary studies and explore its use in literary texts.

**Results.** For a long time, synesthesia was viewed primarily within the fields of rhetoric and stylistics. It was seen as a type of metaphor that combines different sensations, such as “*loud red*”, “*bitter cold*”, or “*sweet sound*”. In this sense, synesthesia functions as a tool to intensify emotional perception, which is particularly evident in the works of symbolist and modernist writers.

Writers and poets use synesthetic metaphors to express complex emotional states, create an expressive atmosphere, and enhance the aesthetic impact on the reader.

In modern literary studies, synesthesia is analyzed from various perspectives. Researchers define it as a unique type of metaphor that integrates different sensory experiences, allowing authors to create multilayered images that engage readers’ associative thinking.

*Synesthesia* serves several functions in literary texts:

- *Emotional intensification*: Combining different senses enhances the emotional impact of the work.
- *Creation of new images*: synesthetic metaphors open new horizons for text interpretation.
- *Associative thinking*: it stimulates readers to engage more actively in perceiving and understanding the work’s content.

Contemporary research on *synesthesia* in literary studies highlights its interdisciplinary nature. It is studied not only in literature but also in psychology and neurophysiology, offering deeper insights into perception mechanisms and their influence on artistic creation.

**Conclusions.** *Synesthesia* is a significant topic in literary criticism, as it opens new possibilities for analyzing literary texts. Its capacity to blend different sensory dimensions makes it a powerful tool for creating rich, multilayered images that enhance the reader’s aesthetic experience.

Further research into this phenomenon may lead to a more comprehensive understanding of its role in the literary process.

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### **BINARY ARCHETYPES AS THE FOUNDATION OF THE NARRATIVE IN YURII ANDRUKHOVYCH'S "THE MOSCOVIAD"**

**Purpose.** Yuri Andrukhovych is one of the most prominent figures in Ukrainian postmodern literature. His work has consistently attracted scholarly attention, as shown by numerous critical articles in Ukrainian periodicals from the 1990s to today, which focus on his prose.

**Results.** The aesthetic and philosophical structure of Andrukhovych's novel *"The Moscoviad"* presents a model of a mythological journey based on binary archetypes. In mythopoetic and religious traditions, a journey represents a connection between two specific points in space, and a defining feature of this journey is its difficulty. The path of the mythological hero is marked by increasing obstacles and dangers, turning the journey into a heroic feat. This journey typically begins at a sacred place – such as the sky, a mountaintop, a world tree, a palace, or a temple – and ends at a destination that holds ultimate sacred values or obstacles, the overcoming of which grants access to these values.

In *"The Moscoviad"*, binary archetypes like "up-down", "heaven-hell", "here-there", "present-future," and "individual-system" serve as abstract, universal constants within the story's inner world. These oppositions recode reality and shape the novel's moral and aesthetic framework. The binary relationships in *"The Moscoviad"* appear on multiple levels, including ideological ("heaven-hell"), spatial ("down-up", "Kyiv-Moscow", "Ukraine-Empire"), temporal ("present-future"), social ("individual-system"), and psychological (internal conflict).

Through these layers, we observe how primary archetypal oppositions are transformed within a contemporary postmodern novel, reflecting both historical and current themes that influence character and behavior—whether of an individual, a family, a nation, or humanity as a whole.

This exploration brings up a need to identify the core aspects of binary archetypes that emerge in ways different from classical traditions. These archetypes play a role within the broader cultural and philosophical context of 20th- and 21st-century literature.

While postmodernist aesthetics often reject established classical criteria, challenging the hierarchies traditionally formed by binary structures, the timeless tension between humanity and the world – and the contradictions it brings – remains unavoidable.

**Conclusions.** The analysis of this literary text reveals that the prominence of any given opposition is shaped not only by prevailing aesthetic trends but also by the unique creativity, tastes, and psychology of the writer. The direction and emphasis of these binary oppositions can shift based on such factors. In *"The Moscoviad"*, these oppositions are particularly relevant within the context of post-Soviet Ukraine's evolution, where the place of the individual in modern society and in the universe is being reconsidered from a fresh, democratic perspective.

### **STRUCTURAL FEATURES OF ELLIPTICAL SENTENCES IN ENGLISH**

Elliptical sentences have repeatedly been the object of attention of many scholars who have studied the issues of syntax (P.S. Dudik, M. Swan, etc.). Traditionally, an elliptical sentence is understood as an incomplete sentence in which the omission of a structurally necessary element can be easily restored. A characteristic feature of structurally incomplete but semantically complete sentences is the fact that they are always complete in meaning, and the missing member of the sentence is established not from the speech situation or context but from their own meaning.

Elliptical sentences are considered a kind of incomplete sentence, although their structures are different from the actual incomplete sentences (contextual and situational), which are both structurally and semantically incomplete. The specificity of elliptical clauses is that they are semantically complete and structurally incomplete. Let's compare: I had a ceremonial Luftwaffe saber; I still do.

The above sentence is elliptical and can be transformed into "I still have it." Ellipticalization is based on pre-textual information and is the result of omitting the subject and representing the predicate verb with the auxiliary verb "do."

The procedure for restoring the missing element in the compared languages is based on the transformation of reconstruction and substitution. This technique makes it possible to distinguish the ellipsis from a number of similar syntactic phenomena and makes it possible to realize the fact that it is a very common phenomenon in the syntax of modern English.

Regardless of the nature of the language – analytical or synthetic – the process of ellipticalization is based on the obligatory-distributive relations between two or more elements of the predicative construction. The directionality of the retained element allows the addresser to omit the element that is the object of the directionality, and the addressee can easily reconstruct it.

It is not necessary to reproduce the omitted sentence member to express an opinion. On the one hand, such compression of meaning creates grammatical incompleteness, and on the other hand, the meaning of the missing link is suggested by the semantics of the explicitly expressed components, which makes elliptical sentences understandable even out of context or in isolation from a particular speech situation. Violation of the structural and syntactic integrity of a sentence does not lead to a violation of its semantic content. For example: "Cook nettles exactly as you would spinach" corresponds to the transformation "Cook nettles exactly as you would cook spinach."

Due to its analytical nature, elliptical sentences with unexpressed auxiliary verbs are typical in English: "Do you like it?" asked Mr Wonka. ← Do you like it? "And she want something?" ← Does she want something? It should be noted that such omission is possible only before personal pronouns, except for the pronouns "I" and "it."

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### **CHALLENGES IN TEACHING PSYCHOLOGY AFTER THE WAR: ISSUES AND SOLUTIONS**

War not only transforms societal and political structures but also deeply affects the psychological state of individuals. This means that after the war, teaching psychology will face several new challenges that educators will need to address. **Aim:** to outline new approaches to student education in the post-war period.

**Results.** Changes in social conditions, the emotional state of students, and the post-war realities will dictate new approaches to education.

1. Psychological and Emotional State of Students and Educators. After the war, many students and educators may have experienced personal grief, loss, or trauma. This will directly affect the atmosphere in the classroom and the readiness to learn. Psychological trauma, stress, and post-traumatic stress disorder (PTSD) could become significant obstacles to the learning process. Educators must be prepared to work with students dealing with these issues, focusing more on the emotional state of all participants in the educational process. Additionally, learning programs may need to be adapted to the needs of students who may require more time to grasp the material due to their psychological conditions.
2. Increased Focus on Trauma Psychology and Rehabilitation. There will be a growing need for specialized courses in trauma psychology, psychological rehabilitation, crisis counseling, and working with people who have experienced trauma. Traditional curricula may not cover the knowledge necessary for understanding and working with individuals who have experienced war, loss, destruction, and displacement. Therefore, there will be a need to review and update educational materials to reflect the specifics of the post-war context.
3. Changing Role of Psychologists in Society. After the war, society will likely place greater emphasis on mental health and require more qualified psychologists. This will demand a stronger focus on preparing practical specialists in academic institutions. The challenge will be adapting curricula to meet real-world needs, with more attention given to practical skills such as crisis counseling, psychological support for military personnel, their families, and civilians affected by the war.
4. Ethical Challenges in Teaching. Psychologists will need to address new ethical issues that will arise in the context of post-war recovery. How should sensitive topics related to the war be taught without retraumatizing students? How can discussions of wartime experiences be handled without triggering traumatic memories? It will be essential to not only teach academic knowledge but also professional ethics in working with trauma-affected clients.

**Conclusions.** Teaching psychology after the war will face numerous challenges related to students' psychological trauma, the need to adapt curricula, increased demand for specialists in crisis and trauma psychology, as well as resource and staff shortages. It is crucial to start developing strategies now to adapt education to these new realities, considering the psychological context of post-war recovery.

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### **PROSPECTS FOR THE DEVELOPMENT OF HIGHER EDUCATION IN UKRAINE DURING THE WAR AND POST-WAR TIMES: SOME ASPECTS**

**Purpose.** An effective educational environment is a necessary prerequisite for the development of any civilized society. In the conditions of the war and post-war times, the preservation, development, improvement of the quality of higher education, its modernization in Ukraine is both a very urgent problem and, at the same time, a great challenge of today. After all, in the extremely difficult conditions that arose after the beginning of the full-scale invasion of the Russian Federation (hereinafter referred to as RF) on the territory of our country on February 24, 2022, both educators and students faced new difficulties in the implementation of the educational process.

The **results.** Despite all the difficulties, the educational process in our country did not stop. Moreover, on April 14, 2022, on the website of the Cabinet of Ministers of Ukraine, the order dated February 23, 2022 No. 286-r "On the approval of the Strategy for the Development of Higher Education in Ukraine for 2022-2032" was published. This document is aimed at the implementation of Euro integration processes and is focused on the period of Ukraine's accession to the European Union. At the time of the publication of the said Strategy, the goals and tasks provided for in it were considered as a detailed road map for the reconstruction and continuation of the reform of the higher education system of Ukraine in the post-war period. Since the fulfillment of the specified tasks would allow to reduce the negative, destructive consequences for the system of higher education of our country, caused by the open armed aggression of the Russian Federation against our country.

However, today's realities have shown that Ukraine, as a country that is actually at war and strives for victory, needs a review of strategic documents that were formed in peacetime, and the formation of new educational priorities in the field of high-quality and safe education. And so, at the end of June 2023, the Ministry of Education and Science of Ukraine invited the public to work on a strategy for the transformation of education and science. At the same time, relevant minister Oksen Lisovyi noted that "The key question is the person in the center of attention. All changes are for people and about people. Bet on technology and innovation so that Ukrainians have the best opportunities, and the state has powerful human capital" (Strategy for the development of education and science until 2030: when and what to expect).

**Conclusions.** The newest National Strategy of Education and Science must be built taking into account the hard lessons that our country received as a result of the full-scale invasion of the Russian Federation. In particular, this concerns the implementation of innovative teaching methods, the use of digital technologies, support for entrepreneurial thinking and the development of language skills. That in the future will allow to significantly expand opportunities for learning at all levels of education, in particular, for students.

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### **PEER ACCEPTANCE OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN THE SCHOOL CONTEXT**

**Purpose.** One of the more serious reforms in the last thirty years, in the field of education, is the design and implementation of the inclusive model of education. Numerous theorists, researchers, practitioners, politicians, international organizations, parents of children with developmental disabilities, as well as people with developmental problems themselves have contributed to the conceptualization of inclusion, especially from the nineties of the last century until today. Today, there is no doubt that inclusive education has had a significant impact on the development of the education of children with disabilities and on the development of societies almost all over the world. Although inclusive education refers to all children and youth who, for any reason, encounter obstacles to full participation in school life and who need additional support in education, in this paper we specifically focused on one group of children - students with disabilities the development.

The paper presents an elaboration and evaluation of scientific and professional evidence on the positive effects that inclusive education produces on the inclusion of children with disabilities in the interaction with their typical peers, as well as some specifics of the social interaction between them.

**Result(s).** Whereas one of the important arguments for the inclusion of students with developmental disabilities in regular school concerns their social development through the establishment and development of social interactions with peers in a natural environment, we have specifically addressed the importance of educators' competencies that are necessary to address the challenges associated with involving students with developmental disabilities in peer interactions, or, more specifically, the importance of competencies for the application of strategies that foster the social acceptance of students with special needs by their peers in the school context.

In order to enable students with developmental disabilities to function successfully socially in the context of inclusive education, it is necessary to continuously develop a favorable psychosocial climate in the grade, for which teachers play the most important role. The research findings show that the psycho-social climate in the inclusive educational context primarily depends on: the attitudes of teachers towards inclusion and children with special educational needs and the ways of promoting them to other participants (typical students, parents, teachers, ...) in the educational process; the appropriateness and richness of methodical approaches to working in an inclusive classroom.

When it comes to the frequency and quality of social interactions of students with developmental disabilities, the following views are confirmed: students with developmental disabilities have a significantly lower number of social interactions than typical peers; their participation in joint activities with peers without disabilities in development is significantly less common; the acceptance

rate of students with developmental disabilities is significantly lower relative to the acceptance rate of typical peers; significantly less often (very rarely) students develop lasting friendships with their classmates; Their socializing takes place mainly in the school space.

But while it is evident that children with developmental disabilities often face problems with the socialization plan, this does not mean that there should be no effort to include these students in regular schools as much as possible. In addition to this finding, several research arguments can be put forward: students with developmental disabilities are more intensively involved in their natural environment – they have the opportunity to make contact with peers more often without developmental disabilities; adopt models of acceptable peer behavior, practice social skills, and advance their social competence. On the other hand, students without developmental disabilities learn to embrace differences, overcome prejudices, mentor and help. They learn to be more tolerant not only of people with developmental disabilities, but of other individuals as well.

**Conclusion(s).** Therefore, regardless of the numerous obstacles faced by schools in the process of reviving an inclusive model of education, it is justified and possible to encourage, develop and strengthen social interaction between typical students and students with disabilities in their development. Regular schools offer the opportunity for physical proximity and direct contact to diversity. Hence, the pedagogical design of social situations in which students are appropriately directed and instructed in their roles is perhaps the key factor that can determine, in a positive sense, the role of each student.

Justifiably, today the quality of school education is also measured by its inclusiveness, because inclusive education is a social strategy for the development of inclusive societies.



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### **INFORMAL FORMS OF EDUCATION IN THE FIELD OF HOSPITALITY: ADVANTAGES AND DISADVANTAGES**

**Objective.** In light of the dynamic growth of the service sector and increasing competition, there is a necessity to explore new methods of hospitality as well as innovative approaches to education in the field of hospitality. Thus, the application of informal learning forms is becoming increasingly relevant.

**Results.** Informal learning forms in the field of hospitality may encompass a range of diverse approaches and methods, including training sessions and workshops, online courses, internships, mentorship, knowledge exchange, group projects, case studies, webinars, and more.

The advantages of these informal learning methods can be outlined as follows:

1. **Flexibility:** Informal learning formats such as training sessions, workshops, and online courses allow individuals to learn and acquire new skills at any time, regardless of their schedule constraints. Furthermore, during the learning process, each participant can choose their own pace and timing, creating a more conducive environment for acquiring essential knowledge.
2. **Practical orientation:** Training sessions, workshops, and online courses emphasize practical tasks rather than solely theoretical content. This focus increases the likelihood of applying newly acquired knowledge in everyday activities and allows more time for hands-on practice, which can also be completed at a self-determined pace. Practical assignments may include scenarios drawn from real-life events, helping participants understand and address potential problem situations in advance while devising strategies for their resolution.
3. **Motivation for self-directed learning:** By increasing the time allocated for learning, which can be scheduled according to individual preferences, motivation and initiative are enhanced. This approach allows learners to select topics that interest them the most and engage with the material more thoroughly by revisiting or reviewing previous concepts.
4. **Networking opportunities:** During training sessions, workshops, and online courses, participants have the chance to share thoughts and information with one another, exchange experiences, and establish professional contacts. This fosters improved communication skills, which are essential in the service industry. Moreover, the practice of interacting with others supports career advancement by increasing the potential for further enhancement of knowledge and skills.

Despite the numerous advantages of informal educational methods in the field of hospitality, which primarily include convenience, increased practicality, motivation, and real-world application, there are also several drawbacks:

1. **Lack of standardization:** Due to the vast number of educational programs, there is no unified standard for their development and assessment of quality according to educational benchmarks. Additionally, there is a lack of data comparing the effectiveness of standard and non-standard learning forms, making it impossible to evaluate their quality in relation to other methods. Given the plethora of training sessions, workshops, and online courses, many of which may only serve

an informational purpose, it can be asserted that not all of them are practical or applicable; some may be uninformative or not aligned with educational programs, levels, or actual needs.

2. **Limited certification:** In most cases, no certificate is provided upon completion of a course, or the certificate lacks significant value for employers or educational institutions. Consequently, it is challenging to validate or verify acquired skills and demonstrate professional competence and knowledge. If an online course includes relevant practical assessments with feedback or requires the completion of specific tasks, then the certificate may hold appropriate validation and legal weight; however, such instances are not common.
3. **Insufficient theoretical foundation:** Often, when designing training sessions, seminars, or online courses, only one aspect is considered, rather than a combination of multiple criteria. As a result, a course may consist of a significant portion of theoretical content without practical assignments, which are not always evaluated for relevance and alignment with existing programs. Conversely, a course may focus solely on practical tasks without providing a theoretical background, which hinders the acquisition of comprehensive knowledge in both theory and practice. An inappropriate combination of such critical criteria raises questions about the relevance of the knowledge to the programs and its significance in professional activities.
4. **Costs of self-directed learning:** Participation in training sessions, workshops, and online courses can incur certain financial expenditures for both creators and users of these educational programs. This presents a significant barrier, as the development of specific informal learning methods requires the involvement of qualified specialists, as well as time spent on creating and rigorously assessing the practicality and educational value of such programs, particularly in the field of hospitality. Consequently, many programs are created relatively quickly without adequate validation and may not always provide the necessary knowledge in a particular area. Therefore, to enhance the quality of engagement with these informal methods, it is essential to thoroughly evaluate the content and practical objectives of the courses offered.

**Conclusion.** Thus, the use of informal learning forms in the field of hospitality presents both advantages and disadvantages. The application of informal methods can significantly enhance interest and motivation for learning compared to traditional approaches, as well as encourage the acquisition of practical skills. However, it is essential to develop appropriate standards for assessing such informal programs in accordance with educational standards and regulations. Additionally, there should be efforts to support the recognition of certificates obtained after completing courses, workshops, and training sessions at the national level, while also promoting the development of informal learning methods that are rapidly gaining traction and encourage the enhancement of professional skills and competencies.

It should be noted that a balanced combination of formal and informal learning may serve as the optimal solution for developing professional skills in this rapidly changing field. Formal education provides a theoretical foundation and a structured curriculum, while informal learning fosters flexibility and practical orientation. Furthermore, it is important to explore the integration of technology into the learning process, such as online platforms and mobile applications, which can complement traditional teaching methods. This will allow employees to access learning materials at any time and from any location, thereby enhancing their engagement and the overall effectiveness of their training.

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### **TOLERANCE IN TIMES OF CHANGE: HOW TO MAINTAIN UNITY IN DIVERSITY**

The **purpose** of this article is to explore the role of tolerance in periods of global change and transformation, particularly in multicultural societies. The paper also aims to identify the main challenges on the way to the development of tolerance and offer practical ways to preserve unity in diversity.

**Results. During** social transformations and crises, people become more vulnerable to fear and mistrust. This can lead to the growth of xenophobia, discrimination and division between groups of people on ethnic, religious or social grounds (Bauman, 2005).

The sense of threat that arises from uncertainty can lead to the search for "enemies", even among one's fellow citizens (Habermas, 1999).

Tolerance, in turn, helps reduce these tensions and avoid conflicts. It allows not only to maintain peace in society, but also to create an environment in which people of different cultures and worldviews can solve common problems together (Nussbaum, 2016).

Tolerance is the willingness to accept and respect other people, their thoughts, beliefs, cultures and ways of life, even if they differ from our own (Sen, 2009). It is not just a passive acceptance of diversity, but an active ability to interact, coexist and work together for the common good.

Tolerance does not require giving up one's own beliefs, but involves respecting the right of others to their views and freedoms.

The main tools for preserving tolerance are education and enlightenment, open dialogue, legislative guarantees of equality and social initiatives (Kapitonenko, 2018).

Critical thinking, empathy and knowledge of different cultures help build tolerance, especially among the younger generation (Kohn, 2007). Open dialogue promotes mutual understanding between different groups of people, helps avoid conflicts and promotes peaceful coexistence (Jenkins, 2018).

Human rights and equality laws provide a framework for the development of tolerance in society by providing protection against discrimination (Raval, & Kadel, 2018). Projects aimed at supporting minorities and integrating newcomers help to create a harmonious coexistence (Humenyuk, 2012).

There are many challenges on the way to tolerance, including information isolation, migration crises, and political manipulation (Todorov, 2002). That is, people often find themselves in "information bubbles", which contributes to the polarization of society and reduces the level of tolerance; large migration flows create tension between the local population and newcomers due to cultural differences; some politicians use the fear of "others" for their own purposes, inciting the population to intolerance.

**Conclusion.** Given these challenges, it is important to develop tolerance at all levels of society, starting with the individual efforts of each citizen and ending

with government programs. This is the only way to preserve unity in a world that is becoming more and more diverse and multicultural.

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### **RESOURCES FOR IMPROVING TEACHERS' OPENNESS TO INNOVATION IN GENERAL SECONDARY SCHOOLS**

Today, one of the key components of teachers' professional competence is innovation receptiveness, which allows teachers to effectively use innovative technologies in the modern educational process. Therefore, the **purpose** of our research is to find effective means to improve this quality of teachers.

**Results.** It should be noted that the studied quality of a teacher is constantly changing under the influence of external factors, scientific and technological progress, etc.

There is no stable, unchangeable list of its components, because each person has a unique set of abilities, without mastering which the process of adaptation and further professional performance of duties can cause significant problems.

The analysis of scientific sources and research results allows us to state that innovative receptivity contributes to the development of educators' abilities to realise themselves in the course of professional activity, to establish business contacts and to present the ideas to the professional community.

There is a large number of resources that can contribute to increasing the innovative receptivity of teachers in general secondary education institutions.

The *organisation of professional training and seminars* on innovation in education is one of the most important ways for teachers to acquire new knowledge and skills and to exchange experiences with colleagues. *Mentoring and coaching* is an important way of giving teachers the opportunity to work with experienced mentors or coaches who provide support and advice on the implementation of innovations.

*Encouraging initiative* helps to create the conditions for teachers to take the initiative, for example by encouraging them to make proposals for the introduction of new ideas and approaches that are productive for the educational process. *The use of innovative technologies* helps teachers to introduce modern educational technologies into the educational process, which can contribute to teachers' interest in using innovative methods and teaching tools.

*Collaborative work and learning* provide opportunities to organise working groups and collective projects, which in turn stimulate collaboration and exchange of ideas among educators, contributing to the development of innovative approaches to learning.

*Organising a culture of collaboration and openness* encourages the creation of an atmosphere in which teachers feel supported and have the opportunity to exchange ideas, which promotes the development of innovative receptiveness.

**Conclusion.** The above resources can be used individually or in combination to stimulate innovative activity among teachers in general secondary schools.

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**SPECIFICS OF THE ADVENTURE-DETECTIVE NOVEL: A CASE STUDY OF  
IREN ROZDOBUDKO'S “THE LAST DIAMOND OF MILADY”**

**Purpose.** In recent years, the detective novels of I. Rozdobudko have frequently been analyzed in literary studies for their diverse system of genre characteristics. However, the novel *“The Last Diamond of Milady”* is seldom included in such analyses, which makes our focus on it particularly relevant.

**Results.** In examining *“The Last Diamond of Milady”* within the framework of women’s adventure-detective literature – often overlooked in Ukrainian literary studies – we observed several distinct features:

**1) Dramatic Plot Developments:**

- The main events unfold in post-totalitarian Ukrainian society.
- The detective plot centers on a woman rather than a male police officer. Vlada, who has no background in investigations, embarks on a search for her missing sister Zhanna, whom the police have been unable to locate for nearly two years. At the same time, she strives to help her husband Max recover from a mental illness. Throughout the story, Vlada demonstrates ingenuity, courage, rational thinking, and thoroughness.
- The criminals are a group of four writer friends: Jean Dartov (Ivan Pyrienko), Vadym Portianko, Yaryk Aramenko, and Semen Atonesov. This group serves as a clear counterpoint to the characters in A. Dumas' works. They are portrayed as intelligent, calculating individuals driven by a desire for wealth and fame at any cost.
- The story reinterprets the famous tale of the diamond pendants (in a debate with A. Dumas), introducing Milady's twelfth diamond, which remained unused in her lifetime. This diamond has survived through generations of a Ukrainian family, enduring revolutions, famines, Stalinist repressions, and wars.
- Antonomasia is used creatively (e.g., Vlada calls Maksym “Don Quixote” and Siryi “Sancho Panza”).

**2) Portrayal of Gender Roles.** There is a strong female character, Vlada (and also Milena), and a weaker female character, Zhanna. Maksym's character also varies in strength, appearing strong with Zhanna but weak with Vlada. **3) Structural Features:** The novel includes a prologue and a distinctive epilogue, with events that are temporally and spatially separate from the main plot. The characters in the prologue and early sections differ, drawing readers’ focus to the unfolding central action (Zhanna's disappearance). **4)** Nearly all characters display notable intuition. **5)** The characters' suffering serves as a threshold they must cross to gain certain insights.

**Conclusions.** I. Rozdobudko's *“The Last Diamond of Milady”* is indeed a work of adventure-detective literature, as demonstrated by its use of detective mystery, its dynamic plot infused with psychoanalytic elements, its philosophical undertones, sophisticated stylistic choices, and spontaneous compositional elements.

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### **PECULIARITIES OF PSYCHOLOGICAL TRAINING OF HIGHLY SKILLED SWIMMERS**

**Objective.** analysis of modern psychological strategies aimed at increasing stress resistance and motivation of highly skilled athletes, with an emphasis on reducing competitive anxiety and ways to improve performance under high stress.

**Results.** Psychological training for highly professional swimmers describes the complex of activities directed at psychological stability development, motivation, and self-confidence necessary for successful performances in high-level competitions. At this stage of development, the emphasis will be placed on the athlete's ability to control emotions and maintain concentration under intense pressure, especially during important competitions. Therefore, to cope with stress more successfully, it is necessary to use special psychological methods.

Some of the most important strategies that athletes use to manage stress and enhance performance include self-talk and self-talk, and self-regulation. Self-talk and affirmations of self-persuasion focus attention on correct technique and build confidence, thus reducing anxiety. Self-regulation through breathing, muscle relaxation, meditation, focus on bodily sensations: helps control emotions and physiological responses, keeping the athlete in either a focused or relaxed state. All these measures together allow sportsmen to take responsibility for their psychological state under stress conditions.

One of the most effective means of enhancing the psychological endurance and general health of elite swimmers is the practice of yoga and meditation. Yoga develops such qualities as flexibility, balance, and concentration, which guarantee the correct performance of strokes. Regular yoga classes reduce muscle tension and anxiety. Meditation helps athletes train the ability to concentrate deeply by focusing on the breath and letting go of stressful thoughts. In addition, motivation of highly skilled swimmers is extremely important for their success. By motivating athletes through support in specifically defining short-term and long-term goals, swimmers focus on the process of improvement. The importance of continuously recognizing the athlete's achievements is also great, as it increases motivation and improves progress.

**Conclusion.** Effective recovery through psychological training, supported by a daily routine, rest, a clear sleep schedule and proper nutrition, allows swimmers to always be in high psychological and physical shape. Psychological training of qualified swimmers includes comprehensive work on developing resistance to stress, motivation, and abilities of concentration through visualization, yoga, and meditation. Such work not only allows swimmers to increase emotional stability and decline anxiety in training and competitive activity, but it also promotes sustainable professional growth and achievement of a high sports level at the international level.

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**PROBLEMS OF ACADEMIC INTEGRITY IN THE EDUCATIONAL AND  
SCIENTIFIC SPACE OF THE PEOPLE'S REPUBLIC OF CHINA.**

**Purpose.** To characterize the current state of the problem of academic integrity in the scientific and educational space of the PRC.

**Results.** Chinese scientists have established the main reasons that enable violations of academic dishonesty among young people: tolerant attitude to the manifestations of violations of academic integrity in society; dependence of social and material status on quantitative indicators of scientific activity (scientific publications, participation in scientific conferences, etc.); intensive development of digital technologies and their widespread use in education and science; lack of an effective system of accountability for violations of academic integrity by students, teachers, and researchers.

Today, the scientific and pedagogical community of the PRC is well aware that compliance with the requirements of academic integrity is the key to the development of Chinese science and education, recognition of their achievements at the global level, and will help to enhance the country's scientific prestige. To address current problems, the main directions of overcoming the manifestations of academic integrity in the scientific and educational sphere are identified, namely:

1. Directing the humanitarian vector of society towards the formation of high ideals of academic culture. This requires systematic and consistent educational work among children and youth by educational institutions, public institutions, and all social institutions. The priorities of high ideas of science, education, and knowledge should be broadcast through the media and information sources that shape socio-cultural values and standards in society, as well as the priorities of education should be popularized, and virtuous behavior in research and education should be cultivated as prestigious and socially positive.
2. Leveling the system of incentives at the level of obtaining a new social status, career growth, and material support for scientists and teachers depending on quantitative indicators of their scientific activity (articles, certificates for participation in conferences, trainings, seminars, etc.) The actual scientific contribution should be taken into account, not formal indicators and nominal participation in scientific work.
3. Developing an effective mechanism for combating academic misconduct, clearly defining responsibility for violations.

**Conclusion.** Thus, today, the issue of compliance with the requirements of academic integrity in the scientific and educational space of the PRC is a priority. Scientists, educators, and public figures, realizing the importance of quality education and strong science for the country's successful development and competitiveness in the global market, pay special attention to the formation of academic culture and virtuous behavior of the younger generation, and the development of a conscious responsible attitude to the results of their own education and research.



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### **APPLICATION OF INTERACTIVE VIRTUAL BOARD MIRO IN TEACHING TRANSLATION DISCIPLINES**

The development of modern technologies and social circumstances causes more and more attention to the practice of using digital technology tools, virtual boards in general, and Miro directly by scientists in the field of pedagogy. The Miro online board is a shareware digital tool for real-time cooperative interaction. However, there is still not enough published material that would highlight the practice of using the Miro virtual board for classes in institutions of higher education, namely for the training of philologists and translators. The purpose of this scientific material is to highlight possible effective ways of integrating the Miro board into the process of training translators and linguists.

The main complications of conducting online classes for translation students are the impossibility of the teacher ensuring the authenticity of each student's work on the translation task without the use of auxiliary digital translation tools and the impossibility of checking the translation results of a certain student in an effective and qualitative comparison with the results of all other students in the group.

These problems in a practical session of "theory and practice of translation", "translation practice", "literary translation", "translation editing" etc. can be easily solved by using the Miro board. For this, the teacher needs to act as follows:

1. Share a link to a certain Miro board with a group of students and make sure that all of them are present, that the functionality and tools of the board are accessible and understandable to them.
2. Post or present an already posted task for translation (text), conduct the necessary briefing, possibly conduct a translation analysis, specify the essence of the task and specify the time frame for its completion.
3. Students can simultaneously create their answers to the task, namely write their translations in individual text boxes on the board. The whiteboard tools allow students to use formatting and color highlighting of their work/answers. At the same time, the teacher can ensure that the students write and create their own translations, which limits their use of machine translation tools.
4. Checking the results of students' work can be done in a more diversified way. For instance, students can perform a pair check, generate the optimal version of the translation after a collective discussion in a separate text box, highlight failures and errors in translations using formatting or otherwise evaluate their own results of the task, draw certain conclusions, or receive feedback from the teacher.

The Miro virtual whiteboard is one of the most advanced tools of its kind with a wide range of functionality and tools. Using it for the practical training of translation students seems promising, expedient and effective; increases students' interest and involvement in the educational process, personal motivation and effectiveness of their translation activities.

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### **EDUCATION AFTER THE WAR**

The functioning of the education system under martial law is characterised by an intensive search for new approaches to teaching, innovative forms of organising the educational process, and effective pedagogical and information technologies. The education system has adapted well enough to the war. Before that, Covid-19 helped to quickly move to online learning. A lot of institutions operating in the rear regions joined internal mobility programmes and invited students to study there.

Both during and after the war, the main task of the education sector is and will be to ensure the quality of education at all levels. Therefore, it is quite natural to conduct research in education and implement its results in practice, introduce innovative technologies, provide educational institutions with new teaching aids, scientific, methodological and educational literature. An essential component of experimental activities is continuous monitoring of their results.

Despite the challenging conditions in which our country is today, innovative and experimental activities in the education system continue, resulting in new pedagogical thinking, new pedagogical ideas, forms of education and models of organising the educational process.

The priority task of educators in wartime is to assume responsibility for finding solutions to socio-cultural and socio-economic problems, primarily by mobilising human resources, improving the quality of human capital that is tempered by university schools, preserving the best traditions of training highly qualified researchers, and shaping the values of the younger generation of Ukrainians.

The country is facing a number of complex mental, spiritual, and ideological problems, including their solution in the field of human development in educational institutions, which is the main coordinate system for the formation of a true Ukrainian society on the path to European recognition.

Higher education institutions need to prepare for the return of offline learning, an issue that is currently being discussed everywhere. In winter, we need to make the maximum possible pause due to energy shortages. We need to make the most of the warm season for learning. At least in some parts of Ukraine, there are prerequisites for a gradual and phased return to offline learning, taking into account security measures. Online should not stay with us forever.

It is difficult to overcome the psychological problem, time is running out, and we cannot return to the productivity we had before the full-scale war. We need to find the strength to move forward. Few would deny that Ukrainian education needs to change. The next stage of reforms will affect the entire sector, from kindergarten to postgraduate studies. The prospect of joining the EU, as well as the generosity of donor support that can be counted on after the victory, offers a chance for a meaningful leap forward. But this requires a consensus on what the system we are building should look like.

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**THE GENOCIDE OF THE CRIMEAN TATAR PEOPLE IN THE  
AUTOBIOGRAPHICAL NOVEL BY SHAMIL ALYADIN  
"I AM YOUR KING AND GOD"**

The **purpose** of the abstract is to analyse the depiction of the deportation of Crimean Tatars in Shamil Alyadin's autobiographical novel "I Am Your King and God" and to describe the specific role of the narrator in the work.

**Results.** Ukrainians have been living alongside Crimean Tatars for almost 800 years, but the literature of this indigenous people remains little known and fragmentarily studied. This fact is primarily due to the fact that the Soviet authorities intended to wipe the Crimeans off the face of the earth, both literally and figuratively. Data on the genocide was classified as secret for many years. Any attempts to disseminate truthful information were punishable by physical elimination.

However, the voice of people who were unjustly punished cannot be silenced and the topic of deportation is reflected in numerous literary works.

Shamil Alyadin is one of the most prominent Crimean writers. Being a realist writer, Shamil Alyadin created a chronicle of the oppressed people, depicting customs and traditions, using the native language, objectively describing historical events.

The autobiographical novel "I Am Your King and God" was written a year before the author's death, so we assume that the writer was trying to summarise and reflect on his own tragic experience.

Having analysed the textual material, we conclude that the protagonist is an expression of the author's thoughts on two planes: documentary and ideological. The documentary nature of the narrator's image is manifested through the preservation of writer's and his family's names; in the clear delineation of time and space; through the transfer of Shamil Alyadin's biographical data to the protagonist. By presenting the events in the most realistic way possible, the author acts as a kind of chronicler of the Crimean Tatar people, who need to tell the world the truth about the genocide committed against them.

On the ideological plane, we see a crisis in the narrator's worldview, as he goes from being a devotee of Soviet ideals to a tireless fighter for justice for his people. Step by step, we trace the changes in the protagonist's beliefs, and perceive his fate as the fate of all Crimean Tatars. Shamil Alyadin portrayed the narrator in such a way that every Crimean could recognise himself in him.

The story "I Am Your King and God" clearly identifies the fundamental character traits of the Crimean Tatars: unity, courage, diligence, sense of self-respect, belief in justice and love for Crimea.

**Conclusions.** The novel "I Am Your King and God" by Shamil Alyadin is a chronicle not only of the author's life, but also an artistic and documentary depiction of the history of the entire Crimean Tatar people, for whom the primary goal is to convey the truth about the deportation and the opportunity to live freely in their homeland, Crimea.

### **THE CHALLENGES OF LEARNING AND TEACHING AFTER THE WAR**

The post-war period is a time not only for restoring what was destroyed, but also for rethinking, updating and creating new approaches to learning and development. A huge task falls on the shoulders of teachers - not only to restore the education system, but also to make it more effective, meeting new challenges and needs of society.

The main tasks of learning and teaching in the post-war period:

- The war led to the destruction of schools, universities, libraries and other educational institutions. The first priority is to restore these facilities to ensure access to education.
- Education after war should prepare people for future challenges, teach them to think critically, solve problems and adapt to changing conditions. The world is changing rapidly, and people must be ready for change. Education after the war must become a source of positive change and the key to a better future.
- Learning and teaching should include elements of psychosocial support to help people cope with their experiences and return to normal life. Teachers should not forget about the mental state of children. It is important to pay attention not only to the study of the subject, but also to the psychological state. This may include psychological help, counseling, stress management training, etc.
- After distance learning, teachers need not only to make up for lost time during distance learning, but also to help students adapt to new conditions. Teachers must create conditions for children to actively interact with each other, both in class and outside of school hours. This will help children not only better assimilate the material, but also develop communication skills. It is necessary to conduct interactive classes, creative tasks, games, quizzes, discussions, group projects and other forms of work, which will make it easier for children to perceive the material and adapt.
- War fuels hatred and enmity. Education should promote peace, tolerance and understanding among people. This contradiction is one of the main challenges facing humanity in the post-war period. Students must be taught to independently analyze information, distinguish facts from the opinions of others, and draw informed conclusions. In due time, teachers should guide and show by example how important it is to respect subordination, hear and understand other people, but at the same time, have their own opinion and the ability to analyze information. Before you jump to conclusions.

Education plays a vital role in building a peaceful and prosperous future. Therefore, in the post-war period, one of the main tasks will be to restore learning, which could be the key to creating a more just, peaceful and prosperous future after the war.

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### **FUNCTIONAL TRAINING AS A MEANS OF DEVELOPING PHYSICAL ABILITIES IN SINGLE COMBATS**

**Objective.** The search for new methods and means of training athletes in martial arts is an important problem in today's conditions. Therefore, the purpose of the study is to study the use of functional training as a means of developing the physical abilities of martial arts.

**Results.** The training process in martial arts today is significantly different from the classical approaches due to the integration of new methods that increase the effectiveness of training athletes. Today there is great competition among athletes in martial arts. Therefore, there is a need to find and implement innovative training methods to achieve results. An important component of training is a combination of physical, psychological, tactical and technical aspects. This ensures comprehensive readiness of athletes for competition. Modern training is based on the development of endurance, strength, flexibility and coordination through functional exercises that simulate combat situations.

Functional training is an important tool for the development of physical abilities in various types of martial arts, since it is focused on preparing the body for real movements and situations that may arise during combat. The main purpose of functional training is to increase the overall physical fitness and specific skills necessary for successful combat.

Functional training involves several muscle groups at the same time, which contributes to better coordination of movements, where each movement usually requires synchronous work of many muscles. In single combats, you must have enough strength to perform both short intense movements (blows or throws) and long endurance for multi-round battles. Functional exercises typically mimic movements performed during combat, helping to develop specific endurance and strength. Flexibility and mobility are important abilities for avoiding attacks, making throws or getting out of the grip. Functional training exercises help to develop these qualities with the help of dynamic stretches, mobile exercises and yoga elements.

An important component of training fighters is the speed of reaction and explosive force for punches or throws. Functional training includes exercises for speed-strength training, such as plyometry or exercises with weights that help increase explosive power. Functional training is easy to adapt to the specific requirements of different types of martial arts (boxing, judo, mixed martial arts, etc.). It may include exercises that mimic specific actions or techniques used in a given sport.

**Conclusion.** So, functional training is a great way to comprehensively influence the development of physical qualities of fighters, which allows them to be more hardy, fast and strong in training and competitive activities.

**TEACHING STYLISTICS TO UNIVERSITY STUDENTS  
BASED ON LITERARY TEXTS**

Stylistics is a branch of linguistics that studies the functional styles and language devices a given style uses. Since poor knowledge of stylistic norms is one of the main reasons for a significant number of stylistic errors in students' oral and written works, finding ways to improve their stylistic training is one of the essential tasks of teaching foreign languages, so the goal of studying stylistics by university students is to master the stylistic norms of a foreign language, acquire knowledge about the features of functional styles, and develop the skills to select stylistic resources according to the communication situation.

Stylistic skills are developed through basic styles of speech, such as scientific, journalistic, official business, literary, and colloquial, with characteristic language resources. Such skills imply the ability to clearly and distinctly express one's thoughts and emotions, adequately use various semantic, stylistic, orthoepic, and grammatical means of language, and select language resources by the situation.

Stylistics studies not only different styles of speech but also the individual styles of various writers and the expressive means of language they use in their works. For more effective acquisition of a foreign language and development of the general culture of students, the socio-cultural component of a foreign language is essential, provided mainly by reading fiction in a foreign language. By reading stories and excerpts from novels by famous writers, students deepen their knowledge of the language, develop artistic taste, learn to analyse and generalise what they have read, and argue their point of view.

The goal of the stylistics course at the university, based on a variety of literary texts such as novels, poems, and plays, is to introduce students to the individual style of the writer, to cultivate the need to read and study literature, to develop respect for the literary language and adherence to the culture of speech.

We develop students' stylistic skills through systematic practice in stylistic analysis, accessible explanations of stylistic devices by the teacher, and a skilful selection of exercises for stylistic text analysis.

The usage of the theory of stylistic analysis in teaching a foreign language and literature can effectively improve students' ability to use language in practice. In teaching English based on stylistic analysis, we organize teaching by combining reading materials with their analysis at the phonetic, lexical, syntactic, grammatical, context and discourse levels.

Reading literary texts creates a space for discussion between the teacher and students or between the students. It allows students to analyse and interpret the author's thoughts, express their point of view, and predict the story's ending using the acquired stylistic skills. All this increases students' motivation to study a foreign language and expands their general cultural horizons.

Literary texts, which are rich and varied, can be used to evoke a wide range of responses in students, and to help develop their analytical skills and critical thinking.

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**THE PROJECT: «TEACH IT FORWARD:  
LESSONS BASED ON CHILDREN'S SCENARIOS»**

"Do you want to change the world? Start with yourself."

— Mahatma Gandhi

"Do you want to change the world? First, change yourself, and then teach others."

— Olga and the Team

Project Idea

The core concept of the project is that children conduct lessons based on their own scenarios. Following this, the teacher conducts the same lesson according to the child's script. This sequence continues, with students conducting lessons based on their peers' scenarios, creating a chain reaction.

The inspiration for this innovative approach emerged from the students themselves. At the end of the school year, during the planning of a recreational week at the school camp, the children proposed conducting unconventional lessons that are not part of the standard school curriculum. They suggested topics such as "Bookkeeping", "Let's Save the Animals", "Handmade Games", "Delicious Modeling", "Dream Lessons", "Everything about Panda", and "Axolotls", among others.

While student-led lessons are not new, especially for our school, the novelty of this project lies in its format. After a child or a small group conducts a lesson, the teacher then repeats the lesson according to the child's scenario, acknowledging the student author and their class. Following this, another child volunteers to teach their own lesson, and the teacher repeats the process. This creates a continuous cycle of student-teacher collaboration.

Main goal of the project. The goal of the project is to foster a Student-Teacher Partnership aimed at improving the ecological situation.

Project objectives. Strengthening the partnership between students, teachers, and parents by addressing environmental issues. Providing education that incorporates elements of ecological awareness and problem-solving for urgent environmental concerns. Increasing student engagement and active participation in class activities.

Results. Students successfully conducted lessons based on their scenarios. For example, Alyona Popova, a 6th-grade student, taught bookkeeping to both 6th and 2nd-grade students. Similarly, Tikhon Trishin, a 2nd-grade student, conducted a natural science lesson for his peers. Inspired by these examples, other students began to offer their own lessons, including topics in natural science and psychology. Beyond the classroom, the students initiated projects such as feeding homeless animals and creating children's books. Project Expansion Currently, the project is in the scaling phase. Olga and the team are encouraging high school students to conduct lessons that incorporate elements of ecological education.

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### **KEY ELEMENTS OF HRYHIR TIUTIUNNYK’S LITERARY STYLE**

**Purpose.** Although Hryhir Tiutiunnyk’s works have often been analyzed in literary studies, there is currently no comprehensive analysis dedicated to the unique stylistic characteristics of his short prose. This highlights the relevance of our research.

**Results.** By examining the works of literary scholars such as O. Sokolov, A. Yesin, Ya. Elsberg, A. Kovalev, and others on the stylistic elements in Tiutiunnyk’s writing, we formulated a comprehensive system to define his individual style. This system builds upon previously identified elements while incorporating new aspects that we consider significant.

1. **Influencing Factors:** The stylistic features of Tiutiunnyk’s writing are shaped by the socio-political environment of his time and the stylistic trends that were emerging then.
2. **Stylistic Orientation:** An analysis of Tiutiunnyk’s creative goals shows his quest for artistic truth. He leaned towards modernism but was drawn to realism, which contributed to an internal conflict in his creative outlook.
3. **Genre Diversity:** His unique style – characterized by a concise narrative, concentrated imagery, and attention to detail – led him to favor short prose forms, such as novellas and short stories.
4. **Composition in Prose:** In analyzing his short prose, we found that many works follow a retrospective structure (e.g., “Three Cuckoos with a Bow”, “Baked Potato”, “At Dusk”), reflecting the synthetic nature of his stylistic direction and his preference for short prose genres.
5. **Autobiographical Elements:** Autobiographical reflections appear in much of Tiutiunnyk’s work. For instance, stories often feature a father figure lost to war or political repression, as seen in “Three Cuckoos with a Bow” and “Klymko”.
6. **Character Analysis:** The analysis covers male and female characters and explores gender aspects within his short prose.
7. **Language Style:** The language in his short prose has a neo-populist quality, with folk expressions, metaphors, and idioms adding richness to the narrative.

**Conclusions:** Analyzing Hryhir Tiutiunnyk’s stylistic approach in short prose reveals a cohesive, meaningful form of artistic expression. His style bridges reality, artistic content, worldview, and creative method.



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### **INTERACTIVE EXERCISES FOR THE DEVELOPMENT OF CREATIVE THINKING IN PRIMARY SCHOOL ENGLISH**

Interactive exercises are very important for developing the English language skills of primary school children. The aim of our work is to develop students' creative thinking through interactive exercises that stimulate imagination, expand language skills and improve English language proficiency.

The results of the research show that the use of interactive exercises in the English language classroom has positive Results. increasing language activity, strengthening teamwork, improving critical thinking, increasing motivation to learn English. Interactive exercises are part of a lesson and are designed to help students master the content and achieve specific learning outcomes.

We have used many different interactive exercises in the educational process at primary school. In this paper we describe the most useful interactive exercises.

1. We used "Story Cubes" to develop students' language skills. Pupils rolled dice with pictures and created stories based on random pictures. It promoted creativity as primary pupils had to improvise and use their imagination.
2. The next exercise "What if?" helped to improve the students' imagination. The teacher asked questions about fictional situations (e.g., "What if animals could talk?"). Pupils were asked to create short dialogues or stories that encouraged critical thinking.
3. In the role-play task, primary school pupils played different roles in real-life situations (e.g., in a shop or in class), which allowed them to practice English in a realistic context. The task not only improved their language skills but also increased their self-confidence.
4. The "Create a Monster" exercise aimed to draw and describe the students' imaginary creatures using new words and grammatical structures. This activity developed imagination and language skills as students learned to formulate descriptions.

In conclusion, it can be said that interactive exercises in the English classroom contribute to the development of creative thinking in primary school pupils, making learning more effective and interesting. The inclusion of such methods in the educational process contributes to the formation of competent and creative individuals ready to communicate in an English-speaking environment.

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**TOTALITARIANISM AS A GENRE FEATURE IN ZIRKA MENZATIUK’S  
NOVEL “HOW I WAS DESTROYING THE EMPIRE”**

The novel “*How I Was Destroying the Empire*” by Zirka Menzatyuk vividly and thoroughly depicts the life of an average Soviet teenager, highlighting the impact of the Soviet system on ordinary people’s lives. Through the character of the main heroine, Yarynka, who fights for her individuality, the author masterfully conveys an atmosphere of fear, ideological pressure, and control that characterizes the totalitarian regime. Using elements of realism, the author skillfully constructs a powerful image of a state where freedom of thought and individuality are suppressed, and every aspect of life is tightly regulated.

This paper **aims** to analyze the artistic portrayal of totalitarianism as a defining genre feature in Zirka Menzatyuk’s novel “*How I Was Destroying the Empire*”.

**Results.** Totalitarianism as a genre feature of the novel manifests on several levels:

- **The Atmosphere of Fear and Distrust:** The novel sustains a tense atmosphere throughout, where every word risks misinterpretation and any display of individuality may be perceived as a threat to the system. The characters live in constant fear of repression and denunciation, a hallmark of totalitarian regimes.
- **Deformation of Language and Thought:** The characters’ language is filled with slogans, clichés, and ideological phrases, highlighting the influence of propaganda on people’s consciousness and restricting their capacity for critical thought.
- **Ideological Propaganda:** Soviet ideology infiltrates every aspect of the characters’ lives. School lessons, radio broadcasts, newspapers – everything serves to shape a particular mindset in young people. The author skillfully depicts the manipulative nature of the ideological machine and its influence on the main character’s consciousness.
- **Control Over All Spheres of Life:** The state in the novel controls not only political life but also economic, social, and cultural spheres. Every aspect of the characters’ lives is subordinated to state agendas.

Special attention is given to the theme of personal dehumanization under totalitarian conditions depicted in the novel, where individuality is systematically suppressed. People are reduced to faceless agents of the party’s will. The author illustrates how totalitarianism erodes human relationships, fostering indifference among individuals. A central conflict in the novel is the clash between individualism and totalitarianism. The main character, Yarynka, fights to preserve her identity and resist the system’s pressure. Her struggle symbolizes humanity’s inherent drive for freedom and self-realization under a repressive regime.

**Conclusions.** The novel “*How I Was Destroying the Empire*” is more than just a book for young adults; it is a profound psychological portrait of a person striving to maintain their individuality under a totalitarian regime. The motif of totalitarianism runs throughout the entire plot, enabling us to view its artistic depiction as a defining genre feature of the work. This novel significantly contributes to Ukrainian literature for children and teenagers, as it helps young readers comprehend complex historical processes and promotes awareness to prevent the repetition of past mistakes.

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### **THE USE OF ARTIFICIAL INTELLIGENCE IN UKRAINIAN EDUCATIONAL INSTITUTIONS**

Today, the use of artificial intelligence in various fields is quite common, especially in scientific research. In our opinion, this should be done taking into account national and international norms.

This approach will help to ensure effective use of AI and minimize potential risks related to ethical aspects of research. The **purpose** of our research is to analyze the main advantages of using artificial intelligence in the education system.

**Results.** The impact of AI on the ethical aspects of scientific research in Ukrainian educational institutions is the subject of increasing attention and debate. Thus, these issues were considered in their works by domestic and foreign scientists, including: D. Abbadiya, I. Vizniuk, I. Zabara, T. Katkova, V. Kuzyomko, M. Marienko, M. Rogozha, O. Turuta, T. Yarovoi, S. Awasthi, Y. Soni and others.

Artificial intelligence is a branch of science and technology that deals with the development of computer systems that can perform tasks similar to those performed by humans and those that humans cannot perform. Among the main advantages of using artificial intelligence in the education system:

- adaptation to the needs of education seekers;
- setting up content and support;
- evaluation of different types of answers;
- feedback and error correction;
- adaptive learning;
- availability of education;
- use in preschool education;
- creation of educational content.

**Conclusions.** So, we see a wide range of opportunities that AI can open up to the educational sector, developing an individual approach to learning and contributing to the improvement of the educational process.

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### **CONCEPT OF “AMERICA” IN THE POLITICAL DISCOURSE OF THE U.S. ELECTIONS**

The concept of “*America*” plays a fundamental role in U.S. political discourse, particularly in the high-stakes context of election campaigns, where it functions as both a unifying symbol and a battleground of differing values and ideologies.

As a term, “*America*” transcends its geographical and national connotations to embody a rich tapestry of values, ideals, and aspirations that resonate deeply with the public. It represents not just the physical territory of the United States but the historical narrative, cultural identity, and collective memory of its people. This dual role – representing both a place and an ideal – grants “*America*” a unique rhetorical power in the hands of politicians seeking to establish emotional and ideological connections with the electorate.

In the hands of political figures, the concept of “*America*” becomes a powerful tool for shaping narratives about the nation’s identity and destiny. Politicians like Kamala Harris and Donald Trump each leverage “*America*” to project their visions for the future, drawing from their distinct ideological backgrounds to paint competing portraits of what the country should strive to be.

Harris and Trump, representing progressive and conservative paradigms respectively, utilize the symbolic resonance of “*America*” to appeal to different values, beliefs, and aspirations. Their rhetorical strategies reveal a complex array of meanings embedded within the term, each designed to resonate with specific segments of the electorate, while also invoking a sense of unity or distinction, pride, or ambition that aligns with their broader political agendas.

Harris’s use of “*America*” in her campaign discourse, for instance, often emphasizes ideals of inclusivity, justice, and opportunity. She frames the country as a place of boundless potential, where diversity and equality are not just aspirations but fundamental characteristics of the national identity. This portrayal positions “*America*” as a nation that evolves and progresses toward a more equitable future, with Harris calling on citizens to actively participate in realizing this vision through unity and mutual support. Her rhetoric frequently invokes the “*American Dream*”, suggesting that the country’s strength lies in its ability to provide fair chances for all its citizens to succeed, regardless of race, gender, or background. In her discourse, “*America*” becomes a collective endeavor, one in which all voices matter, and where the pursuit of social justice aligns with the nation’s foundational values.

On the other hand, Trump’s framing of “*America*” reflects a more traditionalist and nationalist perspective. In his rhetoric, “*America*” is synonymous with strength, independence, and a return to a perceived golden era of national greatness. His slogan “*Make America Great Again*” encapsulates this vision, tapping into a nostalgia for a time when, as he suggests, America was self-sufficient, respected globally, and unburdened by external dependencies. For Trump, “*America*” is not just a country; it is a fortress that must be defended from threats – be they economic, cultural, or geopolitical. His language often employs binaries like “*us versus them*” or “*strength versus weakness*”, appealing to voters

who prioritize security, sovereignty, and a strong, self-reliant identity for the nation. This framing positions "America" as an exclusive, exceptional entity, deserving of global leadership and respect, which resonates with a demographic that values national pride and autonomy above global integration or progressive reforms.

Through these contrasting portrayals, Harris and Trump reveal the flexibility of the "*America*" concept in political discourse. The differences in their rhetoric underscore the ways in which "*America*" can embody ideals as diverse as social justice, unity, and inclusivity on one end of the spectrum, and strength, independence, and sovereignty on the other. Their language choices, symbolism, and thematic emphases highlight how the concept can be mobilized to evoke either a sense of shared identity or division, aspiration or preservation. This divergence reflects broader ideological divides within the American political landscape, as each politician taps into the historical and cultural significance of "*America*" to inspire their base, emphasizing values that align with their political philosophies.

The strategic use of "*America*" in their campaign speeches thus serves a dual function. It not only solidifies the core identity of each politician's message but also acts as a lens through which voters can examine their own beliefs and values in relation to the broader national narrative. By aligning "*America*" with specific ideals, Harris and Trump mobilize emotional responses, stirring pride, hope, or a sense of duty in their listeners. The concept becomes a powerful motivator, guiding voters to either embrace a vision of progress and inclusivity or to champion resilience and traditional values.

Ultimately, examining the use of "*America*" in U.S. election discourse reveals how deeply ingrained this concept is in shaping national identity and influencing public perception. Each iteration of "*America*" presented by politicians is a strategic attempt to claim the moral and ideological high ground, engaging citizens in a debate not only about policies but about the soul and direction of the country itself. This multifaceted use of "*America*" underscores the role of political rhetoric in constructing collective identity, offering citizens varied pathways to imagine and aspire toward the future of their nation.

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**EXPERIENCE OF RESISTANCE AS GROUNDS FOR SOLIDARITY:  
HERTA MÜLLER WRITING IN SUPPORT OF UKRAINE’S FIGHT  
AGAINST RUSSIAN NEOIMPERIAL AGGRESSION**

Starting from her earliest works, Herta Müller has spoken out against oppression and totalitarian rule, as well as criticized oppressive relations at the personal level and inside family. She is a consistent critic of oppressive relations at various levels, not afraid to criticize the totalitarian forces. In her latest work, she extends her criticism to Vladimir Putin’s regime and Russia’s aggressive war of conquest in Ukraine. Drawing from her own experiences under the dictatorial regime of Nicolae Ceaușescu, Müller stands in solidarity with the Ukrainian people, unequivocally condemning Putin’s oppressive ideology and Russia’s belligerent actions. Müller recognizes the danger of totalitarianism that Putin’s regime presents not only to Ukraine but also to other neighboring Eastern European nations.

This paper considers Müller’s recent interviews, public speeches and writing, highlighting her vocal opposition to Putin’s neoimperial ambitions, totalitarianism, security forces rule, and reactionary ideology. Her fervent support for Ukraine’s fight against Russian aggression is driven by personal experience of how the powers that be and especially security forces of totalitarian states curtail freedoms in societies that they aim to subjugate. Müller supports Ukraine’s resistance to Russia because she recognizes that Putin’s regime opposes and seeks to subvert and destroy liberal democracies not only in Ukraine, but also in Eastern Europe.

By drawing parallels between totalitarianism in Ceaușescu’s Romania and Putin’s Russia, Müller positions herself to challenge the oppressive ideology that currently threatens to destroy Ukraine and challenge liberal democracy in Eastern Europe. Her texts provide insights into oppression in education, family life, personal relations, work, and art, and her complex understanding of the multi-faceted issue of oppression empower Herta Müller to champion freedom and resistance against social subjugation and illiberal state policies.

Through her poignant critique, Müller reveals the need for solidarity with people who are threatened by oppressive forces across the world, urging readers to confront and resist the multifarious manifestations of totalitarianism and oppression.

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**INTERNATIONAL EXPERIENCE OF LEGAL REGULATION OF  
ADMINISTRATIVE SERVICES PROVISION SYSTEM**

Purpose: to study the international experience of legal regulation of the system of providing administrative services, to study different models and approaches used in different countries, as well as to determine the possibilities of adapting successful practices to improve the system of providing administrative services in Ukraine. The article is aimed at the analysis of legal mechanisms, procedures and principles that ensure the efficiency, accessibility and transparency of the provision of administrative services, with the aim of improving the national system.

Administrative services are an important component of the state's interaction with citizens and businesses. The quality, availability and transparency of these services affect trust in public institutions and the effectiveness of governance. In various countries of the world, unique approaches to the legal regulation of this area have been implemented, which ensure the optimization of administrative procedures and are oriented towards the needs of users. EU countries are actively implementing "one-stop shop" principles, which simplify the interaction of citizens with the state. An example is: portals of electronic services (Estonia e-Estonia) — in Estonia, citizens receive most services in electronic format: from business registration to receiving social assistance. The system is one of the most integrated in the world, allowing to reduce the time of service provision.

France and its FranceConnect portals combine various government services into a single system where citizens can log in under a single account and access tax, health and other services. Legal regulation in the EU focuses on ensuring the digital rights of citizens (personal data protection in accordance with the GDPR) and simplifying procedures and reducing the administrative burden on business. In the USA and Canada, the main emphasis is on user-friendliness and transparency of government services. Service delivery platforms are integrated with local administrations, which allows for a quick response to the needs of citizens. In Canada, the "Service Canada" strategy is in place, which combines federal, provincial and local services on one platform, allowing citizens to receive the necessary assistance in the shortest possible time. Adaptation of international experience will allow Ukraine to improve the system of providing administrative services by expanding the functionality of the Diya platform and integrating new services based on the "single window" principle and implementing automated solutions for monitoring the quality-of-service provision and responding to complaints.

Therefore, international experience shows that effective legal regulation of the system of providing administrative services is based on transparency, accessibility and user orientation. Implementation of best practices from different countries can significantly improve the quality of public services in Ukraine, reduce bureaucratic barriers and increase citizens' trust in the authorities. For this, it is necessary to continue digitalization, improve the legal framework and ensure the integration of public services at all levels.

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### **FUNCTIONS OF UNIVERSITY’S ORGANIZATIONAL CULTURE**

One of the most important components of any university’s internal life is its organizational culture, the formation of which can provide absolutely new conditions for the university’s functioning as an independent competitive organization that ensures a modern level and high quality of training.

Organizational culture of the university is a system of values, socially progressive formal and informal rules and behavioral norms, traditions, individual and group interests, structure, leadership style, level of mutual cooperation and compatibility at the level of teacher-student, teacher-teacher, student-student, which provide constructive interaction in the team and further prospects for the development of the university.

Organizational culture in the university is related to understanding it as a complex social system. Therefore, it should also perform specific functions, in particular:

- Protective function is to create a barrier against unwanted external influences. It is implemented through various prohibitions and restrictive norms.
- Integrating function forms a sense of belonging to your university, pride in it.
- Regulatory function supports the necessary rules and norms of behavior at the levels of student-student and student-teacher, their relationships, contacts with the outside world, which ensures stability, reduces the risk of unnecessary conflicts.
- Adaptive function facilitates mutual adaptation of all members of the university community to each other and to the university as a whole. It is implemented through general norms of behavior, rites, rituals, by means of which students’ upbringing is also carried out.
- Orienting function directs the activities of the university and its participants in the necessary field.
- Motivational function creates the appropriate incentives for action. For instance, this can be achieved by including in the cultural context high goals that both students and teachers should strive for.
- University image forming function creates its image in the eyes of other people. This image is the result of people’s involuntary synthesis of certain elements of the organization’s culture into some sort of a single whole, which nevertheless has a huge impact on both the emotional and rational attitude towards it.

Thus, the importance of organizational culture in relation to the university is difficult to overestimate as it allows both teachers and students to identify themselves with the university, gives new students an opportunity to successfully adapt to the system of norms and values of the university as well as enables forming standards of conduct and responsibility to follow them.



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## **FEATURES OF HIGHER MEDICAL EDUCATION IN UKRAINE AFTER THE WAR**

The war in Ukraine shocked the entire world. Children, adolescents, and young people are experiencing strong anxiety and fear for their health and lives, as well as for the lives of their loved ones. Over the past two and a half years, they have been accompanied by unimaginably difficult experiences, new and previously unknown feelings and emotions, which they cannot endure without the help of adults, without risking their physical and mental health and sense of security. Every day, information about the threat is broadcast through all media channels, reaching both children and students from Ukraine, whether they are living in our country or studying remotely.

Providing real, supportive aid to all those who especially need the assistance of teachers, educators, psychologists, and counselors – whether in schools, higher educational institutions, or psychological-pedagogical consultations – has become an enormous challenge. Teaching staff in secondary schools and universities must be prepared and ready, both organizationally and psychologically, to take on new responsibilities and feel accountable to children and students in the context of the ongoing war in Ukraine.

In the post-war period, the conditions for practical and laboratory classes, medical and other supplementary activities must also be adjusted. A special approach is required for discussions with students, particularly about the war and its consequences. In higher medical education, it is essential to consider students' emotions, provide reliable information about the current situation related to the war and its effects in Ukraine, tailored to the age and comprehension abilities of the young person. It is important not to induce unnecessary fear or anxiety in students but to give them space to share their feelings and emotions. It will be helpful to suggest ways to cope with the psychologically challenging situations, burdens, and fears, and to closely observe students to provide them with psychological-pedagogical support.

The current situation (information about the political context, the sources of the conflict, and its consequences in the post-war period) should be presented using only verified sources of information. When talking to students, their need to express different emotions should be acknowledged, and their decision on whether to discuss the war should be respected. These conversations with students should reinforce their sense of security and inform them that Ukraine is receiving support from around the world, including humanitarian aid, aimed at rebuilding the country. These discussions should not evoke additional fear or anxiety but provide space for them to share their feelings and emotions. The medical university lecturer must be prepared to point out ways to overcome the psychological challenges, burdens, and fears.

The Role of Information and Communication Technology (ICT) in Enhancing Modern Education

Information and communication technology (ICT) tools have significant potential for organizing independent student work, providing access to a vast array of information resources, interactive materials, and opportunities for communication. The main resources that facilitate the mastery of a subject and the completion of independent tasks include the Internet as a source of information, which provides access to various materials, from text documents to video lessons and interactive courses. Search engines and educational platforms help students quickly find the necessary materials. Online courses and learning platforms, such as Coursera, Udemy, and Khan Academy, play an important role by allowing students to choose courses that match their interests and academic goals.

Open online courses (MOOCs) on platforms like edX or Coursera offer free university-level courses, allowing anyone interested to deepen their knowledge. Video lessons and webinars on platforms like YouTube help learners to better grasp specific topics, providing detailed information and a deeper understanding of issues. Interactive learning resources, such as virtual laboratories, educational games, and simulations, make the learning process more engaging and effective. Forums and communities allow students to exchange ideas, receive support from experts, and discuss academic questions.

ICT tools in modern education offer several key advantages that significantly improve the learning process. First and foremost, **accessibility** is one of the most important benefits. The Internet provides students with quick and easy access to a wide range of educational resources, allowing them to study any subject in depth, regardless of time or location. This removes many traditional barriers to education and opens up opportunities for lifelong learning. Second, **interactivity** plays a crucial role in making the learning process more engaging and dynamic. Students can actively participate in their education through interactive tools, simulations, and real-time feedback, which increases their motivation and interest in the subject matter.

Thus, ICT tools create a stimulating and effective learning environment, promoting a deeper understanding of the material and enhancing students' engagement. They offer flexible learning paths, allowing learners to tailor their education to personal needs and preferences, which is particularly valuable in today's fast-changing world. Moreover, the use of digital tools fosters the development of critical thinking, problem-solving, and digital literacy skills, which are essential for success in the modern workforce. By integrating multimedia resources and interactive elements, ICT can make complex subjects more accessible and engaging. Additionally, it supports collaborative learning by enabling students to connect with peers and experts globally, enhancing their educational experience and broadening their perspectives.

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### **DEVELOPMENT OF COGNITIVE INTEREST OF EDUCATORS AS A FACTOR OF MOTIVATION TO STUDY IN THE CONTEXT OF MODERN REALITIES**

The modern development of society requires a new level of education that meets international standards. The priority is universal values, and the center of the educational process should be the learner. Educators must create conditions for the development of children and the formation of their ability to independently interpret the world, revealing individual capabilities.

Quarantine restrictions, distance education during the war force to optimize the educational process and improve pedagogical technologies. Innovation in education was studied in detail in the works of such scientists as A. Aleksyuk, L. Danylenko, I. Zyazyun, O. Pehota, P. Sikorsky, S. Sysoeva. However, there is now a challenge to accumulate new practical experience regarding the organization of the educational process in modern conditions of digitalization, limitations of «live» communication. At the same time, it is important not only to use interesting methods, forms and means of learning, but also to form children's ability to organize independent educational activities. We believe that the key point should be the preservation of interest in learning, the presence of cognitive interest.

With the beginning of studies in an educational institution, the child has new conditions for the development of cognitive interests, which are formed through interaction with the surrounding world and people. The cognitive interest of education seekers consists in the desire to find new things in subjects and phenomena, which is accompanied by emotions and the will to learn. It is manifested in the active attitude of the student of education to the knowledge of the essence of objects and phenomena. The psychological and pedagogical nature of interest includes a volitional element and arises on the basis of needs. Over time, he himself can turn into a need. Therefore, the teacher's task is to create a need for knowledge in students.

Then interest arises, because the student gets pleasure from the learning process itself. The cognitive interest of education seekers consists of several components: emotional, intellectual, volitional, creative. It is important for the teacher to emphasize the development of all these components to ensure effective achievement of the result. The teacher's task is to awaken cognitive activity, curiosity and independence in students. Of course, the child's parents should help in this, who will support the child at home, stimulate the child's discipline and independence. And it is in such a tandem that a positive educational experience will be created, internal motivation and the ability for self-education will be formed.

Thanks to the approach that is oriented to the modern and actual needs of the child, built on a partnership with parents, in order to awaken and maintain cognitive interest, the child will be more interested in learning, not only through external stimuli, but also through internal motivation for learning and self-improvement. In this way, cognitive interest will become a driving force for obtaining education even in the conditions of modern challenges.

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### **LEARNING ENGLISH IN THE CONDITIONS OF WAR AND AFTER ITS END**

I am a student of Detached Structural Unit "Professional Pedagogical Specialty College of Oleksandr Dovzhenko Hlukhiv National Pedagogical University", and this year I will receive a teacher's diploma with the right to teach children English. I want to work with children, helping them develop, learn and explore the world around them.

However, the war significantly changed both my life and the lives of many children who, due to the threat of hostilities, were forced to leave their hometowns, in particular our town of Hlukhiv in the Sumy region. In this regard, education at our college has moved to a distance format, and a significant number of children have been evacuated to safer regions or abroad.

Last year, when the security situation in our city still allowed, I conducted practical classes with children at the Child Development Centre, which operates on the basis of the college. The English teacher and me helped children learn and develop through play activities, creative tasks, binary classes.

Our little students got acquainted with the basic vocabulary, learned commonly used English phrases, were involved in performing interactive exercises, mastered the language with the help of interesting video materials and sang English songs. This not only helped children gain new knowledge, but also helped develop their communication skills.

English-speaking communication is one of the most important skills that children master in the modern world. About 1.35 billion people in the world speak English, and in many countries, it is a compulsory subject in the preschool program. In some countries, children begin to learn English from the age of 3-4, which indicates the special importance of this language for the future.

Despite the difficulties that the war brings to our lives every day, getting an education remains a priority, and learning English is an important element for the further development of Ukrainian children. Mastering this language prepares them for a promising future, provides access to international educational resources, and helps them integrate into the global society.

Distance learning allows you to carry out the educational process and prepare the younger generation for future life challenges. But we really hope that the war will end soon, and we can work with the children offline.

English is not only a means of communication, but also the key to new opportunities in the world that will open up after the war. Knowledge of English will be an important advantage for the reconstruction of the country and its integration into the European community, so it is important to continue studying it today, despite the tense situation in Ukraine.

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### **COMPONENTS OF THE DIGITAL IMAGE OF A MODERN TEACHER**

Today, a teacher not only has to have traditional professional skills, but also be competent in using digital tools for learning, communication, and pedagogical improvement. The digital image of a teacher is becoming an integral part of his or her professional image, as it affects the interaction with students, parents, and colleagues.

**Objective.** The purpose of the study is to consider the key aspects and elements that form the digital image of a teacher in the modern educational environment.

**Results.** The digital image of a teacher is of particular importance in the modern information society, where interaction often takes place in the online environment. It is not only about how a teacher looks in the digital space, but also about how his or her professionalism and competence are perceived through his or her online activities.

It has several important and necessary parts that define professional competence and expertise in the online world. These components are the basis for a good and successful formation of a successful image of a teacher in the modern technological environment. Among them are the following: professional competence, digital literacy, communication skills, ethics and responsibility, personal brand.

All these components are crucial for the formation of a modern digital image of a teacher, in particular, because, first of all, it concerns professional authority. The digital image is the first impression that students, parents, and colleagues receive when interacting with a teacher.

Second, a positive digital image helps build trust. A teacher who actively uses modern digital tools and adheres to ethical standards online is more respected by colleagues and children. Third, it significantly improves the effectiveness of communication. Online platforms and social networks have become the main way of interaction. A well-designed and well-thought-out website can simplify this process, making communication more convenient, fast, and enjoyable.

**Conclusions.** Building a positive digital image helps to increase credibility, trust, and improve interaction in the educational environment. Digital tools allow teachers to be more modern, active in innovation and discovery, and capable of effective communication.

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## **RECOVERY AND INNOVATION: THE ROLE OF EDUCATION IN BUILDING A RESILIENT SOCIETY IN THE POST-WAR PERIOD**

The primary goal of this work is to define the role of education in post-war societal recovery and the implementation of innovative approaches for building a sustainable future. The focus is on adapting the education system to modern challenges and creating conditions for the development of youth capable of implementing positive societal changes. Special attention is given to pedagogical strategies that promote the formation of civic responsibility, critical thinking, innovative competencies in children and youth, as well as the preservation of national identity.

Reintegration through education. Education becomes the foundation for reintegrating the younger generation into society, which is especially important in the post-war period when children and adolescents need a stable social environment and support. Schools and educational institutions can become community centers, helping young people find meaning in the new reality.

Innovative approaches in education.

Post-war schools must implement new teaching methods, including digital technologies, interactive learning, and distance education methods. This fosters the development of critical thinking, collaboration skills, creative problem-solving, and adaptability. Innovative approaches also support the integration of children with special educational needs, which is crucial in the post-war era.

Patriotic and civic education. One of the key aspects of post-war recovery is patriotic education, which fosters a sense of responsibility for the country's and society's future. It is essential to develop in youth the ability to take initiative, actively participate in public life, engage in volunteer work, and contribute to the country's reconstruction.

Psychological support for students. Considerable attention is paid to creating a safe and supportive environment where children can receive the psychological help and support needed for emotional recovery and social adaptation after traumatic experiences. The involvement of qualified psychologists and social workers in the educational process is an important element of the recovery strategy.

Education plays a crucial role in building a resilient society after war. The implementation of innovative approaches to learning, the development of patriotism and civic competencies, support for social integration, and the provision of psychological assistance are necessary conditions for restoring social stability and sustainable development. Educational institutions become centers of social change where young people not only acquire knowledge but also gain valuable skills for actively participating in the country's reconstruction. The responsibility for developing a new generation of citizens ready to face modern challenges lies with an education system that must be as adaptive and open to change as possible.

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### **ECONOMIC APPROACHES TO PROMOTING A HEALTHY LIFESTYLE AS A FACTOR OF SOCIAL ACTIVITY AMONG THE POPULATION**

Health is the greatest value of life, occupying a significant place in the hierarchy of human needs. It is one of the most important components of human well-being and a leading condition for the successful social and economic development of a country. The health of the population is determined by a complex interplay of various factors, the most significant of which are: the size of a population's spending on healthcare, physical culture, and active recreation as a proportion of GDP; accessibility of primary healthcare, including preventive care; level of population immunization; nutritional status of the population, especially children, and the level of infant mortality; average life expectancy; hygienic literacy of the population.

World Health Organization (WHO) experts have determined the approximate ratio of various factors contributing to the health of a modern person, identifying four main derivatives: genetic factors – 20%; environmental conditions – 20%; medical care – 7-8%; and lifestyle – 53-52%. Thus, the most significant factor is lifestyle. It is a person's daily behavior and habits that determine the quality of life, level of well-being, presence or absence of diseases, and life expectancy. Unfortunately, in recent decades, under the marketing pressure of the market, people have increasingly adopted a lifestyle that is not beneficial to health but rather drives increased demand in the market. The results of the influence of such an economic model on a person have been a growth in the number of sedentary jobs, a shift to fast food, including unhealthy foods and semi-finished products, which lack the necessary nutrients in full. Such conditions lead to stress, which, in turn, contributes to the emergence of various diseases. Further technological progress may lead society from hard labor to another extreme – hyperkinesias.

A sedentary lifestyle with an abundance of fast food containing harmful substances is convenient. Even in the presence of diseases, a large percentage of citizens prefer simpler solutions: taking medications, surgeries, and questionable diets, rejecting the alternative of a healthy lifestyle. Other dangerous consequences may also develop which reduce the performance of citizens, affect reproductive abilities, and cause fundamental medical, social, and economic damage.

To maintain health, a golden mean is necessary: a person needs to independently give their body an optimal physical load through sports activities. However, the task of activating the population after comfortable conditions is difficult, and many people do not see the need to engage in sports.

The problem of activating the population, due to its social significance and high indirect economic effects, should be addressed at the state and local levels. Limited budget opportunities suggest the search for alternative sources of funding, in particular, through the mechanism of public-private partnership, as well as stimulating private investment. Through joint efforts of the state and commercial institutions, the number of people constantly engaged in sports and leading an active lifestyle will grow. Large-scale changes can only be made through the joint efforts of all structures and organizations aimed at increasing the number of healthy people.

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### **OPPORTUNITIES AND ADVANTAGES OF DIGITAL INNOVATIONS IN LANGUAGE EDUCATION**

The modern methodological field actively examines the digitalization of foreign language education, focusing on the implementation of digital technologies, the enhancement of educators' digital competence, potential challenges in using digital tools and resources, and related aspects of the language learning process. This research **aims** to provide a concise overview of innovative digital tools as supplementary aids (tools) in foreign language teaching.

**Results.** When analyzing the digitalization of foreign language education, it becomes clear that such tools stimulate student engagement and motivation, diversify traditional teaching methods, and support the development of linguistic and communicative skills. The adaptability of digital tools fosters a conducive environment for language learning, addressing learners' individual interests, while the interactive features encourage active participation, transforming students into active contributors to the learning process.

Today, innovative digital technologies, especially AI-powered resources (Chetveryk, & Veretiuk, 2024), are increasingly integrated into foreign language learning. Examples include chatbots like ChatGPT and grammar-checking systems like Grammarly. These tools are already in use to create learning materials, personalize courses and tests, and provide targeted instruction. Artificial intelligence systems can assess users' language skills, offer recommendations, and select exercises based on students' knowledge levels, focusing on specific gaps. The implementation of these technologies in education opens new opportunities for effective language acquisition and enables an individualized approach, which is crucial in modern contexts.

The benefits of digitalization in foreign language learning include the convenience and practicality of digital tools, easy access to resources, adaptability to learners' needs, and a wide range of information sources. Digital technologies enhance the development of listening and speaking skills through audio and video materials, creating an authentic learning environment. Interactive exercises and games further contribute to building foreign language competence. However, there are also drawbacks, such as the need to develop digital skills, concerns about privacy and security, risks to physical and mental health, potential dependency on technology, and reduced opportunities for social interaction.

**Conclusions.** Overall, the use of digital tools in foreign language learning remains relevant and promising. These tools have the potential to enhance learning outcomes, increase learner motivation, and streamline educators' work, ultimately supporting the development of foreign language communicative competence.

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### **THE SUPPORT OF CHILDREN WITH AUTISM SPECTRUM DISORDERS IN CONDITIONS OF WAR AND AFTER THE WARFARE**

Over the past few years, there has been a significant shift in the educational system in Ukraine during continuing warfare on its territories. This had one of the biggest impacts on children with autistic spectrum disorders (ASD). As a result, these children do not have the possibilities to fulfill their need for psychological and pedagogical support, proper education, and social interaction.

Admittedly, most of the territories, that are located close to the warfare zones undergo a lack of technical possibilities to provide safe and qualitative education, therefore the importance of this problem cannot be overstated in today's society of Ukrainian people.

Special education teachers emphasize that the behavior of children with ASD usually displays itself through the limitation of motor activity, sensory integration problems, sensory overloading, impaired social interaction, mutism, behavior disorders, echolalia, and catatonia. Autistic children in this position have a legal right to receive qualified assistance in innocuous conditions for their lives and obtain such kind of support that will help them as a part of correctional nurturing and tuition to improve and develop their cognitive, physical, emotional, and mental health.

**Result.** In light of the establishment of distance education, many parents and official guardians are inclined to provide permission for their children to attend the school facilities to receive the needed support. Still, in view of the fact that the territories closest to the war zones cannot produce safe shelters as parts of the didactical institutions, their desires cannot be implemented.

Special educators point out that on account of the constant influences of anxieties and stress, children with ASD became one of the most vulnerable groups susceptible to the increased risk of depression and psychogenic disorders. High-quality support for children with ASD has become non-viable which makes it necessary for parents and children to immigrate together to other cities or countries in search of a safer place and normal correctional support with nurturing and tuition for their children.

**Conclusions.** From these facts, one may conclude that in order to amend the general situation of difficulties in providing high-quality psychological and pedagogical support to children with ASD, cities located close to active hostilities should focus on building new safe places for education, deepening the already valid practice of creating underground schools and providing safe premises for conducting individual classes in conditions of the war and after the warfare. In this way, the states will be able to provide children with ASD with the necessary and legally established right to receive qualified support, which became almost impossible for children with ASD within distance education.

### **TRAINING TEACHERS FOR THE INCLUSIVE AND RESILIENT FUTURE**

After WWII the UN was formed to lead the cooperation in the advancement of global peace, security and human rights. The fear of the nuclear WWIII reduced expected global consolidated actions to half measures, thus the post-war world will need new values and principles of the development. The war has left a significant portion of Ukraine's population facing physical injuries, psychological trauma, destroyed or disrupted facilities and services, displacement and exclusion. Education, enhanced with rigorous research, should already start equipping the present generation with revised meta-skills. There is a pressing need for educators capable of addressing psychological, social, and academic needs of students in these contexts.

The study's purpose is to test the hypothesis that the application of inclusive practices contributes to building resilience. The paper analyses the impact of the military invasion and humanitarian crisis that deteriorate educational services for all categories of students, including those with disabilities, and explores the effective strategies for training pre-service teachers to foster inclusion and resilience in post-war educational systems. It also aims to develop a framework for integration of resilience-building techniques into teacher training programs.

Surveys on the inclusion and resilience awareness as well as focus group discussions with pre-service teachers in Ivano-Frankivsk college were conducted to gain insights into the contexts and expectations. Data gathered through evaluations of educators participating in workshops will be used in the development of the training programs focused on inclusive and resilience building practices. Introduction of narrative speech, art and performance techniques as well as practices of community leadership and inclusion of persons with disabilities, veterans and those affected by the war should be applied while developing models of assessment, monitoring and building resilience. The findings demonstrate that pre-service teachers who received targeted training showed significant improvements in their ability to create inclusive learning environments. They reported increased confidence in handling behavioral and emotional challenges. Additionally, the integration of resilience-building practices, such as peer support, stress and behavior management, may lead to improved classroom performance. The study revealed that educators expressed a need for ongoing professional support and mental health resources to sustain these efforts.

The study concludes that inclusive and resilience-building training of pre-service teachers is essential for the development of post-war society. The individual resilience consequently contributes to the community, national and global ones. While short-term training practices have proven effective, long-term strategies must be developed. Collaboration between educators, national and international organizations is necessary to establish comprehensive, sustainable training frameworks that address the challenges of post-war development. Thus, teacher training can provide invaluable resources for inclusive and resilient society.

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### **COMPUTER SIMULATION OF THE DURABILITY OF STRUCTURAL ELEMENTS WITH DEFECTS**

In recent years, there has been a trend towards extending the operational life of equipment that has been in use for a long time and has practically exhausted its normative resource. Due to the depletion of resources in hydro-turbine, petrochemical, and energy equipment at many industrial enterprises in Ukraine, the issue arises during modernization regarding the possibility of extending the service life of certain components and parts, and the need to replace morally and physically outdated equipment to ensure operational reliability during further use while meeting power and efficiency guarantees.

Since the equipment has been operating for a long time, its elements are often weakened by various types of micro-defects. The development of these defects can lead to failure or complete destruction of the studied structural element. This raises the question of estimating the time to failure of these elements under cyclical loads. The task of determining the durability of the structure, considering crack resistance, involves determining the time (number of cycles) after which a crack grows to a critical size, leading to destruction.

Usually, it is not known in advance what defects are present in the studied structural element, as micro-defects may not always be detected even by ultrasonic scanning methods. Therefore, the study of the influence of defects of different configurations and sizes on the durability of the structure is relevant, with the aim of identifying the most dangerous defects and determining the shortest time to failure. This time can serve both for assessing the remaining resource and for determining the intervals between maintenance periods of the equipment.

Elements of such equipment often have defects like cracks and micropores, and these defects often form clusters or chains. The mathematical models that describe these different tasks are differential equations or systems of elliptical differential equations. For their numerical solution, it is most effective to use potential theory methods, which reduce the problems in three-dimensional domains to singular and hypersingular integral equations, where the unknowns are distributed only along the boundary of the considered domain.

Therefore, improving numerical methods for solving singular and hypersingular integral equations and applying the developed methods to practical tasks, such as determining the durability of structural elements made of composite materials with crack-type defects, is relevant.

The study develops theory and method for calculating the durability of structural elements with cracks under cyclic loading. The calculation methodology is based on the application of potential theory methods and boundary integral equations. The proposed methodology allows for the assessment of the durability of hydro-turbine equipment elements subjected to cyclic loads and weakened by cracks.

## **PSYCHOLOGICAL CONDITIONS FOR THE FORMATION OF LINGUISTIC THINKING**

The development of linguistic thinking is an important part of the process of acquiring a foreign language. Linguistic thinking includes the ability to analyse linguistic units, understand grammatical and syntactic structures, and use them effectively in speech. Successful development of linguistic thinking depends on a number of psychological factors, such as cognitive strategies, motivation, self-regulation and emotional state of learners.

Analysis of the scientific literature has shown that linguistic thinking is a specific form of intellectual activity that includes the ability not only to learn language rules, but also to use them creatively in speech. This thinking is formed in the process of studying language structures and their practical application, and is closely related to the cognitive development of students.

The formation of learners' mental actions takes place in the process of mastering foreign language speech activity. In the process of learning a foreign language, learners not only reproduce language models but also perform various mental actions, such as analysis, synthesis, comparison and generalisation of language material. The formation of these actions occurs gradually, provided that active teaching methods aimed at stimulating thinking processes are used.

Characteristics of the specificity and content of the concept of linguistic thinking. Linguistic thinking covers such aspects as understanding the structure of the language system, the ability to analyse linguistic phenomena, and the ability to apply this knowledge in communication. The specificity of this type of thinking lies in its close connection with cognitive processes such as memory, attention, imagination and associative thinking.

For the effective development of linguistic thinking, psychological factors such as motivation, emotional state, social interaction and individual characteristics of learners are important. The creation of favourable psychological conditions, including a positive emotional climate in the classroom, a differentiated approach to students and active forms of interaction, contributes to the development of speech and cognitive abilities.

Thus, the formation of students' linguistic thinking in the process of mastering a foreign language is a complex process that depends on psychological and pedagogical factors. It is important not only to master the language norms but also to develop students' mental actions, motivation and cognitive activity, which contributes to the effective acquisition of a foreign language and the formation of linguistic competence.

The formation of learners' linguistic thinking depends on a number of psychological conditions, among which motivation, cognitive strategies, self-regulation and emotional state of learners are the most important. The use of these factors in the learning process allows creating optimal conditions for the development of linguistic thinking, which, in turn, contributes to more successful foreign language acquisition.

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### **USING PADLET BOARD WHILE STUDYING ONLINE**

Digital technologies are a significant part of the educational process. It is especially noticeable while studying online, which requires constant support of students' attention. One of the effective tools is the online board Padlet. It is a web service on which you can store various materials.

**Aim.** Justification of the effectiveness of using the Padlet online board while studying online.

**Results.** This board is efficient at all stages of classes and extracurricular activities. You can use the board during the lessons to explain new educational material (attach theoretical materials, diagrams, graphs, illustrations, mental maps, tables, etc.).

It is advisable to display various exercises and tasks, conduct surveys, etc. to form and consolidate skills and abilities.

For extracurricular work, it is used as a resource where a teacher can announce different activities and events. After holding or attending an event, participants can upload some photos, audio, and video of the events; creative works, drawings, and collages (for example, "Olympic Week", "Day of Ukrainian Literacy") creative and scientific projects, etc. to the board. It is also advisable to make announcements about the winners of contests, Olympiads, etc.

It is important to note that while using the board, students not only have the opportunity to upload their own materials and completed tasks but they are able to communicate with each other, arrange discussions, and exchange ideas as well.

The advantages of using this online board are:

- quick access and unlimited number of pages; the ability to save files of various types;
- storing of links to valuable resources (Google forms, Google documents, Google slides, sites, libraries, etc.);
- the board can be saved in multiple formats (PDF, Excel, CSV);
- having an address for each board, creating QR code that allows to be shared among students;
- the ability to edit, make corrections and comments on published materials.

The disadvantages: various technical problems with gadgets, poor Internet and limited time of working on computers.

**Conclusions.** As you can see, using the Padlet virtual interactive board helps to increase students' motivation in educational and extracurricular activities. With the help of visualization of materials and the involvement of students in the work, complex material is easier to learn.

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### **THE ROLE OF THE ESL TEACHER IN THE FORMATION OF STUDENTS' PERSONALITIES**

In the ever-evolving landscape of education, English as a Second Language (ESL) teachers play a pivotal role not only in language acquisition but also in the holistic development of their students' personalities. The *topicality* of the abstract is grounded on the fact that while the primary objective often focuses on teaching the nuances of the English language, it is essential to recognize the profound influence educators have on shaping learners' identities, social skills, and overall personal growth. Understanding the way and the degree to which teachers are able to form a student's personality would help to tune the studying process in order to combine the direct educational and upbringing goals as well as avoid the potential negative effects.

The *purpose* of the abstract is to look into the functions of an ESL teacher via literature analysis and personal observation and make assumptions as for their contribution into the process of studying. The functions comprise the following:

- ESL teachers create an inclusive and supportive classroom atmosphere that encourages students to express themselves freely. By promoting a culture of acceptance and understanding, teachers help students build confidence.
- Language is deeply intertwined with culture. ESL teachers often introduce students to various cultural contexts, helping them understand and appreciate diversity. This exposure promotes empathy and respect.
- Incorporating critical thinking activities into lessons enables students to analyze, evaluate, and make decisions based on language use. ESL teachers can encourage discussions on real-life issues, fostering independent thought and resilience – traits that contribute significantly to personal development.
- Effective communication is a core aspect of personality. ESL teachers focus on developing both verbal and non-verbal communication skills.
- The ESL classroom is an ideal space for discussing values such as honesty, integrity, and responsibility. Teachers can introduce this moral education and form a strong personal identity.
- An important aspect of personality formation is the mindset towards learning and self-improvement. ESL teachers inspire curiosity and a love for learning by making lessons engaging and relevant.

In *conclusion*, ESL teachers are instrumental in the formation of their students' personalities. Through fostering a supportive environment, promoting cultural awareness, developing critical thinking skills, enhancing communication, instilling values, and encouraging a lifelong love for learning, these educators do much more than teach a language. They lay the foundational stones of character, preparing students to thrive in a diverse and interconnected world. The impact of an ESL teacher extends beyond the classroom, influencing the very essence of who their students become as individuals.

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### **THE IMPACT OF THE WAR IN UKRAINE ON THE STRUCTURE OF CRIME**

War is a phenomenon that undoubtedly affects all aspects of social life, the state as a whole, and each individual separately. Crime as one of the aspects of social life is not an exception.

The structure of crime underwent significant changes with the onset of the war.

So, the **purpose** of our work is to find out the impact of the war in Ukraine on the structure of crime.

**Results.** There are obvious reasons for the increase in the number of specific weights of criminal offenses against the foundations of national security of Ukraine, criminal offenses against the established order of military service (military criminal offenses) and criminal offenses against peace, human security and international legal order (so-called war criminal offences).

At the same time, the number of some other types of criminal offenses is also increasing, for example, related to domestic violence and direct domestic violence (Article 126-1 of the Criminal Code of Ukraine).

In 2022, 3,360 criminal offenses related to domestic violence were committed, of which 1,498 were committed under Art. 126-1 of the Criminal Code of Ukraine, in 2023 – 6,805 and 2,705, respectively, and in 9 months of 2024 – already 7,267 and 2,386 against 4,800 and 2,432, respectively, in 2021 (Office).

The reason for this situation is, on the one hand, the obvious deterioration of the psycho-emotional state of the country's population and, naturally, the psychological climate in families, which, accordingly, definitely contributes to the perpetration of domestic violence.

On the other hand, the reason for the increase in the number of criminal offenses of the specified category is the more effective work of law enforcement authorities, namely: National Police of Ukraine, as a one whose investigators, in accordance with Art. 112 of the Criminal Procedure Code of Ukraine carry out pre-trial investigation of such crimes, to identify, fix and investigate criminal offenses of the specified category, given that for several years in a row the Prosecutor General has identified combating domestic violence as one of the priorities of the prosecutor's office as an authority that supervises compliance with laws by authorities conducting operational investigative activities, inquiries, pre-trial investigations (Article 25 of the Law of Ukraine "On the Prosecutor's Office") (Law, 2014).

Among other priority directions, the investigation of the crimes of the aggressor country remained; crimes against national security and defense; fight against corruption and organized crime and others (Office, 2024).

Also, among the reasons for the mentioned tendency to increase the number of criminal offenses of the corresponding category, we can mention the gradual overcoming of the so-called "victim complex" and, accordingly, the appeal of victims of violence to the competent authorities.

**Conclusions.** In our opinion, the activity of the state should be aimed primarily at preventing the committing crimes of the specified category. We think it will cannot do this without the involvement of professional psychologists.

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### **LINGUISTIC UNIVERSE OF YURIY IZDRYK**

Yuriy Izdryk's idiostyle is a unique system of artistic language that reflects his worldview, aesthetic principles, and inner experience. The individual language structure forms the unique space of the author's writing, which is characterized by intellectual depth, symbolism and unusual means of expression.

The artistic semantics of his works often combine the real world with metaphysical and abstract elements. Due to ambiguity, he creates texts that require detailed analysis and are important for understanding. Izdryk's philosophy often turns to the subconscious, where the boundaries between rational and irrational are blurred.

Yuriy Izdryk's works are a combination of various forms with an artistic language that combines elements of literature, philosophy and musical codes. Yuriy Izdryk experiments with various forms of language expression: from poetic images to fragmented prose constructions, creating the effect of a divided language space.

The author's texts are often filled with cultural and literary allusions that weave the works into a more intellectual context. Through numerous studies of intertextual connections in artistic texts, the author builds a multidimensional structure that requires readers not only to read carefully, but also to know the encoded information.

Izdryk's unique style is closely related to philosophical reflections on the nature of being, human essence and spiritual quests. With his unique linguistic form, he poses questions to readers about the nature of reality, the subjectivity of perception and the role of art in the knowledge of the world. One of the features of the texts is the constant play with language.

Yuriy Izdryk uses neologisms, paradoxes, linguistic puns, unusual syntactic constructions, which give his works an experimental character. Such a game not only expands the semantic boundaries of the text, but also creates an effect of uncertainty, when the content often remains hidden between the lines.

Yuriy Izdryk's idiostyle, with an emphasis on the semantics of his speech-making, has not been sufficiently studied in Ukrainian literature so far. The problem of studying the interaction of the language structure with the author's postmodern philosophy, which allows for a deeper disclosure of the author's worldview and his innovative approach to the construction of artistic reality and the role of semantic experiments in the formation of the content and aesthetic aspects of the works, is relevant in the modern aspect.

Our research can serve as a basis for further scientific explorations devoted to the idiostyle of other authors or the issue of artistic semantics of language creation.

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### **INTERNATIONAL EXPERIENCE OF USING AI IN TEACHING ENGLISH**

As the global language of communication, English is one of the most used languages for jobs, markets, tourism, discourse, and international interaction.

As While English is a highly desirable language to attain, there are a number of obstacles for learners to overcome such as insufficient input to the target language, limited opportunities for using English inside and outside the classroom etc.

Artificial intelligence (AI) is being used as a tool to support English language teaching and learning (ELT/L) that can provide new strategies and opportunities to overcome challenges and enhance learning of a foreign language.

Nowadays Artificial Intelligence (AI) has been increasingly integrated into English language teaching (ELT) all around the world. This integration of AI into the teaching process aims to enhance both teaching methods and learning experiences by using advanced technologies.

As we can see, AI studies in ELT are conducted worldwide, with significant contributions from various countries. AI tools are increasingly used across different educational levels, from primary schools to the adult education.

AI is applied in various aspects of ELT, that is speaking, writing, reading and listening. It helps to create adaptive learning pathways and supports self-regulation among learners. In some cases, AI tools can reduce learners' fear of speaking, provide personalized feedback, and offer opportunities for practice outside the classroom.

Despite its benefits, AI in ELT faces challenges such as technological limitations and the need for clear data privacy regulations. AI has the potential to revolutionize ELT by providing innovative solutions to traditional challenges.

However, ongoing research and development are essential to address the limitations and ensure ethical use of AI in education.

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### **USING AI CHATBOTS IN TEACHING ESP**

AI has indeed brought significant changes to the field of English Language Teaching (ELT), providing tools that enhance learning and teaching processes. For learners, AI-driven platforms offer personalized learning experiences, interactive language practice, and instant feedback. Tools such as chatbots, adaptive learning platforms, and AI-driven assessment systems tailor exercises and quizzes based on individual progress, making learning more efficient and engaging.

Rapid technological advancements play a significant and impactful role in English for Specific Purposes (ESP). They greatly contribute to creating dynamic, authentic environments that facilitate the development of diverse and engaging ESP projects, as well as the design of customized curricula. The increasing demand for English in specific contexts has driven the growth and importance of ESP across various fields.

The use of chatbots in language teaching and learning has been explored in numerous studies. A chatbot is a software application designed to mimic human conversation, either through voice commands, text-based interactions, or a combination of both. ChatGPT, for instance, can serve as an efficient and time-saving tool in multiple stages of teaching, including the preparation and delivery of lessons, as well as the evaluation of students' written assignments. The study conducted by Qasem F. et al. (2023) shows clearly that the use of chatbots acts well in enhancing and learning ESP vocabulary.

This suggests that ESP teachers should make use of chatbots applications and other digital and distance technology in teaching ESP vocabulary and in engaging ESP students in learning better. Moreover, Chatbots are designed to support students throughout their language-learning journey, offering personalized assistance and interactive practice opportunities. When students come across unfamiliar words or concepts, chatbots can offer explanations and examples to enhance their comprehension.

This functionality enables learners to progress at their own pace, receiving targeted support exactly when they require it. Chatbots provide a variety of teaching activities, including quizzes and games, to help students practice their language skills and reinforce their learning. These interactive activities make the learning process more engaging and effective.

To sum up, using chatbots offers a variety of opportunities for language learners as well as teachers.

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### **TEACHER CHARACTERISTICS ACCORDING TO CARL ROGERS**

In this study, the three conditions of Carl Rogers, the founder of person-centered psychotherapy, were transferred to the training process. Carl Ransom Rogers, an American psychologist, founded humanistic psychology and person-centered psychotherapy. He received the APA's 1956 Award for Distinguished Scientific Contributions for his pioneering research. The person-centered approach, which is Rogers' method of analyzing personality and interpersonal connections, has been widely used in a variety of contexts, including organizations, student-centered learning, psychotherapy and counseling, and other group settings. In recognition of his professional achievements, he was granted the 1972 APA Award for Distinguished Professional Contributions to Psychology.

Rogers (1957) states that there are three conditions in the client-counselor process. These are empathic understanding, unconditional acceptance and harmony. In the 21st century modern society, can the teacher-student relationship be carried out as a counselor-client relationship? The answer to this question was tried to be sought in this study. In today's society where computers and the internet are indispensable elements in our lives, it is very easy to access information. How teachers should develop a strategy in transferring information to students is still unanswered. Bullying, aggression, shyness, low self-esteem, lack of social skills, addiction negatively affect the lives of many students.

According to Carl Rogers, key characteristics of an effective teacher include:

1. **Authenticity:** Teachers should be genuine and open in their interactions with students.
2. **Empathy:** Showing understanding and compassion towards students' perspectives and feelings.
3. **Unconditional Positive Regard:** Accepting and respecting students without judgment.
4. **Congruence:** Alignment between a teacher's thoughts, feelings, and actions to create a consistent learning environment.
5. **Warmth:** Demonstrating care and approachability in teaching practices.

Unfortunately, the hot war continues always and everywhere. In the 21st century, we need teachers who have internalized the values of the world and can transfer them to their students, who are at peace with themselves, peace-loving, full of love, compassion, sharing and humanitarianism. Carl Rogers' humanity should be an example for all teachers.

In conclusion, empathy, unconditional acceptance and adaptation are very important for students to be effective, healthy and happy people in the future. It is recommended that future studies should focus on how to train empathic, unconditionally accepting and compliant teachers.

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## **COGNITIVE INTEREST FORMATION IN PRIMARY SCHOOL STUDENTS AS AN IMPORTANT COMPONENT OF AN EFFECTIVE EDUCATIONAL PROCESS**

The **purpose** of the paper is to emphasize the importance of developing cognitive interest in primary school students and outline strategies to boost learning engagement and lifelong motivation.

The formation of cognitive interest in primary school students is critical to successful learning, as this stage lays the foundation for personal development and learning skills. Cognitive interest contributes to better education and creates intrinsic motivation for independent learning, which is essential for developing an active and inquisitive personality.

**Research Results.** Cognitive interest is a child's natural activity manifesting in the desire to learn new things and solve problems. Engaged students learn better and develop general skills such as self-regulation, critical thinking, and information management that contribute to their future success. This identifies the relevance of the paper.

Ways to form cognitive interest can be divided into further categories such as:

**Interactive teaching methods:** The use of interactive approaches (work in pairs, groups, discussions, projects) allows students to interact with the material, stimulating thinking actively.

**Game technologies:** Didactic, role-playing games, quests, and contests help younger students better absorb information and develop cognitive and social skills.

**Creative tasks:** Tasks that arouse interest and stimulate innovative thinking help keep children engaged.

**Interdisciplinary approach:** Integrating knowledge from different disciplines allows students to see the practical application of learning topics.

**Positive emotional background:** Emotional support from the teacher contributes to a better perception of the material and engagement in learning.

**Individual approach:** Taking into account each child's interests, abilities, and learning pace to select appropriate tasks.

### **The role of the teacher:**

Primary school teachers are essential in sparking students' curiosity and fostering a love for learning. Beyond teaching content, they guide children through the discovery of new ideas, making learning engaging and enjoyable. By serving as role models, they demonstrate enthusiasm for knowledge and encourage critical thinking. Teachers also support students' social and emotional growth, creating a safe space where children learn to collaborate and develop valuable life skills. Ultimately, they lay the foundation for lifelong learning.

**Conclusion.** Thus, developing cognitive interest in primary school students is a complex process that requires an individual approach, creativity in teaching, and constant teacher support. This ensures not only academic success but also a sustainable motivation to learn throughout life.

## **TEACHING LITERATURE THROUGH CLIL: A CULTURAL CONTEXT**

The *CLIL* method, or *Content and Language Integrated Learning*, is an effective teaching approach that combines subject study (such as literature) with foreign language learning. This method enables learners to master subject content while also improving their language skills through practical, real-life tasks.

This paper **aims** to explore the potential of implementing CLIL elements in the study of literature.

**Results.** Literary works are more than just fictional texts; they also serve as “windows” into the cultural world in which they were created. The CLIL method enables students to explore this cultural context, studying the language, history, customs, and traditions of a people (Четверик, & Веретюк, 2024). Language, in turn, is essential for understanding literature. By learning the language, students can uncover the deeper meanings in a text, appreciate stylistic nuances, and recognize the author’s unique qualities. Thus, literature becomes a source of linguistic knowledge, providing a rich array of vocabulary, grammatical structures, and cultural references. Among the *core principles* for implementing the CLIL methodology in studying literature are the following:

- 1. Integration of content and language:** Students study literature through a foreign language, making the learning process more meaningful. Literary works become a tool for developing language skills rather than an end in themselves.
- 2. Cultural context:** Teaching literature through *CLIL* involves immersing students in the cultural context of the works. This includes analysing cultural aspects, historical background, and the work's impact on society.
- 3. Active learning:** Students engage in creative projects, discussions, and research, which fosters critical thinking and communication skills. For example, when analysing world literature, students can create their own interpretations or adaptations.
- 4. Adaptation of materials:** It is essential to choose texts and assignments that match students’ proficiency in both literature and the foreign language. This ensures the material is accessible and encourages active engagement in learning.

*Advantages of using CLIL in teaching literature: increased motivation* (CLIL allows students to see the practical use of language through literature, which boosts their interest in learning); *enhanced communication skills* (by integrating language with subject knowledge, students improve their communication skills in both their native and foreign languages); *development of intercultural competence* (studying literature from different cultures helps students understand diverse worldviews and values).

**Conclusions.** The *CLIL* method is a powerful tool for teaching literature within a cultural context. It promotes a deeper understanding of texts while enhancing learners' language and communication skills. This approach can significantly improve teaching effectiveness and boost students' interest in learning foreign languages.

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### **CHALLENGERS FOR EDUCATION OF SOCIAL AND HOSPITAL WORKERS IN UKRAINE**

In 2022, with the onset of the full-scale war between Ukraine and Russia, the demand for social work and humanitarian assistance for critically ill individuals significantly increased. Estimates suggest that between 300,000 and 1.5 million people in Ukraine required palliative and hospice care in 2021-2022. Consequently, in following years, the scope of activities for public organizations expanded rather than diminished.

**The purpose** of this paper is to present the findings of a qualitative study conducted between March 2022 and April 2024. The research aimed to explore the role of public organizations in providing social work for the seriously ill and to identify the educational needs that arose as a result. The key research questions were: "What role do public organizations play in social work with critically ill patients in 2022-2024?" and "How has the war influenced the educational needs in the field of palliative care in Ukraine?"

**The results.** The findings indicate that at least seven non-profit organizations were active in palliative care in 2022, with varied activities including providing essential goods, food, hygiene products, and psychosocial support. However, hospice social work in Ukraine remains underdeveloped, particularly in areas such as volunteer coordination, bereavement support, and family care. Two organizations, "LaVita" and "Svoi", focused on individualized social assistance, while Caritas Ukraine and other groups implemented broader projects in palliative care, but gaps in interdisciplinary collaboration were noted.

The educational component is critical for all organizations involved in palliative and hospice care. The All-Ukrainian Association of Palliative and Hospice Care emphasizes the need for comprehensive educational programs. These should target both social work students and professionals by integrating medical, clinical-psychological, and social aspects of care for the seriously ill. Additionally, medical students and healthcare professionals require training in social competencies to effectively support patients and their families. The study revealed that healthcare workers in Ukraine lack necessary skills related to social work and socio-psychological care, further highlighting the need for interdisciplinary training.

In **conclusion**, while public organizations provide essential services in palliative care, the lack of coordination and comprehensive educational programs remains a critical issue. Addressing these educational needs is essential for improving palliative care and interdisciplinary collaboration in Ukraine, particularly in the context of ongoing war.

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### **ORGANIZATION OF INCLUSIVE EDUCATION IN A PRESCHOOL EDUCATION INSTITUTION**

Modern, relevant research in the field of inclusive learning in preschool education institutions is aimed at identifying and developing effective approaches and strategies for their implementation and improvement. Such studies are designed to provide a better understanding of the theoretical foundations of inclusive education and the factors that affect its successful implementation in the conditions of preschool education.

We believe that the ability to organize inclusive education in preschool institutions is based on the principles of: equality, non-discrimination, flexibility and individualization of the approach, which include additional aspects that meet the needs of young children. This includes the integration of special educational methods and individual development programs, the involvement of specialists of various profiles, such as speech therapists, psychologists and rehabilitation specialists, as well as the creation of a safe and stimulating environment that promotes socialization and interaction between all children. The implementation of these features requires a comprehensive approach that covers the physical, emotional and social spheres of child development, aimed at achieving optimal educational results for each child.

The organization of inclusive education in preschool institutions is based on several key approaches. The first is the creation of an adaptive learning environment that ensures the physical, social and educational accessibility of all children. This includes adapting facilities, learning materials and equipment to the needs of children with special needs. The second approach focuses on differentiated learning, which allows each child to develop according to their individual abilities and needs. The third approach consists in actively involving parents in the educational process through consultations, workshops and seminars, which help them better understand the principles of inclusive education and support their children more effectively.

Taking into account the essence of inclusive education and its basic principles, as well as the peculiarities of its organization in preschool education, we can conclude about the significant potential of such an approach for the formation of an inclusive society, where every child has the opportunity to realize his potential and become a full-fledged member of the community. At the same time, the effective implementation of inclusive education requires significant efforts on the part of state bodies, educational institutions, parents and the entire society

The prospects for our further research and development of the organization of inclusive education are the implementation of innovative technologies and methods, the active involvement of parents and the community in the educational process, and the creation of effective monitoring and evaluation systems that will allow timely identification and elimination of problems.



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### **GROTESQUE IN THE SHORT STORIES OF EDGAR ALLAN POE**

The grotesque in the artistic world of E. Poe is inscribed in a certain artistic and theoretical context of Romantic art, which gives an independent, new, and deep concept of the grotesque phenomenon. The value and peculiarity of the Romantic perception of the grotesque lie in a complex synthesis of philosophical, artistic, and literary approaches that gave an original theoretical interpretation and artistic realization of grotesque forms in relation to previous eras and in relation to the Romantics to each other.

In the short stories of E. Poe, the grotesque remains the artistic dominant, largely determining the semantic and poetic originality of his works. Calling the collection of his short stories "Grotesques and Arabesques", E. Poe sought to comprehend the essence of the forms he created and, under the word "grotesque", understood hyperbolization. The ability to EXPRESS becomes, thus, the highest criterion of the value of the artist, and the grotesque is the most visible form of embodiment of God's gift in art. The more bizarre the pictures, the greater the gift of the artist, the closer they are to the real hieroglyphic world, the more accurately the truth and essence of the thing are captured.

In the poetics of the grotesque by Edgar Allan Poe, we can emphasize several main points:

The grotesque is the oldest way of organizing the image, regardless of the degree of its awareness as a technique;

As a technique, it has independence and may not depend on fiction;

The grotesque has a special structure (illogical connection of heterogeneous elements in a single whole or unnatural disintegration of it) and should not be mixed with hyperbolization, contrasts, etc., which are also independent techniques;

The grotesque can be implemented at any of the levels of the work;

Its participation in the phenomena of duality, personification, and so on.

The practical realization of the grotesque is diverse and gravitates towards independent authorial poles and the expression of individual philosophical, mystical, and psychological concepts.

The grotesque is an important aspect of Poe's work, demonstrating his skill in combining various literary techniques. The use of the grotesque allows Poe to create unique works that simultaneously entertain, frighten, and make you think.

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### **NATIONAL AND FOREIGN EXPERIENCE IN THE DEVELOPMENT OF DISTANCE TECHNOLOGIES IN ADULT EDUCATION**

Distance education is a critical tool for ensuring the continuity of the educational process in the face of modern challenges, such as pandemics, conflicts or other crisis situations. For students, this is an opportunity to study outside the educational institution at any convenient time, in any part of the globe.

The purpose of the abstracts is to analyze national and foreign experience in the development of distance technologies in adult education, as well as to identify effective technologies for improving the adult education system.

In Ukraine, distance technologies in adult education are actively developing with an emphasis on advanced training, professional retraining and self-education. Ukrainian organizations actively cooperate with international partners to exchange experience and introduce new approaches in distance education of adults. The main advantages of foreign models of distance learning are a high level of accessibility, interactivity and personalization of the educational process with the help of artificial intelligence and adaptive technologies. An important element of foreign experience is active support from the state and employers who encourage employees to continue education.

The distance form of education requires teachers to possess distance learning technologies, so it is important to analyze these technologies and their tools.

The technologies of distance learning are implemented due to:

- online platforms (for example, Moodle, Google Classroom) where students can receive educational materials, complete assignments and communicate with teachers;
- online courses (MOOCs) are open mass online courses that allow anyone to receive education in various fields;
- video conferences (Zoom, Microsoft Teams, Google Meet) for conducting lectures, seminars and consultations in real time;
- interactive educational materials (online tests, video lessons, simulations), which allow to increase the efficiency of knowledge acquisition;
- mobile learning applications that allow students to access materials from anywhere.

Therefore, the experience of the development of distance technologies in adult education in Ukraine and worldwide demonstrates a significant potential for improving the quality of education and access to education. Foreign countries have more experience and infrastructural capabilities for the development of distance education for adults, while in Ukraine this process is still at the stage of active development. Distance learning technologies make it possible to study from anywhere in the world, provide flexibility in time and often allow students to adapt the learning process to their own schedule, which is especially relevant for adults.

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### **PREPARING FOR CIVIL SECURITY CHALLENGES IN POST-CONFLICT ENVIRONMENTS**

In the post-war period, the education and training of civil security specialists undergo fundamental changes due to new challenges facing society. Military conflicts lead not only to the destruction of physical infrastructure, but also to significant socio-economic changes that require new approaches to education. The main aspects are the adaptation of training programs to new threats and the development of skills necessary to ensure security in unstable conditions. One of the key areas is the change in priorities in the training of specialists. Traditional training programs, previously focused on responding to natural or man-made disasters, must now take into account new challenges. This applies, in particular, to the management of mass movements of people, work in the aftermath of military actions, the restoration of infrastructure and security management in an unstable society. Specialists must not only have technical knowledge, but also be ready to work in a crisis, when resources are limited, and decisions must be made quickly and effectively. An important role in training is played by the integration of real-life experience of military conflicts into training programs. Teaching should be based on real cases and examples that enable students to understand how to act in extreme situations. War provides invaluable experience in updating emergency response standards. Real cases help to learn the lessons of the past and better prepare for future challenges. Students should understand how to work in conditions where their actions can have a direct impact on people's lives and the safety of the community. This involves not only developing technical skills, but also the ability to work under pressure and make decisions in critical situations. In the context of training, it is important to develop critical thinking and adaptation skills. The post-war world is unpredictable, so civil security specialists must be prepared to act in conditions of rapid change. This requires students to be able to quickly adapt to new conditions, analyze the situation and make decisions that take into account all possible risks. Work in the field of civil security is often associated with stressful situations, so students must be prepared to work under emotional pressure and have tools to manage stress. In the conditions of the post-war world, training in providing psychological assistance to victims, as well as the development of self-control skills and management of stressful situations, is especially relevant. Training programs should take into account new challenges and threats, integrate real experience of conflicts and develop skills necessary for working in crisis conditions.

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### **EDUCATION IN THE FIELD OF CIVIL SECURITY IN THE POST-WAR PERIOD**

The post-war light reveals new opportunities until the start of civil safety. The area of security is of utmost importance in the processes of obtaining and protecting marriage from new positions. Let's look at the key aspects of this.

First of all, the role of civil security in the future after the war is important. Security specialists are responsible for innovating infrastructure, maintaining law and order, and promoting the development of a stable marriage. The stench is responsible for protecting people, communities and strategic objects from new threats.

Another aspect is the prevention and management of threats, which become more varied in the final hour. This includes natural disasters, man-made accidents and social conflicts. New technologies and scientific approaches can be integrated into basic programs for effective training of facists.

The third important point is the management of humanitarian crises. After the war, especially during periods of massive population movements, there is a growing need for the Swedish response to coordinate efforts to help communities protect the rights of affected groups to ensure their basic needs. The fourth aspect is the value of innovation.

The economy must embrace new technologies and data that help assess risks and manage crises. An interdisciplinary approach, which combines knowledge from various fields - law, social work, psychology and technology - will become key for the effective preparation of facists. The fifth point is global intelligence and exchange of information.

The post-war light encourages the international exchange of knowledge and practices that will help create sustainable systems of civil security. It is important to take note of the evidence from other countries that have already gone through similar trials and successfully restored their security.

And, you decide, it is important to remember about moral integrity and ethics. Civil security specialists may work not only with physical threats, but with people who preserve their rights, life and life. This requires a deep humanistic approach and an understanding of the moral aspects of the profession.

These aspects form the foundation for the beginning and implementation of civil safety in the world after the war, preparing a new generation of professionals who will respond to the calls of reality.

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### **STUDYING THE MOTIVATION OF MIDDLE SCHOOL STUDENTS TO ENGAGE IN VARIOUS TYPES OF FITNESS**

An analysis of various sources shows that modern schoolchildren are paying less and less attention to their physical improvement. Previously, this was due to quarantine, which limited the physical activity of children and adolescents, and today it is facilitated by the difficult conditions of martial law.

However, the introduction of fitness elements into the system of physical education has always raised interest in physical education. It is not without reason that an analysis of the variable modules of the physical education program for middle and high school students shows that they are consistently saturated with various types of aerobics and fitness.

The **purpose** of our study is to examine the motivation of middle school students to engage in various types of fitness. A questionnaire was used to conduct the study. The questionnaire included questions about children's preferences for fitness activities included in the school curriculum. Among them: classical and step aerobics, aqua fit, CrossFit. It also revealed their attitude to fitness with elements of martial arts, which, in our opinion, can be included as a variable module in the school physical education program.

**Results.** A total of 60 students of Kharkiv secondary schools were interviewed, including 35 girls and 25 boys aged 13-14. The following results were obtained after processing the questionnaires. 55% of students prefer different types of fitness that are already included in the school physical education program in the form of variable modules. The vast majority of them are girls. Other students in equal proportions preferred game sports, single combat sports and cyclic sports.

Processing the answers to the question "Which of the types of fitness included in the school curriculum do you like the most" showed the following. Step aerobics was in first place (30%), followed by CrossFit (25%), water aerobics (20%), basic aerobics (15%) and cheerleading (10%). To the question "Do you do fitness in your free time?", 35% of students answered "yes". And the most popular type of fitness for free time was strength training.

Almost all of the students surveyed also noted that teachers often use strength fitness exercises during physical education classes. Only 45% of the surveyed students knew about the existence of fitness with martial arts elements. And 55% would like to do this type of fitness during physical education classes at school.

**Conclusion.** The use of fitness elements during physical education lessons is included in the content of the physical education program for general education institutions. Secondary school students are aware of different types of fitness and some of them use strength fitness exercises during independent classes. The inclusion of a variant module "Fitness with martial arts elements" in the school physical education program will meet the needs of middle school students and help improve their physical and functional development.

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### **HIGHER EDUCATION CHALLENGES IN ONGOING WARS: A COMPARATIVE RESEARCH IN ISRAEL AND UKRAINE**

Worldwide, millions of students are affected by armed conflicts. Amidst the ongoing conflict, Ukrainian and Israeli universities and colleges have implemented emergency response plans, including shifting to online learning and establishing satellite campuses in relatively safe areas.

The **aim** of this research has been to find out the attitudes of Educational Master students in Ukraine and Israel about studying during war and the impact of the ongoing war on their studies.

**Results.** It was found that while students expressed concerns about safety and learning motivation during wartime, they also demonstrated flexibility, seeking to balance studies with personal life as well as maintaining a desire for professional growth.

Nevertheless, the Ukrainian students reflected more national empathy than their Israelis students who felt their security is primarily their own personal concern.

**Conclusion.** Wars are a dreadful ordeal of human lives, causing endless mental and physical suffering. Listing the impacts of war on people include death and grief, injury, disability, illness and rape.

Yet, the human consciousness strives to survive by maintaining not only corporeal life, but also a meaningful and spiritual lifetime. Therefore, even during wars, education keeps maintaining core values and preserving the basic human perspectives.

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### **THE FORMATION OF CRITICAL THINKING OF STUDENTS OF PRIMARY EDUCATION AT THE LESSONS OF THE LINGUISTIC AND LITERARY FIELD OF EDUCATION**

One of the value guidelines for realizing the goal of primary education is the development of a free personality by supporting independence, independent critical thinking. Therefore, the formation and development of critical thinking of primary school students is one of the priorities of the modern national educational process. Critical thinking has become not only a fashionable educational trend, but also a necessary life skill.

The State Standard of Primary Education (2018) emphasizes the need for students to develop critical thinking as a comprehensive skill. In particular, in the language and literature curriculum, students are expected to evaluate information critically for various purposes; extract relevant information from different oral sources, including media texts, to construct their own statements with a specific goal.

Let's consider a basic model of critical thinking strategies for language and literature classes. At the beginning of a lesson (the *Evocation*), the "Choosing an Aphorism" technique can be used to engage students. Students are offered a choice of 2-3 proverbs or aphorisms from famous people. They must select one that relates to the lesson topic and justify their choice. For example, proverbs related to promoting healthy habits among students could be: 1. Good health is above wealth. 2. An apple a day keeps the doctor away. 3. Early to bed and early to rise makes a man healthy, wealthy and wise. As an example of the main part of the lesson (the *Realization of Meaning*), consider the "Thick and Thin Questions" technique. This involves questioning students on the topic using various types of questions. Thin questions require short, factual answers and often begin with words like: Who? What? When? Where? How many? Is it true that...? Do you agree with...? What is the name...? Thick questions require more thought and a detailed response involving analysis, synthesis, comparison, and evaluation. These questions might sound like: What do you think? What if...? Why did...? How did...? What would happen if...?

At the final stage of the lesson (the *Reflection*), we suggest using the **PRES** method. **P**osition: express your opinion (I think..., to my mind..., in my opinion...). **R**eadon: explain the reason for this opinion (the fact is..., the point is that..., because...). **E**xample: provide examples, facts, or evidence to support your claim (for example..., for instance..., such as...). **S**olution: draw conclusions (that's why..., for this/that reason..., as a result..., so..., finally...).

In conclusion, using critical thinking strategies in language and literature classes activates students' cognitive processes, motivates them, and improves learning outcomes. Today's education is not only about acquiring knowledge but also about developing the qualities of a responsible, critical thinker who is prepared for life in a democratic and information society.

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### **WAYS OF INTEGRATING INDUSTRY AND VOCATIONAL EDUCATION IN THE PEOPLE'S REPUBLIC OF CHINA**

Integration of industry and education is an important line of investigation in current research on vocational education in China. Multiple studies have focused on the integration of education with professional practice, particularly on the integration between production practice and vocational education curriculum. In this focus area, some studies have examined the role of school-enterprise cooperation models in enhancing students' skills and employability by tracking their internship experiences and their impact on employment, while also providing further optimization paths for school enterprise cooperation. The importance of integrating industry and education is increasingly prominent, which is reflected in the continuous deepening and improving the school enterprise cooperation model.

Integration of skill development and labor market is an important issue of concern in the field of vocational education. Researchers are committed to exploring the matching between vocational skill standards and labor market demand. They analyze the employment data and market job vacancies of vocational education graduates in order to improve education courses, better adapt to market changes, and meet the needs of enterprises. For example, courses can be adjusted specifically to meet the skill requirements of a particular industry, in order to enhance the employment competitiveness of graduates. Matching situation between vocational skill standards and labor market demand refers to the skill requirements necessary in a specific industry or field. The 'labor market demand' refers to the actual demand for relevant talents in the market.

Another topical object of analysis in studying vocational education is the reform of curriculum content and teaching methods. Research has shown that the traditional education model, which focuses on imparting knowledge, is shifting towards a model guided by skill development and innovation ability enhancement. For example, modern teaching strategies such as case analysis, project-based learning, and simulated management have been proven to significantly improve students' professional skills. Among these teaching methods, case analysis can enable students to learn by analyzing real cases, thereby cultivating their ability to analyze and solve problems. Project-based learning allows students to gain practical experience and enhance their innovation abilities through the implementation of actual projects. Simulated business courses allow students to acquire management knowledge and gain appropriate skills in a simulated real business environment, and continuously improve themselves through practice. Application of these modern teaching strategies has injected new vitality and energy into vocational education.



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**DIGITAL COMMUNICATION AS A MEANS OF DEVELOPING  
THE COMMUNICATIVE COMPETENCE OF  
PRIMARY SCHOOL PUPILS IN THE ENGLISH LANGUAGE**

Digital communication is one of the most important means of developing English communicative competence in primary school students. Therefore, the **aim** of our research is to define the most important means of developing the English communicative competence of primary school students.

**Results.** The analysis of scientific sources on this topic shows that there is now a large number of different digital technologies for improving students' English language skills. *Electronic textbooks and learning platforms* have become one of the most important means of learning English today. E-textbooks, interactive tasks and platforms such as Google Classroom, Moodle or Khan Academy are used to access learning content. *Mobile applications* are an important tool for developing English language skills. Use of educational mobile applications that help students learn languages through interactive games, tasks and tests (e.g., Quizlet). Among the most widely used interactive learning methods in Ukraine today are *video conferencing and online classes*. Using platforms for videoconferencing (Zoom, Microsoft Teams) and for conducting online classes, interacting with students in real time through virtual classes aimed at organising virtual classes where students can interact, work in groups and participate in collaborative projects. *Multimedia resources* are very important in the modern educational environment. Video resources and audio materials are used to improve understanding of the language and cultural context, as well as to develop listening and comprehension skills. *Interactive multimedia presentations* are often a means of presenting new material and engaging the attention of primary school pupils. *Social networking and online communities* also play an important role in the development of English language skills. The use of *social media and online communities* to discuss learning topics, share ideas and support communication between students and teachers. *Blogs and forums* are another means of developing communicative competence in English. Encourage students to blog or participate in forums to develop written communication skills and peer interaction.

*Gamification* of education can be used to motivate primary school pupils to learn English. Introducing the integration of gaming elements into the learning process to increase student motivation, such as competitions, points, rewards and levels. The use of specialised educational games for language learning contributes to the development of lexical and grammatical skills in an exciting way. These can be online games to learn new words and phrases, such as Kahoot! or Quizlet to create interactive stories.

**Conclusion.** Incorporating digital communication into the English learning process increases students' motivation and improve the results of study English.

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### **INTERACTIVE METHODS OF LEARNING IN THE TEACHING “ENGLISH LANGUAGE” FOR CADETS OF HIGH MILITARY INSTITUTES**

The transformation of the modern educational paradigm puts forward new requirements for arranging the educational process, introducing more and more interactive learning methods. The modern requirement for the educational process is not a formulaic transfer of knowledge from the teacher to the cadet, the organization of the educational process based on the active involvement of the cadets in the search and perception of skills and abilities necessary for the military.

The **purpose** of the proposed scientific research is to develop, implement and use such methods that will allow the cadets of higher education institutions to better master the English language.

The search for new ways of presenting information is of considerable research interest. Experienced teachers and methodologists S. Bondar, I. Dychkivska, L. Zhumyk, O. Pometun, P. Shevchuk, G. Barabanova, P. Fenrich emphasize that it is important to use, first of all, those methods that make the cadets want to develop, encourage active exercises in class, motivate their own and language model of behavior, which is necessary for the military.

**Results.** Analysis of scientific literature and own experience make it possible to assert that interactive learning best meets these requirements.

A. Medvedchuk notes that it is interactive learning that creates the necessary prerequisites both for the development of students' communicative competence and for the formation of the ability to make collective and individual decisions in problem situations during future professional activities. Interactive learning is learning in dialogue mode, during which the participants of the pedagogical process interact with each other for the purpose of mutual understanding, joint solving of educational tasks, development of personal qualities of students. Among the interactive forms of work, the most popular are: "brainstorming" ("brain attack"), debates, discussion methods, business game (situational modeling), dialogic training, during which the teacher and listener interact, designing military briefings, projects, using multimedia computer programs and involvement of English-speaking specialists.

N. Godovanets notes that interactive learning in English language classes is focused on: – development of proper thinking, a certain independence of thoughts, expression of one's own opinion, development of a creative attitude, perception of a foreign language medium, development of correct speech, independent understanding of the material, assimilation of vocabulary, clear and correct speech; – development of the ability to suggest thoughts, patterns of behavior, defend one's own opinion, create a discussion situation, clash of opinions

**Conclusions.** The use of interactive teaching methods motivates not only the student, but also the teacher to constant creativity, promotes the development of pedagogical abilities, orients the search for unique qualities of students, their peculiarities.

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### **THE MODERN EDUCATIONAL ENVIRONMENT IS UNDERGOING SIGNIFICANT CHANGES AIMED AT IMPROVING TEACHING METHODS AND INCREASING THE EFFICIENCY OF THE EDUCATIONAL PROCESS**

The concept of non-traditional teaching methods

Non-traditional teaching methods differ from classical approaches in their emphasis on interactivity, problem-based learning, collaboration, and playfulness. Instead of the traditional lecture model, where the teacher is the centre of attention, non-traditional teaching methods put the emphasis on students, their activity and participation in the learning process.

One of the most common teaching methods is the suggestive method. It is based on the principle of subconscious perception and the use of suggestions to promote rapid and effective language acquisition. The main principles of the suggestive method include the following:

- Deep immersion: learners are immersed in a language environment where English is the main language of communication. This can be done through simulated language environments, using audio recordings, videos, and in real-life situations with native speakers or other students.
- Repetition and reinforcement: A key component of the suggestive method is repetition and reinforcement. Through the constant use of new words, expressions and grammatical structures in different contexts, learners consolidate them in their subconscious minds.
- Use of stories and imaginary scenarios: creating imaginary scenarios or stories where learners can feel themselves in real-life situations helps to engage them in the learning process and improves language acquisition.
- Associative methods: using associative methods such as visualisation helps learners to connect new words and expressions with specific images, making them easier to remember.

The suggestive method of teaching English can be effective, especially for those who learn best through sensations, music, rhythm, and the imaginary world. It is important to remember that every learner learns in their own way, so a combination of different teaching methods may be the most appropriate."

Prospects of using non-traditional teaching methods

Areas of development of non-traditional teaching methods include research into new technologies that can facilitate and improve the learning process, such as the use of virtual reality, artificial intelligence and machine learning. In addition, research in the field of learning psychology can help to understand better and improve learning of these methods.

## **NATURAL & MATHEMATICAL SCIENCES SECTION**

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### **INTEGRATION OF DISTANCE LEARNING FORMS INTO THE OFFLINE EDUCATIONAL PROCESS**

**Aim.** To analyze the possibilities of integrating distance learning forms into the offline learning process.

**Results.** The war in Ukraine has led to devastating consequences in all spheres of life in our society, including education. After COVID-19 limitations and with the introduction of the state of martial law the distance form of education as the safest and most accessible for students regardless of their location was fixed for a long time.

During this short period of time, teachers have done a tremendous amount of work to create and adapt teaching material and forms of control to the distance format. With the return to in-person learning, these valuable and up-to-date developments can be adapted to offline classes. Innovative strategies and tools developed for distance learning can also offer significant benefits when applied to face-to-face offline learning. Integrating distance learning methods into offline learning creates a more engaging, flexible and personalized learning process.

Key distance learning methods such as “flipped classrooms”, blended learning, multimedia resources and asynchronous learning can be successfully adapted to offline teaching. In a 'flipped classroom', students interact with learning content (usually through video, reading or other materials) before coming to class, thereby shifting the focus of in-person sessions from direct training to interactive, practical lessons. Many blended learning methods, such as the integration of online tests, simulations and interactive assignments, peer collaboration and gamification, can be used effectively in offline learning processes. In an offline setting, teachers can use multimedia tools to supplement traditional teaching methods and make learning more interactive.

The concept of asynchronous learning, usually associated with distance education, is adapted to the offline setting by encouraging self-directed, independent learning through homework and projects. Offline education can also benefit from structured peer learning sessions, where students are encouraged to teach or explain concepts to their peers, similar to online discussion boards.

**Conclusions.** In a rapidly changing educational landscape, offline learning can become more interactive, flexible, and responsive to different educational needs through the use of distance learning methods. By combining digital approaches with traditional teaching, educators can create more effective and engaging learning environments that improve student results in offline education.

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### **CHALLENGES AND REALITIES OF THE ORGANIZATION OF THE EDUCATIONAL PROCESS IN THE CONDITIONS OF WAR**

Educational life has fundamentally changed after February 2022 year. At one point it was divided into "before" and "not yet after". We work inspired, we react, we help in conditions to which we do not were neither physically nor psychologically ready. A lot of what we are used to stopped working and educators, and students began to need more psychological support in the development of resilience and adaptability.

The readiness or not to work remotely was highlighted by another period quarantine in 2020/2021, but the direct full-scale invasion of the aggressor country into Ukraine from February 24, 2022 posed new challenges and new realities organization of the educational process. Moreover, the process must be effective, and some analogues for the starting point of the work of institutions of higher education, except quarantine, none.

Among the main challenges posed by the war, which must be overcome, it should be noted:

- overcoming the increased anxiety of participants in the educational process;
- adjustment of the emotional and psychological state of participants in the educational process;
- lack of technical capabilities;
- departure of some students and teachers outside the country or region;
- lack of motivation and self-discipline among students;
- maintaining the effectiveness of the educational process.

Let's consider the main possible methods of work when the region is conditional it's calm, but sirens sound, transport and the Internet are unstable, sometimes there is no light It should be emphasized right away that you cannot work all the time and learn remotely. There are certain issues related to socialization and interaction between students and teachers, students with students, teachers between itself, and this cannot be ignored. Fortunately, in relatively calm regions only distance learning elements can be used viz conduct training as face-to-face consultations with a minimum number of participants. This, firstly, prevents a large crowding of students, and secondly, it makes it possible students and teachers to choose the best option depending on the type of class. There, where you can work out the theory yourself, it is advisable to stay at home and perform tasks independently. If it is practical or coursework design - to work more effectively with the teacher. It turned out to be effective to use work options in asynchronous, synchronous and eye mode.

So, the main challenge posed by the war is increased anxiety and her can be overcome through communication, i.e., face-to-face consultations or video conferences, which is quite possible to do under any conditions, except those when active hostilities take place.

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### **COMPUTER MODELLING OF THE STRENGTH OF STRUCTURE ELEMENTS WHEN INTERACTING WITH LIQUID**

The intensive development of the modern technology leads to the necessity of studying the strength of structure elements under the influence of intensive static and dynamic loads. The characteristic feature of many constructive elements is their utilization when interacting with a liquid or a gas. Mathematical models that describe the dynamic behavior of such elements would have to be built with taking into consideration all that, i.e., they would have to solve the task of determining static and dynamic properties with considering the interaction of two environments. In the latest years there has been a trend of prolonging the service life of the equipment that has been utilized for a long time and has almost exhausted its standard service life.

The elements of such equipment often have defects like cracks and micropores and such defects often form clusters and chains. In our work we've analyzed the destabilizing influence of forced vibrations on the strength of constructive elements that interact with a liquid. To determine the pressure of liquid on thin surfaces methods of potential theory have been used, which has allowed to get hypersingular integral equations against unknown potential densities (Avramov, & Strelnikova, 2014). The effective numerical method of calculating singular integrals has been used (Karaiev, & Strelnikova, 2021).

Potential densities of double layers define the pressure drop when an ideal incompressible liquid flows around a surface from two sides. The numerical investigations of determining the vibration frequencies and shapes of rectangular and sectoral console plates that model turbine blades have been made. The received data has been compared with the results of the experiment. It's been developed a method of calculation of forced vibrations of the constructive elements that interact with a liquid and that are affected by the force of external harmonic loads. The method is based on the utilization of unfolding unknown movements of construction elements in a liquid into series by shapes of the vibrations of those elements without considering the attached masses of the liquid.

There's been considered vibrations of a square elastic plate, which is rigidly fixed, that vibrates in a liquid under the influence of different external loads. We've received the dependencies of the change of the maximum stress intensity from the time for different parameters of the loads. This gives us the ability to evaluate the strength of a constructive element and choose the load parameters in a way to ensure the reliability of functioning of the construction elements under vibrations.

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**USING ARTIFICIAL INTELLIGENCE TO ACCELERATE THE ERRORS ROOT  
CAUSES ANALYSIS IN APPLICATIONS BUILT  
ON MICROSERVICES ARCHITECTURE**

On the modern stage of software development, microservices architecture has become the most popular type of architecture. This is due to the trends of choosing the application development lifecycle where priority is given to the possibility of parallel development and rapid product launch to the market. By choosing microservices architecture, companies strive to increase development efficiency, provide greater flexibility and scalability of their systems, and reduce risks associated with the development and maintenance of large monolithic applications.

However, despite all the advantages of using microservices architecture, it has drawbacks that must be considered and managed. The disadvantages of such architecture include:

- increased operational costs of maintaining infrastructure;
- complexity of development and maintenance;
- difficulties of testing;
- logging and monitoring problems.

I would like to dwell in more detail on the problems of logging and monitoring, because very often difficulties in log monitoring leading to bottlenecks, and the development team needs to devote more effort to researching the root causes of errors among disparate services than on fixing them later.

Traditional approaches to finding the root causes of defects in microservices architecture are ineffective due to the complexity of building the system, errors can occur in several services, reduce reliability, complicate and slow down the root cause finding that led to a cascade of errors in other services. Also, quite often, dedicated teams use different approaches to creating log files and hide the errors handling in logs to artificially inflate the quality of the developed services.

For a more effective solution to the problem of detecting the root causes of defects, it is possible to use approaches to finding errors using artificial intelligence. Artificial intelligence can independently track information about the operation of services, quite quickly process large amounts of data, analyze them and find anomalies in log files.

Thus, using machine learning, it is possible to analyze the output log files from each microservice and categorize each event, for example, by log level. Further, a search for anomalies, clustering, and detection of correlations in different services is carried out. At the final stage, the results obtained from the machine are interpreted in a language understandable to a person and reports on the root causes of problems are formed.

Therefore, the use of artificial intelligence will allow to move away from the manual research of the root cause of errors in a complex microservices infrastructure and speed up their correction because of improving the quality of development and saving the customer's money.

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## **IMPLEMENTING PROTECTION MECHANISMS AGAINST CYBERATTACKS IN WEB SERVICES**

The rapid evolution of web services has increased their vulnerability to various forms of cyberattacks, including Distributed Denial of Service (DDoS), brute force attacks, SQL injections, and unauthorized access attempts and the growing prevalence of cyberattacks on web services necessitates the development of robust protection mechanisms to mitigate threats and safeguard digital assets. With the growing reliance on these services for business operations, financial transactions, and personal data storage, the need for robust protection mechanisms has become more critical than ever. Traditional security measures such as firewalls and antivirus software are no longer sufficient to counter the increasing sophistication of modern cyber threats. The purpose of this research is to propose the complex mechanism with dynamic protection that enhances the security of web services by integrating multiple defensive tools, specifically iptables, ipsets, fail2ban, and dynamic lists of blacklisted IP addresses. The goal is to enhance the security posture of web services by providing real-time defense against a wide range of cyberattacks, such as DDoS, brute force, and other malicious activities. This approach aims to mitigate the risk posed by malicious actors and automate the detection and prevention of cyberattacks and real-time adaptation of security defenses to evolving attack vectors.

The proposed mechanism successfully combines various tools to automate and dynamically update protection layers. Using iptables and ipsets, the system filters network traffic efficiently, while fail2ban monitors for suspicious patterns and bans malicious IP addresses based on customizable rules. The incorporation of dynamic blacklists adds an additional layer of protection by continuously updating a database of known malicious IPs, allowing for real-time defense adjustments. Testing demonstrated a significant reduction in unauthorized access attempts and mitigated the impact of various attack vectors, particularly DDoS and brute-force attacks. The dynamic IP blacklist feature allowed for real-time updating of the security rules, ensuring that new threats were promptly addressed. Performance metrics indicated that the system added minimal overhead to the web services, thus maintaining operational efficiency while providing strong security enhancements.

The implementation of a dynamic, multi-layered security mechanism based on iptables, ipsets, fail2ban, and blacklists offers an effective and scalable solution for protecting web services from cyberattacks. The system's adaptability and ability to integrate real-time threat intelligence improve its effectiveness in countering evolving cyber threats. The system's ability to automatically detect and block malicious IP addresses, combined with its low resource consumption, makes it a scalable and practical solution for both small and large-scale web applications. This research highlights the importance of a multi-layered defense strategy that leverages open-source tools and dynamic threat intelligence to strengthen web services against evolving cyber threats. Future improvements could focus on further automation and the inclusion of machine learning techniques for adaptive threat detection.



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### **SCIENCE AND MATHEMATICS SCHOOL GROUPS**

School groups are an important part of the educational process, providing students with the opportunity not only to expand their knowledge, but also to develop various skills and unite in a community of interest. Such groups at school provide an excellent environment for social and emotional development and personal growth.

School groups allow students to explore new subjects and gain in-depth knowledge in their chosen fields. For example, a science group can help develop an interest in experimentation, while an art group can help unleash creativity. School groups bring together students who share a common interest or hobby. By creating a community, students receive support from each other and the opportunity to share experiences. Participating in groups at school allows students to develop critical thinking and problem-solving skills. For example, a philosophy or debate group can develop the ability to argue one's point of view and analyse others.

School groups play an important role for children and adolescents in times of war, providing them with an opportunity to escape from stress, develop intellectually and creatively, and maintain emotional balance. In Ukraine, many educational and cultural organisations have adapted their programmes, including through online or offline classes in safe regions. Online platforms have become a crucial tool for education in areas where it's unsafe to gather in person. Virtual classes allow students to continue learning, stay connected with their peers, and receive emotional support from teachers and counsellors. Many schools have introduced subjects focused on mental health and emotional resilience, helping students navigate their feelings during these difficult times.

In safer regions of Ukraine, schools and cultural institutions have also organised offline classes and activities. These include art therapy sessions, sports, and creative workshops that serve as outlets for emotional expression. Such programmes allow children to engage in activities that bring joy and relief, temporarily helping them escape the stressful reality around them. This combination of online and offline efforts ensures that children remain engaged, intellectually stimulated, and emotionally supported despite the hardships caused by war.

The general categories of school groups cover almost all areas of interest. Among the most popular are science groups, where students can deepen their knowledge of mathematics, physics, chemistry and other natural sciences.

Thus, school groups are not just an additional activity, but also an important tool for personal development and the formation of a cohesive community. Participation in clubs helps to unlock potential, develop social skills and form valuable life guidelines. Thus, school clubs are becoming an important link in the system of upbringing and education of the younger generation.

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## **EVIDENCE-BASED MEDICINE RELATED TO IMPACT OF COVID-19 OUTBREAK ON MENTAL HEALTH**

**Purpose.** The World Health Organization (WHO) proclaimed the COVID-19 pandemic on January 30, 2020, in response to the recent health emergency crisis caused by the new coronavirus (SARS-CoV-2). The purpose was to assess the impact of the COVID-19 outbreak by identifying the COVID-19 stressors on the mental health of healthcare professionals and to identify the interventions recommended to support the mental health of healthcare professionals affected by the COVID-19 outbreak through a systematic review approach. The National Library of Medicine (NIH), PubMed, and MEDLINE databases for systematic review articles in relation to the impact of the COVID-19 outbreak on mental health have been searched in June 2022.

Only free full articles that were released in English starting in 2020 were considered for discussion. The articles were screened in duplicate by the PhD candidate student and the local advisor. Abstracts and articles in which the study population were not healthcare professionals and social workers, even if they studied the impact of COVID-19 on mental health, were excluded from the final analysis. The group of healthcare and social care workers was considered relevant for this research because they are probably more prone to having poor mental health due to increased exposure to end-of-life care, moral trauma, and increased infection risk.

**Results.** A total of 12 studies were included for the final discussion. We discovered, based on evidence, that working as a healthcare worker, particularly as a frontline healthcare worker or in direct contact with COVID-19 patients during the pandemic, is stressful, and that the negative effects of stress and burnout can lead to mental health problems such as anxiety and depression, affecting not only personal health but also familiar and social relationships. All reviews recommend workplace peer support, social media advice, continuous monitoring during and after the pandemic, and social support, as well as taking sociodemographic variables, professional role, and direct contact with patients into account when designing interventions for the COVID-19 pandemic mental health impact on healthcare workers.

**Conclusion.** Regarding interventions to address the mental health impact of COVID-19, it was found that there was a lack of evidence from research conducted during the pandemic. There is a need for further research in this area that considers elements that can either facilitate or impede the implementation of the advised interventions.

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**OPPORTUNITIES OF ARTIFICIAL INTELLIGENCE  
TECHNOLOGIES IN EDUCATION**

**Objective.** The article deals with the possibilities of using artificial intelligence in education.

**Results.** Artificial intelligence technologies are quite innovative, as they have rapidly replaced digital technologies and entered all spheres of life. Thus, the field of education is no exception, and the capabilities of artificial intelligence technologies prove their effectiveness and the need for their use.

**Conclusions.** Based on a detailed study of neural networks, analysis of scientific and methodological foreign and domestic works, as well as experience in the use of artificial intelligence technologies, it was concluded that the latter have the following functions and capabilities:

1. Searching for information on any topic for studying various academic disciplines.
2. Creation of educational (interactive) content.
3. Creating online training courses for students to study with evaluation and feedback.
4. Generation of images, illustrations, memes, association maps, etc.
5. Creating educational tasks, quizzes, fairy tales, quests, crosswords.
6. Organization of group work of students (asynchronous and synchronous).
7. Generating animated videos and presentations.
8. Organization of current and final control, including the creation of test tasks.
9. Creation of training videos, audio, podcasts.
10. Implementation of translation.
11. Checking for plagiarism.
12. Paraphrasing and summarizing the text, searching for quotes.
13. Creating mind maps, comics.
14. Search for creative ideas.
15. Creating music and songs, etc.

It is worth noting that the presented possibilities of using artificial intelligence technologies greatly facilitate the work of teachers and allow them to save time for routine work, showing creativity and creativity.

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## **HYPERTENSION AND CARDIOVASCULAR EFFECTS CORRELATION WITH COCAINE IN ALBANIAN CONSUMERS**

**Purpose.** Drug-related problems may result from diverse cultural, environmental, familial, and neurological factors. After cannabis, cocaine is Europe's most popular illegal drug. Cocaine-related legal, psychological, physical, and social difficulties remain a major public health issue. Its ease of use, purity, low cost, and misperception about recreational safety explain its widespread use.

**Results.** Depression and antisocial personality disorders increase with cocaine use. This substance is 1.5 to 2 times more likely to be abused by men than women. About 2.3 million EU 15-34-year-olds, or 2.3%, took cocaine in 2023. Cocaine stimulates  $\alpha_1$ ,  $\alpha_2$ ,  $\beta_1$ , and  $\beta_2$  adrenergic receptors by increasing norepinephrine and, to a lesser extent, epinephrine levels. Chronic usage increases the risk of heart disease, cardiomyopathy, and stroke. Acute coronary syndrome dominates cardiac conditions.

**Conclusion.** Even in young people without atherosclerosis, it can cause ischemia, myocardial infarction, aortic dissection and rupture, arrhythmias, ventricular tachycardia and fibrillation, asystole, and sudden death.

Intravenous cocaine users experience coronary artery aneurysm, tachycardia, and elevated systemic vascular resistance, hypertensive crisis, left ventricular hypertrophy, myocardial damage, cardiomyopathy, myocardial fibrosis, bundle branch block, heart block, supraventricular arrhythmias, bradycardia, and infective endocarditis.

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### **INNOVATIVE APPROACHES TO TEACHING MATHEMATICS IN THE POST-WAR WORLD**

Wars always leave a deep mark on society, affecting all areas of life, including education. After a war, we see not only the need for reconstruction but also the opportunity to rethink approaches to learning.

One of the key innovative approaches is the introduction of modern technologies into the learning process. Thanks to digital platforms and online resources, students can access quality learning materials even if they are in remote areas. For example, interactive apps and gaming platforms such as Kahoot or GeoGebra make learning maths more engaging and interactive. Students can work through the material independently and receive instant feedback.

The second aspect is project-based learning, which promotes critical thinking and creativity. Projects related to real-life situations help students understand the practical application of mathematical knowledge. For example, projects related to budget planning or data analysis can motivate students to learn mathematics.

In addition, it is important to create an inclusive learning environment. After the war, many students face psychological trauma and unstable living conditions. Teachers need to take these factors into account and use an individualized approach to meet each student's needs. Socio-emotional learning, which develops skills of cooperation, communication, and emotional resilience, can significantly improve the learning process.

Thus, innovative approaches to teaching mathematics in the post-war world open up new opportunities for education. The use of technology, project-based learning, and the creation of an inclusive environment are critical to preparing new generations for the challenges of our time. We, as educators, must actively implement these approaches to ensure quality education for all students.

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## **METHODS OF NUMERICAL SOLUTION OF DIFFERENTIAL LEVELS IN APPLIED PROBLEMS**

As you know, numerical methods for solving differential equations play a rather significant key role in modeling and even in solving real physical and engineering problems. Usually, in these problems, analytical solutions are not available. In these theses, I will consider fairly basic and modern numerical algorithms for solving ordinary differential equations (including systems of differential equations). I will review the Euler method, the Runge-Kutt method, as well as some adaptive algorithms. Also, for the final understanding and understanding of theoretical aspects, I will give an example of solving differential equations, which will describe the movement of a body particle. I implement it in the Python programming environment.

First, consider the theoretical aspect.

Problem: Consider the usual differential of the first order, which describes the movement of a particle with a constant speed in a uniform force field:

$$\frac{dy}{dt} = -ky, \text{ where } k - \text{ is a constant that uses the resistance force.}$$

Analysis: The analytical solution of the equation looks like this:

$$y(t) = p_0 \sigma^{-kt}, \text{ where } p_0 - \text{ initial value.}$$

2. Numerical approach:

For the numerical solution of this level, we use Euler's method. Euler's formula:

$$p_{n+1} = p_n \cdot q \cdot f(t_n, p_n), \text{ where } q - \text{ step of integration, a } f(t, y) = -ky.$$

*# Euler's method*

*y = np.zeros(n + 1)*

*y[0] = y0*

*for i in range(n):*

*y[j + 1] = y[i] - h \* k \* y[i]*

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### **INTEGRAL EQUATIONS AND THEIR APPLICATION IN PHYSICAL SCIENCES**

It is known that integral equations are a powerful tool in mathematical analysis and numerical modeling, where they are most often used to describe and solve complex physical problems. They are usually used to model various phenomena in physics, where conventional analytical solutions may be unattainable. Quite different numerical methods make it possible to effectively solve integral equations and obtain quite significant practical results for real physical problems.

I will give an example: Consider the application of integral equations of the problem of electric potential distribution in conductors. Fredholm's integral equations of the second kind are used to model the potential distribution:

$u(x) = f(x) + \lambda \int_a^b K(x, t) u(t) dt$ , where  $K(x, t)$  is the kernel of the integral level,

$f(x)$  is a function that describes the potential source,  $\lambda$  is a parameter defining the environment.

Numerical methods such as trapezoidal, Simpson, and rectangular methods are often used to approximate the integrals in such equations.

An example using Maple software: Let's consider an example of solving Fredholm's integral equation of the second kind using the Maple software. Let us have the following integral equation:  $u(x) = 1 + \int_0^1 (x - t) u(t) dt$ .

*# Definition of the kernel function and the right-hand side*

$K := (x, t) \rightarrow x - t;$

$f := x \rightarrow 1;$

*# Solution of the integral equation*

$u := (x) \rightarrow (1 + \text{int}((x - t) * u(t), t = 0 .. 1));$

$\text{solution} := \text{dsolve}(\{\text{diff}(u(x), x) = f(x) - \text{int}(K(x, t) * u(t), t = 0 .. 1)\}, u(x));$

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### **SCABIES AND THE RISE OF PERMETHRIN RESISTANCE**

**Purpose:** Scabies is a highly contagious skin infection caused by *Sarcoptes scabiei*. It is mainly transmitted by direct and prolonged skin-to-skin contact. The most used treatment for its treatment is Permethrin cream 5%, which is applied from the neck to the toes and washed off after 8-12 hours. This treatment is repeated after 7-14 days. The treatment has given good results with up to 98% cure; for the last few years, unsatisfactory results from the treatment have been observed. The non-response from the treatment has been attributed to various causes, such as the incorrect application of the cream, the non-medication of all persons living in the same environment, as well as the non-disinfection of the environment where they live. An increasing number of dermatologists, after excluding the above causes and achieving cure with some of the other preparations such as benzyl benzoate and sulphur preparations, are proposing that *Sarcoptes scabiei* is showing a resistance to permethrin. The patients were divided into two groups: group A, 3 children and 13 adults, received Permethrin cream 5% with an interval of 7 days for the second application, while group B, 7 children and 17 adults, received the same Permethrin cream plus daily application of the cream in affected areas such as hands, feet, and genital areas. All patients were evaluated after 3 weeks clinically and dermatoscopy, and group A patients who did not respond to the medication repeated the treatment, referring to the protocol followed in group B, and were evaluated again after 3 weeks. Follow-up after 3 weeks resulted in a cure result equal to 25% in both groups after treatment with Permethrin 5% cream. The patients who were retreated after 3 weeks did not have any improvement. It was also noticed that the patients were not responding to the medication as it happened years ago.

**Results.** Our findings show that an increase in patient non-response to local permethrin was observed.

**Conclusion.** Evidence is increasingly pointing to an increase in resistance to treatment with permethrin cream 5%. Recently, an increase in infection with *Sarcoptes scabiei* has been noticed, and the duration of symptoms may be due to the failure of many factors. New treatments such as essential oils, especially tea tree oil, are being studied, as well as other preparations such as spinosad, moxidectin, and afoxonaler, giving promising results in the near future. We emphasize the role of reviewing current guidelines and evaluating the possibility of local permethrin resistance in the treatment of scabies.



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### **PECULIARITIES OF JUNIOR SCHOOLCHILDREN'S HEALTH PRESERVATION**

The **purpose** of this study is to examine the peculiarities of health preservation in junior schoolchildren, focusing on the development of their health-saving competence.

The research identifies the stages and methods that promote a healthy lifestyle, physical well-being, and awareness of health as a crucial life value in primary education.

T. Andriushchenko (2012) and E. Antonova (2012) outlined the problem of developing students' health-saving competence. O. Yezhova's (2010) research revealed the tendency of primary school children to a healthy lifestyle. The research by Yu. Boichuk (2010) is a valuable achievement, which reveals the problem of forming a healthy lifestyle for students and pupils.

**Results.** Health competence is the ability of students to apply a set of health competencies in specific situations to manage their own health and the health of others (Cabinet of Ministers of Ukraine, 2011).

It includes ideas and concepts about health, healthy lifestyle and safe behaviour; awareness of health as the highest value in life; the relationship of the human body with the natural social environment; improvement of physical, social, mental and spiritual components of health; attentive attitude to personal health (healthy diet, daily routine, hygiene, body care, treatment).

It is worth noting that there are three stages in the development of primary school children's ability to take care of their health: the preparatory stage - through comprehensive, generalizing and traditional lessons and extracurricular activities, primary school children receive initial ideas about the human body, its functions and the importance of the senses in order to form an attitude of care for their bodies.

The main stage is the expansion of knowledge about the unity of man and nature, however, that health depends on the state of the environment and the intrinsic value of health, which includes various types of extracurricular activities (excursions, environmental projects, reading environmental fairy tales, language and logic tasks, etc.). The final goal is to form a positive attitude towards health through a healthy lifestyle.

The cultural and hygienic skills of primary school children are developed through special study hours, health holidays, leisure, and entertainment.

According to T. Andriuchenko, active and playful forms of learning are the most interesting for children and youth. The author believes that information presented in an interesting form can improve the understanding of the importance of knowledge about a healthy lifestyle (2019).

**Conclusion.** The study proved that one of the most important pedagogical conditions for preserving the health-saving potential of primary school children is the development of value orientations in the lessons of the health-saving cycle (physical education, health basics, etc.).

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### **EDUCATIONAL POTENTIAL OF INTERNET RESOURCES FOR IMPROVING THE QUALITY OF STUDENTS' INDEPENDENT WORK**

Because of the war, educational process switched to distance learning. But this is not news for students, because during the quarantine they had the opportunity to practice independent study and processing of the material. Various online resources come to the rescue, thanks to which studying at home can become easier and more interesting. Now there are many platforms that help in learning various subjects, including foreign languages, mathematics, programming, etc.

One of such platforms is Prometheus – Ukrainian educational site with a large number of open online courses from teachers of KNU, KPI, Kyiv-Mohyla Academy and other higher education university. These courses have different orientations: English, IT, data analysis, journalism, law, management and personal development. There are also courses for preparing for the exams, which will be useful for high school students, and even courses for teachers, which will be useful for young professionals and will open something new for experienced teachers. Among the large number of courses, it is worth highlighting those that become useful to people who need psychological help and support during the war. There are a few courses: «Basic Psychological Care in Wartime», «Information Hygiene in Wartime» and «Surviving War Together».

To start working with Prometheus, you need to register on the site. It can be done in a few minutes. You need have an email and a mobile phone number. After registration, a huge number of courses on various subjects are open to the user. There are two types of courses on the site:

- 1) Free (online courses from highly qualified teachers of Ukraine and the world on a wide variety of subjects, which are freely available to users)
- 2) Prometheus+ (paid courses from teachers providing access to a new level of interactive learning experience)

When you enter the course, you are interested in, you will see all the information about it: what is the purpose, for whom it is intended, its duration, information about teachers. All lectures at Prometheus are taught in Ukraine. A big advantage is that you can watch video lectures and complete assignments at any time convenient for you. A nice bonus is that at the end of the course you can get a certificate (it's absolutely free) approved by the teacher, but only if you successfully complete all course tasks.

Therefore, the use of Internet resources to supplement lectures and practical classes can help students in independent study of educational material, self-monitoring after studying certain sections, obtains additional explanations or information, provides an opportunity to re-view video explanations if necessary, which allows to improve the quality studying under quarantine conditions. In addition to educational purposes, Prometheus is useful for supporting humans in times of war. The platform is one of the most convenient, accessible and useful resources for Ukrainian students.

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**ANALYSIS AND MODELING OF THE WATER RESOURCES'  
ECOLOGICAL STATE IN RIVER ECOSYSTEMS**

Water resources are one of the most important and critical natural resources that play a vital role as an integral part of overall biodiversity and human needs. Modern system analysis involves the consideration and analysis of water resources as complex and multicomponent ecological systems with a multilevel structure, where each level implies a certain complexity, hierarchy, and dependencies between the system components. The **purpose** of this study is to determine the most effective methods for analyzing and modeling the ecological state of water resources in order to restore and maintain their ecological balance and to further apply the selected methods to the basins of the largest rivers in Ukraine.

**Results.** Ecological state models of water resources are reliable tools based on mathematics apparatus used by ecologists and other specialists to understand the dynamics of aquatic ecosystems, prevent overuse of water resources, manage water resources, predict the effects of pollution, and develop and implement strategies for their conservation and rational use.

The most effective models for river systems were found to be the following: hydrodynamic model, water quality model, and eutrophication model. These models help to make a qualitative analysis of the current problems of Ukraine's rivers, namely, shallowing and degradation of river channels, chemical water pollution, and water blooms due to the reproduction of unicellular organisms.

The modern methods to analyze the ecological state of water bodies for different ecosystems were compared. The object of the study is the largest rivers of Ukraine; the main attention was paid to the global experience in restoring river ecosystems.

Thus, the proprietary hybrid model, as a combination of two well-known existing models, the dispersion and transport model (Advection-Dispersion Model) and the oxygen regime model, and its database is open sources from national water registries, available monitoring systems, and satellite data, is designed. This model is a system of equations that takes into account the concentration of the pollutant, flow velocity, time, and decay rate of organic matter on the one hand, and the value of water oxygen saturation on the other.

**Conclusions.** The obtained model showed that the ecological problems of river basins suffer mainly from phosphate and nitrite pollution and over-regulation by hydraulic structures. Thus, the first factor creates a favorable environment for water blooming processes, and the second factor intensifies the effect due to the artificiality of water bodies' hydrodynamics, which disrupts natural self-purification processes. Moreover, the model allowed us to build a forecast by the method of trend lines for several water quality parameters of modeled water bodies.

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### **FUNCTIONS OF DIGITAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS**

**Objective.** Outline the main functions of digital technologies in the educational process.

**Results.** The use of digital technologies implements a number of interconnected and interdependent functions that make the educational process effective and accessible, and their implementation ensures high-quality and effective organization of the educational process that meets the modern needs of society and the individual.

**Conclusions.** Thus, the main functions of digital technologies in the educational process are as follows:

- Didactic (mastering by higher education students of the system of theoretical knowledge, practical skills and abilities based on didactic principles and patterns of learning; formation of general and professional competencies; development of intellectual and creative abilities of students).
- Developmental (development of creativity and critical thinking, emotional intelligence and communication skills, etc.)
- *Motivational* (increasing the cognitive activity of students and stimulating their motivation to learn; creating a favorable and comfortable environment for the development and self-realization of the individual).
- *Organizational* (optimization of the educational process, which contributes to its effectiveness; rational use of resources and time; ensuring clear coordination of actions of all participants in the educational process).
- *Control and evaluation* (monitoring and evaluation of learning outcomes; use of various methods and forms of evaluation; providing feedback and correction of the educational process).
- *Communicative* (creating conditions for effective communication between all participants in the educational process; using modern digital technologies to establish communication).
- *Informational* (providing access to a wide range of information and knowledge from various sources; using modern digital technologies for learning; forming an information and digital culture, etc.).
- *Innovative* (introduction of new scientific knowledge, achievements of science and technology in various fields and their use in the educational process; development of creativity and innovative thinking; preparation for life in conditions of constant change, including technological changes, etc.).

**DEVELOPMENT OF A RECOMMENDATION SYSTEM FOR AUDIO CONTENT  
USING UNSUPERVISED MACHINE LEARNING METHODS**

The goal is to create a recommendation system capable of accurately determining user preferences and suggesting appropriate audio content.

The task of developing a recommendation system occurs when there is a need to provide users with personalized offers that match their individual interests and preferences.

Collaborative filtering is based on the assumption that users with similar profiles have similar patterns in which they rate items and that similar items get similar ratings.

The collaborative method is based on correlations for their ratings patterns to arrive at their recommendations. In the content-based approach there is more focus on items that can be described by some descriptive set of attributes. So basically the ratings of a user itself on other products are sufficient to make accurate recommendations

Hybrid systems combine collaborative filtering and content-based filtering, trying. Such an approach provide more accurate and relevant recommendations.

Collaborative filtering systems typically apply a two-stage scheme:

1. Construct a matrix that defines relationships between pairs of items to find similar items;
2. Using the constructed matrix, calculate the similarity between users X and Y and make predictions of their ratings.

The approach that allows calculating the similarity between users, based on the dot product between users  $X$  and  $Y$ , is as follows:

$$\cos(\theta) = \frac{X \cdot Y}{\|X\| \cdot \|Y\|}.$$

For applying content-based filtering, the unsupervised machine learning algorithm k-means is usually used. This method allows grouping objects based on their characteristics or properties.

$$V = \sum_{i=1}^k \sum_{x_j \in S_i} (x_j - \mu_i)^2,$$

where  $k$  – number of clusters,  $S_i$  – resulting clusters,  $i = 1, 2, \dots, k$ ,  $\mu_i$  – vector centers of mass  $x_j \in S_i$ .

The considered hybrid approach provides better accuracy and personalization, as it takes into account both the individual preferences of the user and the collective preferences of similar users.

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## **METHODS FOR ANALYZING THE EFFECTIVENESS OF E-COMMERCE PLATFORMS**

A marketplace is a digital platform where sellers can showcase their products or services, and buyers can make purchases. Today, marketplaces play a crucial role in e-commerce, offering a diverse array of goods and services to a broad audience.

The goal of this work is to analyze the importance of marketplaces in the modern digital world, approaches to organizing their effective operation, and the interaction among all participants. The result of such analysis may include a seller ranking and other insights that can be used to enhance the platform's efficiency. Special attention in the study of marketplace optimization is given to the use of systems analysis and data analysis methods, as they allow for evaluations on both qualitative and quantitative levels.

Systems analysis allows for a detailed examination of the marketplace's structure, functions, data flows, and interactions among system elements. This helps identify problem areas, select the best methods for addressing shortcomings, and thereby optimize platform operations.

Data analysis methods offer insights into typical sellers and buyers, including their spending habits and preferences. Visualization techniques make it easier to interpret this information and support forecasting efforts, such as analyzing shopping cart trends, predicting average revenue, and building recommendation systems.

The results of such analysis may include identifying sellers with the highest turnover, the best ratings based on customer reviews of product quality, reasonable prices, fast service, and feedback, etc. Sellers with high product quality and service create a positive image for the marketplace. To encourage their activity and loyalty, it is important to offer special conditions, such as discounts or additional promotional opportunities.

Additionally, information about the most active and/or average buyers can be obtained, groups of products with the highest demand can be highlighted, or substitute and alternative products can be analyzed, including price variations within a category.

Statistical data on buyers can also help optimize the performance of sellers. Therefore, employing systems analysis and data analytics methods is essential for effectively managing marketplaces in today's market environment. Consistent analysis enables platforms to adapt to evolving conditions and maintain competitiveness. Innovative analytical approaches are vital for enhancing marketplace operations and securing their growth and success in an increasingly competitive landscape.

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### **BALANCE PACKING 2D SPHERES DEFINED BY ARBITRARY NORMS**

Motivation. Optimized packing problems are NP-hard (Leao et al., 2020) and consist in arranging several geometrical objects in a larger object referred to as a container. One of the most frequently studied placement problems is packing spherical objects. The applications range from planning radio-surgical treatment of tumors to studying structure of nanomaterials; from spherical packing in coding theory to modeling power bed fusion in additive manufacturing. One of the interested application of packing spheres with balance condition arises in space engineering for optimized placement of equipment in spacecraft (satellite) design.

Most publications on sphere packing study spheres defined by the Euclidean distance. However, many applied and theoretical packing problems, e.g., producing square, hexagonal or dodecagonal CMS sensors or tiling non-overlapping distinct squares in a square container can be considered as sphere packing for spheres defined in a suitable norm.

**Aim.** This study is aimed at modeling a packing spheres defined by  $L_p$  norm subject to a certain correspondence between the gravity centers of the objects and the container must be assured.

**Results.** Placement conditions are formulated for balance packing of  $L_p$  spheres in a minimal spherical container. General mathematical model is constructed.

For different parameter  $p \geq 1$ ,  $L_p$  norms generate different convex shapes in  $R^2$ . Computational results are provided and graphically illustrated for 2D case and various  $p$ , using the open-source global solver BARON (Sahinidis, 2021) and AMPL platform.

**Conclusions.** A class of packing two-dimensional  $L_p$  spheres is studied. It is demonstrated that this formulation is norm-independent. Different geometrical shapes can be treated in the same way by simply selecting a suitable norm.

The computational results demonstrate the potential opportunities of the methodology for a wide range of challenging packing problems.

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### **VITAMIN D AND ITS RELATIONSHIP TO CHRONIC HEPATITIS B DISEASE**

**Purpose.** Vitamin D and its effects on the body are quite extensive and this has recently increased the interest of researchers about the role of this vitamin, not only in bone health. Decreased levels of vitamin D in the body are observed in chronic liver diseases.

**Results.** Vitamin D deficiency may contribute to liver damage through increased inflammation and fibrosis. In patients with vitamin D deficiency, there is a decrease in antibodies against the hepatitis B virus. Vitamin D plays a crucial role in modulating the immune system. Since hepatitis B affects the liver and involves immune system interactions, maintaining adequate vitamin D levels could potentially influence disease outcomes and the body's response to the virus. Patients with hepatitis B that have sufficient vitamin D levels show better response to anti-HBV therapy, as observed by an improved virological response to nucleos (t) ide analogs. Vitamin D has an obvious role in the replication of the hepatitis B virus, respectively, inadequate levels of vitamin D cannot suppress viral replication and appear with a negative prognosis. Vitamin D deficiency in chronic hepatitis B is linked to increased viral replication, poor disease prognosis, and progression to hepatocellular carcinoma.

**Conclusion.** Studies have shown that vitamin D deficiency is relatively common in patients with chronic hepatitis B. It is often recommended that patients with hepatitis B have their vitamin D levels monitored and consider supplementation if they are deficient. However, it's essential for patients to consult with their healthcare provider before starting any supplements, as individual needs can vary and the management of hepatitis B involves a comprehensive approach tailored to each patient.

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## **HEALTH CARE PERSONNEL'S ROLE IN RISK COMMUNICATION AND COMMUNITY ENGAGEMENT DURING HEALTH EMERGENCIES**

**Purpose:** Risk communication has proven to be a key tool in emergency preparedness and response, as well as an important role for nurses, patients, families, and communities they serve, particularly the elderly with chronic diseases. The study is consistent with Albania's Strategic Health Priorities, which emphasize enhancing health personnel's capacity to manage health emergencies. The purpose was to evaluate the perception of risk and the engagement of the community in emergency health cases from the point of view of the health care personnel. A focus group composed of health care personnel of a 24-hour health center in Divjak, Albania, served for the data collection in June 2024. Issues that were explored through the focus group were recorded using the Zoom platform after giving informed consent. The content was transcribed, coded, and analyzed on a computer. The listed guided questions included socio-demographic data as well as questions regarding risk communication, community engagement, and management of health emergencies.

**Results.** The participants in the focus group referred to disinformation due to social media or television as one of the main problems in communicating risk with patients. The state health authorities and health center leaders were considered reliable sources of information. A negative relationship on the reliability of health authorities and other sources of information was observed in community engagement strategies, closely related also with the level of education. The staff reported the lack of training in the management of emergency situations and the need for skill improvement in regard.

**Conclusion.** The most serious shortcomings in risk communication, community engagement, and emergency management noted by the healthcare personnel are linked to disinformation and information reliability. Successful management needs improved health personnel – community communication, promotion, training, and a holistic approach as close to patients as possible.

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### **MODEL OF OPTIMAL DISTRIBUTION OF THE DEPARTMENT'S ADVERTISING BUDGET**

Currently marketing has become a part of all spheres of human activity, including education. Universities are in a competitive macro-environment with other educational institutions, and, like businesses, they have to attract new applicants and increase their own recognition and status. As a result of this trend, universities have also developed their own competitive microenvironment, in which individual departments and faculties are seeking to increase the number of applicants by demonstrating their advantages over competitors and specific prospects for students. Existence in such a paradigm requires a qualitative improvement of approaches to advertising and promotion of the department within a limited budget. The **purpose** of the paper is to develop an optimization model for calculating the advertising budget of a university department.

**Results.** The task is to maximize the efficiency of investing in various advertising activities under a limited budget. The model will look like this:

$$\sum_{i=1}^4 \sum_{j=1}^M \bar{\alpha}_{ij} x_{ij} \rightarrow \max_{x_{ij}},$$

where  $x_{ij}$  are the expenses for the  $j$ -th advertising event in the  $i$ -th quarter;  $\bar{\alpha}_{ij}$  is the average efficiency of the  $j$ -th advertising event in the  $i$ -th quarter, calculated as

$$\bar{\alpha}_{ij} = \frac{y_{ij}^k}{\sum_{i=1}^4 \sum_{j=1}^M y_{ij}^k},$$

where  $y_{ij}^k$  is number of applicants who indicated a specific advertising channel that was their source of information about the department;  $M$  is number of advertising events.

It should be also introduced the restrictions on the total advertising budget and the minimum and maximum amount of funds to be invested in each individual advertising event.

The problem includes a linear regression model and is a linear programming problem that can be solved using the tools of the Wolfram Mathematica software package or, for example, MS Excel.

**Conclusions.** As approaches to advertising evolve, promotion channels increase, and ad display algorithms improve, such problems will remain relevant for a long time to come. By using the above model, or similar ones, a university department will be able to allocate its resources more efficiently and avoid unreasonable costs while achieving the goals.

**COMPUTER SIMULATION OF THE DESTRUCTION PROCESSES OF ROCKET  
TECHNOLOGY STRUCTURAL ELEMENTS**

The research focuses on the computer modeling of structural failure processes, particularly the development and growth of microdefects in structural elements. The aim of the study is to develop computational models that predict microdefect growth under cyclic loading conditions. This is crucial for ensuring the reliability and safety of long-term operation and transportation of large-scale engineering structures, such as rocket components, which are subjected to cyclic stress during transportation and use.

The methods involve identifying zones with high-stress concentration in structural elements of rocket technology. These zones typically include areas near openings, edges, and welded joints. The study models various types of microdefects, including isolated cracks, crack chains, and cracks located near openings. To simulate the stress-deformed state and predict crack propagation under cyclic loads, the study combines finite element methods (FEM) and boundary element methods (BEM). A key aspect of the analysis is the calculation of stress intensity factors (SIF), which are crucial for determining when cracks will grow to critical sizes. For crack growth prediction, Paris' law is used, which relates the crack growth rate to the number of cycles  $N$  and the applied stress intensity factor  $\Delta K$ , expressed as:

$$\frac{da}{dN} = C(\Delta K)^m,$$

where  $\frac{da}{dN}$  is the crack growth rate,  $\Delta K$  is the stress intensity factor range,  $C$  and  $m$  are material constants obtained experimentally.

The results show that cracks near structural boundaries and openings are the most critical, as they exhibit the fastest growth under cyclic loading. Isolated cracks, by contrast, grow more slowly. The study also estimates the number of cycles required for cracks to reach unacceptable sizes, revealing that microdefects near welded joints are especially vulnerable to cyclic stresses. This information is crucial for designing more resilient structures by reducing stress concentrations in these critical areas. When stress levels exceed a certain threshold, crack growth can accelerate, leading to potential structural failure.

In conclusion, the research highlights, that microdefects, especially near high-stress zones, significantly increase the risk of structural failure under cyclic loading. Using Paris' law along with FEM and BEM models allows for effective prediction of crack growth, enabling engineers to estimate the lifespan of structural elements. This method can extend the service life of critical components by informing maintenance and repair schedules, ultimately enhancing the safety and durability of engineering structures. Additionally, it provides a framework for improving the design of future structural components to mitigate the impact of cyclic stresses.

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### **EMPOWERING CHANGE: THE IMPACT OF HEALTH EDUCATION ON BIOMEDICAL OUTCOMES IN EARLY-STAGE TYPE 2 DIABETES**

**Purpose.** Implementing lifestyle interventions in the early stage of the disease among patients with T2DM leads to improvements in cardiometabolic parameters, offering long-term health and well-being benefits. This systematic review aims to evaluate the impact of diabetes self-management education (DSME) on key biomedical parameters, including HbA1c, fasting blood glucose (FBG), postprandial blood glucose (PBG), lipid profiles, and body mass index (BMI) among newly diagnosed patients with type 2 diabetes mellitus (T2DM).

**Results.** A comprehensive literature search identified 12 studies published between 2017 and 2022, assessing these parameters. The educational interventions ranged from face-to-face programs to online and hybrid models, often delivered through multi-intervention formats. Across the studies, significant improvements in HbA1c, FBG, and PBG were observed in most intervention groups. Additionally, reductions in BMI and lipid profiles were noted, although less consistently.

**Conclusion.** The findings underscore the critical role of DSME in improving cardiometabolic outcomes during the early stages of T2DM, highlighting the importance of continued education and personalized intervention strategies. Future work should focus on optimizing these educational programs to enhance biomedical outcomes for diabetic patients further.

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## **SCREEN MONITORING BASED ON MATHEMATICAL MODELS AND NEURAL NETWORKS FOR REAL-TIME CONTENT ANALYSIS**

The **aim** of this work is to develop an efficient system for monitoring and analyzing the contents of a screen in real time using a combination of mathematical models and neural networks. The system is designed to detect and classify screen elements, track changes, and provide insights into the screen's dynamic content with high accuracy and low computational overhead.

**Results.** The core task of this research involves the real-time monitoring and analysis of screen content, which requires precise recognition of on-screen elements and tracking their changes. To achieve this, we propose the use of convolutional neural networks (CNN), particularly leveraging architectures like ResNet, MobileNet, or EfficientNet. These pre-trained models are fine-tuned to recognize specific elements within the graphical user interfaces (GUIs), such as buttons, menus, and text inputs. The transfer learning technique is employed to adapt these models to our specific task, allowing the system to perform well even with a limited number of training samples.

To enhance accuracy, image preprocessing techniques, such as scaling, normalization, and noise reduction, are applied before feeding data into the neural network. This preprocessing step helps mitigate the impact of varying screen resolutions, color schemes, and lighting conditions. Additionally, real-time data capture methods are integrated to ensure the system can handle high frame rates and provide near-instantaneous feedback.

Furthermore, the system's architecture is designed to be scalable, supporting different operating systems and display settings, ensuring that it can adapt to diverse monitoring scenarios. By combining mathematical models for content extraction with deep learning for object detection and classification, we aim to build a robust and efficient monitoring tool.

**Conclusions.** The development of real-time screen monitoring systems is increasingly relevant in areas such as software testing, user behavior analysis, and automated interface control. The combination of mathematical models and neural networks provides a powerful tool for solving these tasks, offering significant improvements in terms of accuracy and efficiency. Transfer learning further enhances the applicability of such systems by reducing the need for extensive data collection and computational resources.

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## **THE ROLE OF MOBILE APPLICATIONS IN DEVELOPING LANGUAGE SKILLS IN CHILDREN WITH SPEECH IMPAIRMENTS WHILE LEARNING ENGLISH**

### **Research Objective:**

To evaluate the effectiveness of using mobile applications as a tool for developing language skills in children with speech impairments during English language learning.

### **Research Hypothesis:**

The use of mobile applications in speech therapy contributes to increased motivation for learning, intensification of the correction process, and achievement of more stable results in the development of language skills in children with speech impairments while learning English.

### **Main Theses:**

**Individualization of Learning:** Mobile applications allow for the creation of personalized learning programs adapted to the individual needs and pace of development of each child, increasing the effectiveness of the correction process.

**Variety of Exercises:** A wide range of interactive exercises, games, and tasks provides comprehensive development of all components of speech (phonetics, vocabulary, grammar, communicative skills).

**Feedback:** Instant feedback on completed tasks allows the child to independently monitor the learning process and correct mistakes, contributing to the development of self-regulation skills.

**Motivation:** Game elements, a reward system, and achievements increase the child's motivation to learn and contribute to the formation of a stable interest in learning English.

**Effectiveness in Developing Various Aspects of Speech:** Mobile applications are effective in developing phonemic hearing, pronunciation, vocabulary, grammar, and communicative skills.

**Role of a Speech Therapist:** A speech therapist plays a key role in selecting and adapting mobile applications to the individual needs of the child, as well as in monitoring the learning process.

**Development Prospects:** The further development of mobile applications opens up new opportunities for personalizing learning and increasing the effectiveness of speech therapy.

Mobile applications are an effective tool in speech therapy when learning English.

Their use can increase the effectiveness of the correction process and contribute to achieving more stable results in the development of language skills in children.

However, mobile applications are only a supplement to traditional teaching methods and cannot completely replace the work of a speech therapist.

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## **ANALYSIS AND IMPLEMENTATION OF A BUSINESS CONTINUITY MANAGEMENT SYSTEM**

This paper focuses on the analysis and implementation of a Business Continuity Management System (BCMS) that is compliant with the international ISO 22301 standard. The goal is to develop a system that is easy to adopt in any organization, even if its potential users are not familiar with business continuity terminology. Given the current war in Ukraine, it is essential that companies have a reliable, systematic approach to ensure operational resilience in the face of unforeseen disruptions.

The ISO 22301 standard serves as the foundation for effective business continuity planning, providing a framework for companies to follow to prepare for, respond to, and recover from incidents that could potentially disrupt their operations. Implementing a BCMS ensures that organizations can continue delivering key products and services, even in times of crisis, thereby protecting their assets, reputation and overall viability.

To make the BCMS practical and easily adoptable, the system must be designed with web-based interface. This approach not only simplifies the deployment but also ensures accessibility for all employees. The interface will incorporate straightforward workflows to all sides of “Plan Do Check Act” (PDCA) model.

System must be able to collect and store for later use the following information about analysed organisation: the parts of the organisation to be included in the BCMS, considering its location(s), size, nature and complexity, identify products and services to be included in the BCMS. The organisation shall define business continuity priorities and requirements by distributing questionnaires to key employees who are responsible for those processes. It should be easy to use as the target audience may not have advanced technical knowledge. The following information should be collected:

- activities within organisation that support given activity
- impact over time resulting from the disruption
- identify the time frame within which the impacts of not resuming becomes unacceptable. This is called maximum tolerable period of disruption (MTPD)
- prioritised time frames for resuming disrupted activity at specified minimum acceptable capacity. This time frame can be referred as the Recovery time objective (RTO)
- determine dependencies such as partners and suppliers who’s are not part of organisation.

In summary, the implementation of a BCMS must prioritize key requirements such as a user-friendly, web-based interface, adherence to the ISO 22301 standard, and the ability to collect and store essential data about the organization.



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### **LEARNING AND TEACHING IN THE WORLD AFTER THE WAR**

Learning and teaching in the world after the war is a real challenge for students, parents and teachers. How to do that? How to return to the usual rhythm of studying and put in some effort to make up for gaps in students' knowledge? John Dewey, James B. Conant, Jean Piaget, Edward Lee Thorndike, Paulo Freire have contributed to the understanding of adapting educational processes to new reality after World War II. Ukraine will face similar problems:

- 1) Rebuilding schools;
- 2) Shortage of food, medicine and other basic supplies;
- 3) Not enough teachers;
- 4) To return students in Ukraine;
- 5) Psychological aspect.

Online lessons were not invented in the past. So, double-session schooling (morning and afternoon) and night schools were suggested to students. Due to informational technologies and successful Ukrainian experience with the Unicef program, it is possible to combine offline and online lessons and develop an after war program to help students and teachers to make up for gaps in students' knowledge.

Psychological support for teachers and pupils will be a necessary element of such a developed educational plan because many people are in difficult situations.

Lack of teachers is not only a future problem; it is an actual problem now. In 1950, the Teachers' Training College was established to increase the quantity of specialists. It was housed in the old premises of Anglo-Chinese School at Cairnhill Road. It was an effective way. What can we do in modern society? Interesting solution is used in France, Estonia and some other European countries now. There are different courses which allow specialists in different fields to be able to teach students.

There are also VAPP and VAE programs in France. They are provided by the French government. The aim is to obtain a certification and to have skills recognized. The deficit of teachers is the essential reason to provide alternative pathways to a teaching qualification into the spotlight.

Such educational courses are called initial teacher education (ITE) programs. The advantages of such trainings are shorter period of studying, flexibility and opportunity to be employed during these courses. Such programmes can be developed in Ukraine too.

Finally, realization of this idea will not be possible without motivation and support for teachers.

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### **FORECASTING THE RIPENING PROCESS AND HARVESTING RHYTHMS OF GRAIN CROPS**

Forecasting the process of harvesting grain crops in extreme conditions is always important, because the fate of the grown crop is largely determined by the extent to which the technological and technical readiness to carry out a particular operation will meet the specific conditions of harvesting. The success of planning of harvesting works depends on the weather forecast, properties of bread mass, stubble condition, sowing dates and maturation of grain crops, as well as the number and composition of machinery, professional skills of agronomic, technical services of agricultural enterprises and qualification of mechanizers. Forecasting is the first, initial stage of planning. The difference between planning and forecasting lies in the nature of output information: directive nature of planned inormatsii and orienting nature of forecasting. Economic, technical, technological and organizational transformations that take place in agricultural production require scientific forecasting of the harvesting operations, ensuring the minimization of the probability of crop losses and deterioration of the quality of products, as well as creating conditions for the timely conduct of post-harvest tillage operations for the next year's harvest. Scientific and technical progress in the development of harvesting equipment and machine technologies, the development of energy-intensive, high-performance and, consequently, more expensive equipment increase the dynamism of the harvesting process, and the forced downtime of equipment leads to an increase in the cost of products and possible losses. The expected situation in harvesting is always associated with elements of uncertainty. The main task of forecasting is to identify trends, the logic of the process development, which ultimately reduces the impact of uncertainty of the future situation on the result of management decisions. Mathematical methods of research of technological operations of the harvesting process allow to choose optimal or rational variants of solutions of assumed rates of harvesting operations, applied technologies and types of equipment. However, mathematical methods are of little use if inaccurate input data are used. Therefore, the task of scientific forecasting is to provide decision makers with accurate information about what and under what conditions can happen in the expected future. Creative activity of managers of modern agronomic and engineering services in the management of technological processes of harvesting under conditions of uncertainty is extremely labor-intensive and complex. Every situation in grain harvesting is uncertain to some extent. It is impossible to accurately determine in advance the quantitative and qualitative indicators of a particular harvesting operation, the pace of their implementation, the state of the weather (there will be precipitation or not) and stalks (drooping or lodged, ripened to technological ripeness or overripe). Technical readiness of machines, their reliability and availability of fuel and lubricants have a significant impact on the expected pace of harvesting operations.

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## **FORECASTING THE VOLTAGE OF THE POWER GRID OF ENERGY FACILITIES USING MACHINE LEARNING METHODS**

Over the past decade, neural networks have taken a leading position among machine learning tools that are widely used to solve applied problems in many industries. In this paper, we will consider the use of these networks to solve the actual problem of predicting the parameters of power systems. The subject of this paper is voltage forecasting at transformers of power facilities.

Stable and uninterrupted operation of power grids is vital for the functioning of society and industry. Malfunctions or overloads in power grids can have significant negative consequences for household consumers and businesses, causing production interruptions and economic losses. In this regard, there is a need to use modern methods to predict the parameters of energy systems, which makes this topic particularly relevant. One of the most effective tools for solving these problems today is neural networks.

Neural networks are able to adaptively learn from large data sets, analyze complex relationships between variables, and provide forecasts with high accuracy. Due to the flexibility of their architecture, they can efficiently process various types of data and detect hidden patterns, making them an ideal tool for modeling complex processes.

Problem statement. We have input data that includes historical voltage readings at the transformers of a hydroelectric power plant and related meteorological indicators such as temperature, wind speed, cloud cover, and precipitation. The task is to build a neural network model to predict future voltage values at the same transformers. Previous voltage values are used to train the model, and an attempt is made to take into account weather factors that may also affect the result. A preliminary analysis of the training sample allows to improve the forecast accuracy by identifying additional dependencies, such as seasonal or weekly influences, etc. An important step is to optimize the model parameters, such as the number of layers, the number of neurons in each layer, and the activation function, which improves the overall quality of the forecast.

In the course of solving the research problem, it was found that for the selected data set, meteorological indicators alone do not have a significant impact on forecast accuracy, and in some cases their use can worsen the results. The best forecasting accuracy is provided by the use of seasonal patterns in the data together with previous voltage values. Evaluation of the modeling results allows us to conclude that neural networks are a powerful tool for forecasting complex systems, such as power grids.

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## **REAL-TIME IMAGE SEGMENTATION FOR AUTONOMOUS VEHICLES**

Real-time image segmentation is crucial for ensuring the safety of autonomous vehicles (AVs). It involves identifying objects on the road, such as pedestrians, vehicles, and obstacles, to enable reliable and responsive driving. High accuracy and processing speed are essential for effective real-time performance under changing environmental conditions.

Deep neural networks like U-Net, SegNet, and DeepLab are commonly used for image segmentation. Each architecture has unique advantages. U-Net's symmetric structure enhances accuracy, SegNet efficiently uses resources for semantic segmentation, and DeepLab retains context at different scales.

The main challenge is to balance accuracy with real-time processing under limited computational resources. Optimization methods like quantization and pruning help to make these models suitable for embedded systems.

**Results.** In our research, we applied a mathematical model for real-time image segmentation based on optimizing convolutional neural networks (CNNs) to achieve high accuracy and low latency. The segmentation process can be represented as a minimization problem for the function:

$$J(\theta) = \frac{1}{N} \sum_{i=1}^N L(f(x_i; \theta), y_i) + \lambda R(\theta),$$

where  $J(\theta)$  is the cost function,  $L$  represents the loss between the predicted segmentation and the ground truth,  $f(x_i; \theta)$  is the output of the neural network given input image  $x_i$  and parameter  $\theta$ ,  $y_i$  is the ground truth label, and  $R(\theta)$  is the regularization term weighted by  $\lambda$ . This approach helps to balance the model complexity and prevent overfitting, crucial for real-time performance on embedded systems.

We also introduced an iterative optimization process like Rothe's method to adaptively adjust the network weights for segmentation accuracy. The convergence of the solution was evaluated by considering the upper and lower bounds of accuracy metrics, and the iterative process was continued until the desired accuracy level was achieved.

**Conclusions.** The proposed real-time image segmentation method for AVs provides a balance between segmentation accuracy and processing efficiency, making it suitable for embedded applications in autonomous vehicles. By optimizing the network structure and utilizing modern techniques for reducing model complexity, we ensure the system's reliability even in challenging conditions, such as poor lighting and adverse weather. This work contributes to the development of safer and more efficient autonomous driving technologies.

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## **THE RELEVANCE OF TEACHING OSINT TECHNOLOGIES IN THE TRAINING OF LAW ENFORCEMENT SPECIALISTS IN THE CONTEXT OF MODERN SECURITY CHALLENGES**

**Purpose.** The purpose of this article is to explore the relevance of teaching Open-Source Intelligence technologies (OSINT) in Law Enforcement training, especially in the context of modern security challenges such as cybercrime, terrorism and organized crime. The study highlights how OSINT training can enhance law enforcement officers' digital literacy, analytical skills, and investigative capabilities, preparing them to effectively counter modern threats.

**Results.** The integration of OSINT technologies into law enforcement curricula provides future professionals with the critical skills needed to navigate and analyze vast amounts of open-source data. Such education fosters analytical thinking, allowing cadets to filter and evaluate digital information and apply OSINT tools in real-world situations such as digital investigations and social media monitoring. OSINT technologies are already being implemented in such disciplines as "Information Support of Professional Activity", "Investigative Work of Criminal Police Units", "Agent and Operational Work", "Informational and Analytical Support of Criminal Police Units", "Search for Information from Open Sources (OSINT) by Criminal Police Officers", "Use of Criminal Analysis by Criminal Police Units" of the specialty 262 "Law Enforcement".

The active introduction of OSINT technologies into the subject matter of educational disciplines for law enforcement professionals demonstrates the understanding of the importance of these intelligence technologies in our time. However, there is a need to prepare high-quality educational materials and flexibility of topics in accordance with rapidly changing digital technologies. Within these disciplines, depending on the hours of workload, cadets study the history of OSINT development, the benefits and challenges of using OSINT, the national experience of using OSINT in law enforcement, the Berkeley Protocol on conducting investigations using open digital data, the experience of Bellingcat digital investigations, basic and specialized OSINT tools and resources.

**Conclusions.** Teaching OSINT technologies is important for preparing law enforcement professionals for modern security challenges. The inclusion of OSINT in the curriculum improves investigative skills, provides police officers with the digital literacy they need today and develops critical thinking when working with digital intelligence. By focusing on both practical applications and ethical aspects, law enforcement institutions can ensure that their graduates are better prepared to use OSINT technologies, which will contribute to more effective and safe law enforcement in line with today's requirements.

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**ADAPTATION OF METHODS OF TEACHING NATURAL  
AND MATHEMATICAL DISCIPLINES IN THE POST-WAR CONTEXT:  
CHALLENGES, OPPORTUNITIES AND PROSPECTS**

Challenges and possibilities of adapting methods of teaching natural and mathematical disciplines in the post-war period are investigated in these. Particular attention is paid to the implementation of digital technologies, support of psychological well-being of students, development of innovative skills and international cooperation in education. The results of the study emphasize the need to integrate modern approaches to the restoration and modernization of the educational system.

War always has a devastating impact on society, and the education system is no exception. In the post-war period, the restoration of the education system became a priority for the state. This is due to the fact that education is an important tool for the formation of a new generation capable of rebuilding the country and the economy. In this context, an important question arises of adapting teaching methods, especially natural and mathematical disciplines, to new social, economic and technological conditions.

The main goal of this study is to analyze the current challenges and opportunities facing the education system, in particular in the field of teaching natural sciences and mathematics in the post-war period. The focus is on adapting teaching methods to new conditions, such as changes in educational materials and technological infrastructure, the psychological state of students and teachers, as well as rapidly changing requirements for skills and knowledge. It is also important to consider the role of technology, inclusive methods and international cooperation in the effective restoration and development of the educational process in the post-war world.

The first and greatest problem in post-war natural science education was changes in the material and technological infrastructure. Many schools, universities and research institutes have been destroyed or damaged, making it difficult to conduct practical classes. The solution to this problem is the active introduction of digital technologies in the educational process. Virtual labs, interactive simulators, and other digital tools can partially compensate for the lack of physical labs and give students the practical experience they need. Such technologies help students develop skills in solving real-world problems using virtual resources and meet the demands of today's digital world.

Another important factor is the psychological state of students and teachers. War causes serious psychological trauma and affects the ability of students to absorb information and their willingness to learn. Teachers should be ready not only to transfer knowledge, but also to maintain the psychological state of students, to create a positive and safe learning environment. To do this, it is important to use inclusive teaching methods that take into account the various psychological and emotional needs of students. This includes an individual approach to each student, the flexibility of the curriculum and the maintenance of the spirit of the class.

The third challenge is rapid changes in the necessary knowledge and skills. Post-war modern society needs specialists who can quickly adapt to new technologies and challenges. The fields of natural sciences and mathematics are particularly important as they form the basis for scientific thinking, analysis skills and critical thinking. In this context, education should be aimed not only at acquiring basic knowledge, but also at developing skills in solving real problems, innovative thinking and creativity. To do this, it is necessary to revise the curriculum and introduce new interdisciplinary approaches that can integrate knowledge from different disciplines.

Particular attention should be paid to international cooperation in the field of education. The post-war period opened up opportunities for integration into the international educational community, exchange of experience and implementation of best practices in the field of natural science and mathematical education. Another important aspect is attracting international support to restore educational infrastructure and improve the skills of teachers.

Adaptation of methods of teaching natural sciences and mathematics in the post-war world is a prerequisite for the restoration of the education system. The introduction of digital technologies, inclusive methods and interdisciplinary approaches can help build the capacity needed to meet new global challenges. International cooperation and exchange of experience can help accelerate the process of restoring educational infrastructures and improve education. As a result of this process, it will be possible to achieve not only the restoration, but also the modernization of the education system, which will become the basis for the development of the country's scientific potential.

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### **THE DEVELOPMENT OF AN ANDROID APPLICATION FOR ANALYZING THE IMPACT OF MOBILE APPLICATIONS ON A PERSON'S EMOTIONAL WELL-BEING**

In the modern world, phone usage has become a routine part of human life. Every day, we use a lot of applications on our devices. The average user receives a massive stream of data from news, social media, advertisements, and etc. However, no one considers how much this data impacts users' emotional well-being.

**The purpose** of my work is to develop an Android application and system to track a person's emotional state while consuming content. The app will collect data to calculate the correlation between time spent consuming content, the user's gender, age category, and more.

**The results** of my work is the development of an Android application and system for analyzing a person's emotional state through surveys, as well as building a data collection system using a serverless architecture to conserve resources. The application shows various pre-prepared content, which is randomly selected. Before each session, a survey is conducted to estimate the user's current state and approximate time spent on or off the device. After a survey for a certain period (n), pre-prepared content is displayed, then a repeated survey about the user's state.

The development of the application includes technologies such as the Android SDK, the Kotlin programming language, and SQLite for working with a local database. Kotlin Coroutines are used to manage threads and handle access to the local database and network. For managing images and local storage, I use Coil. Koin was chosen for more flexible dependency injection. A serverless architecture with Firebase Realtime Database and Firebase Remote Config. Built-in Firebase ABTesting mechanisms such as Remote Config are used to analyze different content and audience segmentation. The application architecture is based on current mobile development trends, specifically declarative UI (Jetpack Compose), which is why the MVI (Model-View-Intent) architectural pattern was chosen.

**Conclusion.** An Android application and a system have been developed that provide flexibility for conducting various types of surveys and supporting different kinds of content. This will allow us to analyze the correlation between a person's emotional state and the time spent consuming specific types of content. The results of my work can be applied in the practice of developing Android applications and survey systems.



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## **EVALUATION OF MODERN METHODS FOR OPTIMIZING WEB PAGE LOADING SPEED**

In today's world, web page loading speed is a critical factor for ensuring a positive user experience. Research shows that a delay of a few seconds can lead to significant drop-offs in user engagement and increased bounce rates, particularly on mobile devices. Websites that perform poorly in terms of speed not only risk losing potential customers but also suffer from lower search engine rankings, as major platforms like Google prioritize speed in their algorithms.

The aim of this research is to assess the effectiveness of modern methods for optimizing web page loading speed, analyze their advantages, disadvantages, and their impact on overall user page loading speed. The study also aims to identify which strategies provide the best balance between technical complexity, implementation cost, and performance gains.

The research includes a thorough review of key optimization tools and technologies, including Content Delivery Networks (CDNs), lazy loading, image compression, and code minification. Specific attention is given to caching techniques and the potential performance benefits of using them.

Performance metrics were gathered using established tools such as Google Lighthouse and GTmetrix. These tools provided insights into critical performance indicators like First Contentful Paint (FCP), Largest Contentful Paint (LCP), Time to Interactive (TTI), and Cumulative Layout Shift (CLS).

The study revealed that image optimization using modern formats (WebP, AVIF) can reduce file sizes by 30-50%, significantly impacting loading speed. Using Content Delivery Networks (CDNs) helps reduce latency, especially in regions far from the origin server. Other methods, such as asynchronous script loading and lazy loading for images, were effective in enhancing the Time to Interactive (TTI) metric.

Despite the clear benefits, there are trade-offs to consider. For small websites or startups, the cost of implementing a CDN or adopting more advanced techniques like server-side rendering (SSR) may outweigh the performance gains, especially in the early stages.

This study confirms that optimizing web page loading speed requires a thoughtful, multi-faceted approach. By combining strategies such as image optimization, CDN usage, lazy loading, code minification and caching, websites can dramatically improve performance, which in turn boosts user engagement, search engine rankings, and conversion rates. However, it's crucial to tailor optimization methods to the specific needs of each project, balancing technical complexity, cost, and user experience.

Modern optimization techniques should also include the use of AI for predictive content loading, to further enhance the speed and efficiency of web applications in a rapidly evolving digital landscape.

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### **THE USE OF ICT FOR THE DEVELOPMENT OF DIDACTIC MATERIALS IN PHYSICS**

The use of Information and Communication Technology (ICT) for the development of didactic materials in physics offers significant advantages in enhancing both teaching and learning processes. ICT tools make it easier to visualize complex physical phenomena, create interactive and engaging lessons, and provide personalized learning experiences.

ICT can be effectively used to create engaging and interactive physics lessons. Using platforms like YouTube or resources like TED-Ed, teachers can incorporate videos and animations into their lessons to explain topics like black holes, electromagnetism, or wave-particle duality. These visual tools make abstract ideas clearer. Teachers can create multimedia presentations that include videos, animations, and clickable diagrams. Tools like Microsoft PowerPoint and Prezi help to make lessons more engaging by adding visual context to formulas or theoretical explanations.

PhET Interactive Simulations are free online tools that allow students to explore various physics concepts, such as motion, electricity, and waves, through hands-on virtual experiments. These simulations help students visualize abstract principles and experiment in a safe, controlled environment. Algodoo is a 2D physics sandbox where students can create and interact with physics experiments, observing how forces, friction, and gravity influence objects. It provides an intuitive way to understand mechanics.

Platforms like Labster or PhET offer virtual labs where students can perform experiments that would be difficult or impossible in a typical classroom. For example, virtual labs can simulate nuclear reactions or large-scale astronomical observations, offering an immersive learning experience.

OpenSource Physics (OSP) provides interactive tools to model physics phenomena, helping students conduct experiments and visualize processes such as projectile motion, energy conservation, and more.

Applications like Google Expeditions and Merge Cube allow students to explore 3D models of physics phenomena. For instance, students can use AR to explore the solar system or the structure of atoms in real-time, giving them a better grasp of spatial relationships. VR platforms, such as Labster or specific VR-enabled classrooms, let students engage in fully immersive labs. They can walk through a 3D space, manipulate objects, and observe real-time reactions, offering a more interactive approach to learning physics.

Tools like Microsoft Excel, Google Sheets, and Graphical Analysis software (such as Vernier) can be used to record, analyze, and visualize experimental data. For example, students can plot graphs of speed versus time in a mechanics experiment, helping them understand relationships between variables. Programs like Tracker allow students to track and analyze the motion of objects in videos, turning real-world events into quantifiable data. This is especially useful for mechanics and kinematics lessons.

Teachers can encourage students to participate in online physics communities like StackExchange Physics or Reddit's physics, where they can ask questions, solve problems, and engage with a global community of physics learners.

Platforms like Kahoot! or Quizlet can be used to turn physics concepts into interactive games. For example, students can participate in quizzes about Newton's Laws or energy conservation, promoting a fun and competitive learning atmosphere. There are apps like Physics Puzzle Games or apps like "Crazy Machines" that allow students to explore concepts such as mechanical advantage, energy conservation, and forces through game-based learning.

By integrating ICT into physics education, teachers can create dynamic, interactive, and effective learning materials that cater to different learning styles and enhance student engagement. These tools not only help students understand difficult concepts but also encourage deeper exploration and independent learning.

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### **IMPORTANT PREDICTORS OF PHYSICAL ACTIVITY IN PATIENTS WITH HEART FAILURE IN A HOSPITAL IN TIRANA**

**Purpose:** The study purpose was to evaluate the level of physical exercise engagement among patients with heart failure (HF), identify associated parameters, and explore barriers and motivations for such activity. This study utilized a cross-sectional design. The research was conducted from July 2023 to February 2024 at University Hospital Centre "Mother Theresa" in Tirana, Albania. The study included a total of 90 male and female patients diagnosed with heart failure. Upon obtaining informed written consent, documentation was made regarding the patients' age, sex, BMI, education level, duration of heart disease, and presence of co-morbidities. Patients diagnosed with heart failure (HF) participated in a survey containing inquiries regarding their physical activity levels, obstacles hindering their activity, and potential motivators. The survey questions were modelled after the Short Form-International Physical Activity Questionnaire. Data analysis was performed with SPSS 25.0.

**Results.** The average age of patients was  $67.9 \pm 20.96$  years, with an average BMI of  $26.1 \pm 4.49$  kg/m<sup>2</sup>. There was a predominance of males, accounting for 65 cases (62.04%), while females accounted for 25 cases (37.96%). The most prevalent comorbidity identified was hypertension (HTN) in 47 instances, with diabetes mellitus (DM) present in 22 cases and kidney disease in 21 cases. 54 patients (59.9%) had an educational background, while 36 cases (40.1%) were illiterate. Of the total patients, 26 (29.2%) had low levels of physical activity, 42 (46.7%) had moderate levels, and 22 (22.6%) had high levels of physical activity. A robust correlation existed between higher exercise levels and levels of education, self-efficacy, and motivation in all instances. Psychological factors were identified as the primary motivator for regular physical activity by over half (59.4%) of respondents, with 31.4% citing physical factors and 23.4% citing social factors.

**Conclusion.** The research identified that 35% of individuals with heart failure did not participate in any physical activity on a daily basis. Patient education, self-esteem, and motivation play a greater role than disease or symptom severity in counselling patients with HF on physical activity. Age, body mass index (BMI), and distress symptoms were all found to be significant predictors of lower levels of physical activity in individuals diagnosed with Heart Failure.

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### **BUSINESS ANALYSIS AND MODELLING OF DECISION-MAKING PROCESSES IN PROJECT MANAGEMENT**

The **purpose** of the paper is to identify the decision-making patterns relevant to IT outsource-oriented projects, which dominate in the Ukrainian IT sector. The study aims to create a template that aligns with the entire lifecycle of a product, project or a specific feature, guiding the business analysts (BA) or the other roles who perform BA-activities through each phase of decision-making.

**Results.** To achieve this goal, an in-depth analysis of several popular techniques used by business analysts in IT companies was conducted. These techniques include:

- SWOT Analysis: a structured methodology used to evaluate the strengths, weaknesses, opportunities, and threats in project planning. It offers valuable insights but can lack detail when applied to complex IT projects.
- Decision Modelling: this method focuses on understanding and mapping out decision logic throughout a project's lifecycle. It provides clarity and supports critical decision points, making it a highly adaptable and relevant tool.
- BPMN (Business Process Model and Notation): a graphical representation of business processes that assists in visualizing workflows and processes. It enhances collaboration but might require deeper technical expertise.
- UML Diagrams: Unified Modelling Language diagrams offer robust visualization for system architecture and components. While useful, their technical focus may not always align with the high-level decision-making required in IT outsourcing.

**Conclusions.** Each technique was examined for its strengths, weaknesses, and specific applicability to the decision-making needs of IT outsourcing projects. Based on this analysis, Decision Modelling was found to offer the most comprehensive solution, effectively covering critical phases of project management while providing a clear decision-making framework.

Decision Modelling provides an adaptable and clear framework that maps decision points across the entire product lifecycle, ensuring consistency and strategic alignment. This method not only enhances decision clarity but also improves communication between stakeholders, ultimately leading to more effective project outcomes. As a key criterion for choosing this technique, I can emphasize that it can be used for the automation of more or less regular processes in the projects.

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**INTEGRATION OF UKRAINIAN EDUCATION INTO THE EUROPEAN AREA:  
FORMATION OF PROFESSIONAL PROPERTY MANAGEMENT COMPETENCES  
IN FUTURE CONSTRUCTION SPECIALISTS**

RICS (The Royal Institution of Chartered Surveyors) – is an international organization that combines real estate specialists of various profiles. The organization is the most influential, oldest and privileged professional association in the world that represents the interests of real estate management and appraisal experts, realtors, developers, engineers, builders, land management experts and other professions.

The main purpose of the community is the development and monitoring of compliance with ethical norms and professional standards. RICS is also actively engaged in educational activities, develops and implements quality standards and practical recommendations in the field of real estate. The manual contains a number of practical provisions mandatory for appraisers in 21 specializations.

In the process of searching and determining the value of real estate, the appraiser collects information about market prices. Note that this is a much more complex problem than collecting information about the value of shares or government securities on the stock exchange. In the real estate market, there is no single place for trade transactions, and they take place constantly in all regions. Returning to real estate, let's point out the fact that each of its objects is practically unique; its characteristics, special location, confirm that there is no other property exactly like it. And the difference is inevitably reflected in possible adjustments to the price, if we are talking about the value of a similar, but still different real estate - this is already a matter of the individual skill and experience of the appraiser, rather than a clearly verified algorithm. With this in mind, different appraisers will often express different views on the assessment of the market value of the same real estate object.

Conclusion. Therefore, it would be good to have the opportunity to study in the master's degree at the department of construction organization and labor protection of OSACEA with the issuance of certificates of the British Royal Association of Certified Real Estate Managers (RICS) to graduates of the master's degree in the educational and professional training program of the master's degree “Management of construction projects”. This accreditation would be confirmation of the high level of master's training and the quality of educational programs that can be implemented at the department of construction organization and labor protection of OSACEA. On this basis, graduate diplomas would be recognized in more than 140 countries around the world where there are RICS branches.

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### **BRAIN DRAIN OF HEALTH CARE PERSONNEL IN ALBANIA, DETERMINANTS AND MITIGATING FACTORS**

**Purpose.** Migration of health workers 'Brain drain' is defined as the movement of health personnel in search of the better standard of living and life quality, higher salaries, access to advanced technology and more stable political conditions in different places worldwide. In Albania the migration of health care personnel has become a recent trend.

Various factors have a significant impact on this phenomenon, thus it is important to try to explore these factors so that the brain drain turns into brain gain. The aim of the study is to evaluate the causes and incentives on migrating of health care students in order to build a Brain Drain Reversal Strategy. This is a mix methods study conducted in 2023 focusing in students of health care professions in Vlore city, respectively in University of Vlore and Reald University College.

The participants responded to an online questionnaire to understand their intentions about staying in the country. The participation was voluntary and the participants were anonymous.

**Results.** 143 nursing students in two main universities in the city of Vlore agreed to answer the questionnaire.

44.1% agree that if they migrate, their life would be better, half think that working abroad helps them to make more money, 28% do not agree that living and working in Albania would help their career, 38% think that if they work abroad their job would be more satisfying, 35% think that the time spent in Albania is not a waste of time, 41% state that they would like to work abroad and this will make them more happy, 43% think that living abroad will increase their life standards, 41% would like to live in a country with more freedom of speech, 32% would endure difficulties in order to live abroad.

**Conclusions.** The trend to leave the country is present among students. Nursing students want to leave the country to find better working conditions, freedom, happiness and job satisfaction.

## **STRUCTURED LLM’S OUTPUT RESEARCH**

The goal of this work is to analyze development of the financially oriented AI-assistant with the possibility of structured information output and program management based on non-formal user’s request. To achieve the set goal during research, the following tasks were completed:

- conduct a review and analysis of the current state of the task of developing AI assistants with the possibility of structured information output;
- investigate natural language processing methods for transforming informal queries into formal function calls;

Beyond the technical implementation, during our research, we observed a key challenge: overloading a large language model with too many tools can sometimes result in the model calling an excessive number of functions and in illogical sequences. This leads to inefficiency and inaccurate responses. Additionally, we dedicated significant effort to understanding the "character" and behavior of the chosen large language model. We have carefully wrote prompt with special instructions which will help the model understand planning and logical reasoning, similar to a human.

An important breakthrough during our study was the development of a multilingual system that supports over 100 languages, ensuring the assistant's versatility across global markets and industries.

Moreover, we implemented template functions—predefined tools that the AI can select from, depending on the query—allowing for an adaptable and dynamic response to user requests, in simple words, such template functions will act as tools for our language model, which in turn will be selected from the entire list of available ones and submitted for further possible use.

Getting back to the technical part, we managed to achieve complete clarity on how to create an AI-assistant with structured output. We decided to use the advanced retrieval-augmented generation system, which prevents the language model from being overloaded with multiple functions in a single query. Basing on leading ratings such as MTEB and Open LLM Leaderboard 2 by HuggingFace, we carefully selected the optimal models for retrieval-augmented generation and large language model.

Thus, our approach to developing a financial AI assistant with the ability to structured output allows us to effectively combine retrieval-augmented generation and large language model, providing scalability in terms of the number of functions and support for multiple languages. Thanks to this, our AI assistant will not only be accurate and smart, but also capable of multitasking, planning and logical thinking, which makes it a universal tool for a wide range of financial daily routine. From the other hand, we understood that in current state AI-assistants highly depends on functions we wrote, because it is not able to understand and write code as human, therefore was decided to simplify this task to well-known function calling task.



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## **GENERATING SPHERICAL VOID STRUCTURES IN BOUNDED 3D-DOMAINS**

In recent years, optimizing the topology of 3D printed products has become increasingly important, as it allows for the creation of products with minimal weight, increased strength, and material savings. In this paper, we consider the generation of spherical cavity structures in bounded three-dimensional domains as one of the key methods for optimizing the topology of products during their 3D printing.

The main goal of the study is to develop algorithms that allow optimizing the internal structure of the product, in particular through the introduction of spherical cavities that reduce the weight of the structure without losing the mechanical properties required in each situation. Such cavity structures can effectively reduce the cost of materials and time for 3D printing, while improving the operational characteristics of products.

**Objective.** The task is to develop an algorithm for generating spherical cavities within the given 3D domains, taking into account the technological limitations of 3D printing. Particular attention is paid to optimizing the location of the cavities in space in such a way as to reduce the weight of the product while maintaining its strength at a certain acceptable level.

A combination of numerical topology optimization methods and geometric algorithms is used for modeling. The main emphasis is placed on the uniform placement of cavities in the product structure to avoid local overloads and ensure mechanical stability. The algorithms also take into account the peculiarities of additive technologies, such as minimum wall thickness and the need to support structures during printing.

The studies have shown that the use of spherical cavity structures can significantly optimize the topology of a 3D printed product. The results demonstrate that properly positioned cavities can significantly reduce the weight of the product while providing the required mechanical characteristics. The algorithms have also shown high efficiency in minimizing material costs and time for manufacturing products.

Thus, the generation of spherical cavities in 3D structures is a promising approach for optimizing the topology of products printed using additive technologies, providing high process efficiency and improved mechanical properties of the final products.

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### **OCCUPATIONAL HEALTH AND SAFETY**

**Purpose:** As defined by the World Health Organization (WHO) “occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. Occupational health is a multidisciplinary field of healthcare concerned with enabling an individual to undertake their occupation, in the way that causes least harm to their health. It aligns with the promotion of health and safety at work, which is concerned with preventing harm from hazards in the workplace. The quality of occupational safety is characterized by: the indicators reflecting the level of industrial injuries, the average number of days of incapacity for work per employer, employees' satisfaction with their work conditions and employees' motivation to work safely. Given the high demand in society for health and safety provisions at work based on reliable information, occupational safety and health (OSH) professionals should find their roots in evidence-based practice.

**Results.** Healthcare workers are exposed to many hazards that can adversely affect their health and well-being. Long hours, changing shifts, physically demanding tasks, violence, and exposures to infectious diseases and harmful chemicals are examples of hazards that put these workers at risk for illness and injury. Musculoskeletal injury (MSI) is the most common health hazard in for healthcare workers and in workplaces overall. Improvement of patient safety is currently receiving increasing interest in healthcare organizations, but so far the focus has largely been on improving routines and introducing new equipment.

**Conclusion.** Social phenomena, such as the organizational climate, may help to explain the emergence of social behavioral norms and may thus have large influence on staff priorities and behaviors that may affect both patient and staff safety.

Researchers have also emphasized the importance of taking different levels of the care system into account in interventions for better patient safety. In healthcare, such priority would be further enhanced by professional cultures where the professionals are ultimately guided by ethical norms of ensuring patients' health and well-being.

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## **OPTIMAL MANAGEMENT OF AN INVESTMENT PORTFOLIO IN CONDITIONS OF UNCERTAINTY**

Investing in securities is one of the most attractive and interesting tasks in the field of finance. It not only offers the opportunity to increase capital but also helps develop strategic thinking, anticipate market trends, and find ways to minimize risks. The correct choice of assets is a key factor for success. It is important not only to select stable and promising assets but also to follow the principles of diversification, spreading investments across different instruments to minimize the risks associated with each of them.

One of the main challenges for a securities portfolio owner is that the financial asset market is quite unpredictable and can change under the influence of various economic, political, and social factors. Therefore, an important task for the investor is not only to form a portfolio with the desired characteristics of return and risk but also to regularly adjust its structure to reduce risks or, conversely, to take advantage of new opportunities in the market.

Managing an investment portfolio requires not only knowledge and experience but also constant market analysis to timely select promising assets. That's why mathematical methods used in asset management are an important tool for effective investing in conditions of uncertainty.

Portfolio management involves making decisions about changing the portfolio's structure based on the analysis of a large amount of data. In addition to assessing the historical returns of assets, the analysis can include evaluating volatility, correlations with other assets, and the probability of future value changes. Multi-criteria analysis can be used for this, helping to evaluate assets based on several parameters at once, including returns, risk, liquidity, and more. The Markowitz model helps determine the optimal portfolio structure based on the principle of diversification, while other optimization methods allow real-time portfolio adjustments, taking current market conditions into account.

This paper examines the application of decision theory and optimal management methods. A corresponding mathematical model in the form of a stochastic process is used to build a management strategy that considers not only current conditions but also possible future market changes. This allows the investor to adapt their actions regarding buying or selling assets at each stage of investing and to balance current costs with future returns.

Thanks to modeling, investors can quickly respond to market changes, reduce risks, and find new growth opportunities, making the investment process not only profitable but also more predictable and controllable.

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**QUANTUM LEAP IN EDUCATION: HOW TO COMBINE TRADITIONAL  
PEDAGOGY WITH VIRTUAL REALITY  
TO RESTORE STUDENTS' MENTAL HEALTH**

The modern world is changing rapidly, and technology is becoming an integral part of our daily lives. One of the most promising innovations is virtual reality (VR), which opens up new opportunities in the field of education.

Virtual reality can become not just a tool for learning but also a means of restoring students' mental health, especially for those who have suffered from traumatic events or crises such as military conflicts or natural disasters. This article explores how to combine traditional pedagogy with virtual reality to develop a holistic learning system that not only aids knowledge acquisition but also supports students' emotional well-being.

The school environment is a place where children spend a significant portion of their lives. It should be safe, stable, and supportive for students. However, many children face various challenges that affect their mental health:

**Traumatic experiences.** Children who have witnessed war, violence, or other crises often need special help to overcome their emotional traumas.

**Social isolation.** After the COVID-19 pandemic and other restrictions, many children experience a lack of social interaction, which also affects their emotional state.

Academic overload. Traditional teaching methods often do not take into account the individual needs of students, which can lead to stress and burnout.

Therefore, it is crucial to find new ways to support children's mental health, and here, virtual reality technology can help by creating unique environments for learning and therapy.

Fostering creative thinking. Virtual reality stimulates imagination and creativity, giving students the opportunity to develop innovative thinking through creating virtual projects and solutions.

Virtual environments for relaxation. Virtual reality can be used to create calming and relaxing spaces where students can take a break from academic pressures or cope with emotional states related to trauma. These can include virtual landscapes of nature, meditation spaces, or interactive relaxation sessions.

Empathy training. Virtual reality allows students to experience different social situations, helping them develop empathy and social skills. Such training can be particularly useful for children who struggle with communication or social adaptation after crises.

Maintaining the value of personal interaction. It is important to remember that live interaction between student and teacher is irreplaceable. Virtual reality can only complement this process, providing interactive opportunities for a deeper understanding of the material, but it should not completely replace real-life interactions. Virtual reality holds immense potential for the educational process and for restoring students' mental health. Its integration with traditional pedagogy can provide an effective and holistic approach to learning and supporting emotional well-being. It is essential that these technologies are used not as a replacement but as a supplement to traditional teaching methods, creating a multifaceted learning environment that meets modern challenges.

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## **EVALUATING THE EFFICACY OF PSSE- SCHROTH METHOD AND GENERAL EXERCISES IN HALTING THE PROGRESSION OF ADOLESCENT IDIOPATHIC SCOLIOSIS**

**Purpose.** Adolescent idiopathic scoliosis (AIS) is a prevalent spinal condition that typically requires intervention to avoid further curve progression. The PSSE-Schroth method has been suggested as a conservative treatment, but more research is needed to confirm its effectiveness. The purpose was to assess the effectiveness of the PSSE-Schroth method compared to general exercises in slowing the progression of adolescent idiopathic scoliosis in clinical trial study design. In total of 30 participants with adolescent idiopathic scoliosis were divided into two groups: 15 in the PSSE-Schroth group (13 girls, 2 boys, mean age 12.1 years) and 15 in the control group (12 girls, 3 boys, and mean age 11.9 years). The PSSE-Schroth group received treatment five times per week, both at home and in Trauma Hospital. The control group participated in general exercises. Inclusion criteria included a Cobb angle of 10-25 degrees, a Risser sign between 0-3, and an angle of trunk rotation (ATR) greater than 5 degrees. Outcomes were assessed using a scoliometer and Rx by measuring changes in the Cobb angle before and after the intervention. Progression or improvement was determined by changes of more or less than 5 degrees. The follow-up period lasted 6 months.

**Results.** In a clinical trial assessing the effectiveness of the PSSE-Schroth method versus general exercises for adolescent idiopathic scoliosis, 30 patients were divided into two groups (15 patients per group). In the PSSE-Schroth group, 60% of patients remained stable, 26.67 % showed improvement, and 13.33% worsened. In the control group, 26.67 % remained stable, 6.67 % improved, and 66.67 % worsened. A chi-squared test revealed a statistically significant difference between the two groups ( $P = 0.0108$ ), demonstrating that the PSSE-Schroth method was more effective in preventing scoliosis progression compared to the control group. This result highlights the superior efficacy of the PSSE-Schroth method in managing adolescent idiopathic scoliosis.

**Conclusion.** This study suggests that the PSSE-Schroth method is effective in reducing the progression of adolescent idiopathic scoliosis. These findings align with previous research, showing the PSSE-Schroth method's superior effectiveness compared to general exercises.

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### **AUTOMATIC GENERATION OF SOFTWARE REQUIREMENTS BASED ON USER FEEDBACK USING NATURAL LANGUAGE PROCESSING ALGORITHMS**

The **aim** is to study and develop an automatic software requirements generation approach based on user feedback analysis using NLP algorithms. Gathering requirements and determining the necessary changes to achieve the business goals of software are the most relevant topics in the development process. At the same time, this process is often quite complex, especially at the product improvement stage, when the main functionality is already defined and developed. Still, the team faces improving existing software and defining new software functions.

Thus, our approach will speed up the processing and formation of requirements by avoiding much manual work and eliminating subjectivity in formulating requirements and their interpretation.

**Results.** Advanced natural language processing algorithms are used to achieve this goal. The first stage is the preliminary processing of the text (feedback from software users). Part of the processing is tokenization, lemmatization, and entity extraction, which will help structure user feedback and identify critical information for building software requirements.

Deep learning models, such as GPT (Generative Pre-trained Transformer), LLaMA (Large Language Model Meta AI), and others, play a crucial role in the process. They are used for classification and subsequent formation of specific feedback requirements. With their help, requirements can be formed in a clearly defined format, such as a User Story with Acceptance Criteria.

The proposed approach, focusing on the needs of the end user through User Stories, allows for a clear understanding of the benefits of the proposed functionality. The formalization and specification of requirements through Acceptance Criteria make them ready for development and testing, enhancing the efficiency and effectiveness of the software development process.

**Conclusions.** The integration of advanced NLP algorithms in the stages of collection, processing, and generation of requirements, following the general standards of software development processes, automates the analysis of user feedback. This avoids duplication and subjective vision of requirements and simplifies, speeds up, and improves software support, development, and optimization.

The research presented here contributes to advancing automation tools in business analysis and software development.

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### **TRAINING TEACHERS FOR THE INCLUSIVE AND RESILIENT FUTURE**

After WWII the UN was formed to lead the cooperation in the advancement of global peace, security and human rights. The fear of the nuclear WWIII reduced expected global consolidated actions to half measures, thus the post-war world will need new values and principles of the development. The war has left a significant portion of Ukraine's population facing physical injuries, psychological trauma, destroyed or disrupted facilities and services, displacement and exclusion. Education, enhanced with rigorous research, should already start equipping the present generation with revised meta-skills. There is a pressing need for educators capable of addressing psychological, social, and academic needs of students in these contexts.

The study's purpose is to test the hypothesis that the application of inclusive practices contributes to building resilience. The paper analyses the impact of the military invasion and humanitarian crisis that deteriorate educational services for all categories of students, including those with disabilities, and explores the effective strategies for training pre-service teachers to foster inclusion and resilience in post-war educational systems. It also aims to develop a framework for integration of resilience-building techniques into teacher training programs.

Surveys on the inclusion and resilience awareness as well as focus group discussions with pre-service teachers in Ivano-Frankivsk college were conducted to gain insights into the contexts and expectations. Data gathered through evaluations of educators participating in workshops will be used in the development of the training programs focused on inclusive and resilience building practices. Introduction of narrative speech, art and performance techniques as well as practices of community leadership and inclusion of persons with disabilities, veterans and those affected by the war should be applied while developing models of assessment, monitoring and building resilience. The findings demonstrate that pre-service teachers who received targeted training showed significant improvements in their ability to create inclusive learning environments. They reported increased confidence in handling behavioral and emotional challenges. Additionally, the integration of resilience-building practices, such as peer support, stress and behavior management, may lead to improved classroom performance. The study revealed that educators expressed a need for ongoing professional support and mental health resources to sustain these efforts.

The study concludes that inclusive and resilience-building training of pre-service teachers is essential for the development of post-war society. The individual resilience consequently contributes to the community, national and global ones. While short-term training practices have proven effective, long-term strategies must be developed. Collaboration between educators, national and international organizations is necessary to establish comprehensive, sustainable training frameworks that address the challenges of post-war development. Thus, teacher training can provide invaluable resources for inclusive and resilient society.

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### **GAMIFICATION IN TEACHING MATH**

Imagine a world where solving equations is as exciting as completing a new level in a video game, and learning geometry is as exciting as solving puzzles in an escape room. This world is no longer a fantasy – it is becoming a reality thanks to the gamification of education, which turns «scary» math into an exciting adventure where each student becomes the hero of their own learning odyssey. This article aims to explore various gamified services and their potential to improve the understanding and mastery of mathematical concepts by pupils and students of different age groups.

The analysis of gamified services that can be successfully used in math teaching has led to certain conclusions. One of the most popular gamified tools is Kahoot!, a platform for creating interactive quizzes that allows teachers to develop engaging math tasks in a game format. Prodigy Math Game has proven to be particularly effective for younger students, offering adaptive learning through engaging role-playing games with math content. For older pupils and students, Khan Academy provides a wide range of video tutorials and interactive tasks that organically combine learning with game elements. Mathbreakers stands out for its innovative approach by turning abstract math concepts into visual 3D puzzles, which promotes a better understanding of complex topics. DragonBox Algebra demonstrates how algebraic concepts can be effectively taught through an engaging puzzle game. Mangahigh offers a wide range of math games that cover a variety of topics and difficulty levels, adapting to the individual needs of each student (Titova, 2022).

Thus, gamification has significant potential to transform the traditional approach to teaching math. The use of gamified services not only increases students' interest and motivation, but also promotes a deeper understanding of mathematical concepts through their practical application in game scenarios. It is important to note that the effectiveness of these tools largely depends on their proper integration into the educational process and adaptation to specific educational goals. Gamified services provide an opportunity to personalize learning, taking into account the individual pace and style of learning of each student. In addition, this approach promotes the development of critical thinking, problem-solving and collaboration skills. However, it is important to maintain a balance between game elements and academic content to ensure that educational goals are met.

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### **MATHEMATICAL AND COMPUTER MODELING OF OPTIMIZATION FOR UNEQUAL CIRCLE PACKING**

The objective of this work is to develop and apply mathematical and computational methods for optimizing the packing of unequal circles within a given boundary. This type of problem, known as a circle packing problem, has wide-ranging applications in industrial design, logistics, and material sciences. The challenge is to minimize the unused space while efficiently arranging the circles of varying sizes in predefined areas.

A mathematical model for unequal circle packing was created using non-linear optimization techniques. The model was implemented in a custom algorithm designed to handle constraints on circle size and positioning. The results of the computational experiments demonstrate improved packing efficiency compared to traditional heuristic approaches. Additionally, the proposed method significantly reduced computation time while maintaining accuracy in the packing configuration.

This research provides a robust framework for solving unequal circle packing problems through advanced mathematical modeling and computer algorithms. The proposed solution not only optimizes space usage but also offers potential improvements in real-world applications such as cutting material layouts and packing problems in logistics.

Further development of this model could involve expanding it to three-dimensional packing problems or incorporating dynamic constraints for real-time optimization tasks.

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## **RESEARCH AND COMPARISON OF DIFFERENT METHODS OF SOUND SIGNAL FILTERING FOR BACKGROUND NOISE REMOVAL**

In the modern context of technology development, the issue of cleaning sound signals from background noise is one of the most important in digital signal processing. Sound signals are used in many applied fields, such as telecommunications, audio and video recording, medical diagnostic systems, wireless technologies, security systems, etc. Situations when sound signals are accompanied by unwanted background noise that significantly degrades their quality and distorts important information often arise in these systems. It can lead to errors in the transmission, recognition, or analysis of audio data, requiring the application of effective filtering methods to remove noise.

The **purpose** of the study is to conduct a comparative analysis of audio signal spectral and wavelet filtering methods for removing background noise by generating test signals and adding noise using built-in Python libraries.

**Results.** Among the most common and effective methods to remove noise are spectral and wavelet filtering. Spectral filtering is based on transforming the signal into the frequency domain using tools such as the Fast Fourier Transform (FFT), which allows the decomposition of the signal into its constituent frequencies. In contrast to spectral filtering, wavelet filtering is based on wavelet transformation, which allows to examine signal in both the time and frequency domains simultaneously.

This study includes an in-depth analysis of the theoretical foundations of both methods, a meticulous examination of their practical application in real-world conditions, as well as an experimental comparison based on different types of sound signals and noise. Special attention is given to evaluating the effectiveness of each method according to criteria such as noise reduction level, signal restoration quality, sensitivity to different types of noise, and algorithm performance, ensuring the reliability and trustworthiness of the findings.

Experiments were conducted using real sound signals containing different types of noise. For each type of noise, an analysis of the signal cleaning quality and the degree of distortion after filtering was performed.

**Conclusions.** Spectral filtering is effective when working with signals that have stable noise, such as white noise or stationary background noise. Wavelet filtering is more flexible and allows for the effective removal of impulse noise, which is often encountered in real sound recordings.

Further research should focus on hybrid filtering methods that combine the advantages of spectral and wavelet analysis, as well as the application of machine learning for the automatic adjustment of filters to specific sound signal conditions.

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## **SOFTWARE ANALYSIS OF CYBER-PHYSICAL SYSTEMS IN RAILWAY INFRASTRUCTURE USING PYTHON**

Modern methods of designing and analyzing cyber-physical systems in railway infrastructure have undergone significant changes due to the use of innovative software tools. Python, as a programming language, plays a key role in ensuring the efficient analysis and management of such systems.

The **aim** of this paper is to analyze the use of Python for the design and software analysis of cyber-physical systems in railway infrastructure

**Results.** Train control systems, track monitoring systems, and railway equipment maintenance systems are complex cyber-physical systems. Python offers a wide range of libraries and tools for working with big data, process automation, and machine learning. For example, libraries such as Pandas and NumPy enable efficient processing and analysis of sensor data that monitor the technical condition of trains and tracks. Data visualization tools like Matplotlib and Plotly provide flexible and clear ways of presenting information, aiding in decision-making.

Machine learning models, implemented using TensorFlow and Scikit-learn, help predict potential equipment failures and improve its maintenance. Specifically, the neuro-symbolic approach, which combines logical reasoning with the power of neural networks, facilitates the detection of potential threats to the system and provides transparent solutions for mitigating them.

Internet of Things (IoT) systems, which also utilize Python, allow data from multiple sources to be integrated and centralized for the monitoring and control of railway systems (Petrenko, 2023).

**Conclusions.** The use of Python in the design and analysis of cyber-physical systems in railway infrastructure significantly simplifies management, monitoring, and maintenance processes. This enables enhanced safety and efficiency of railway systems through automation and machine learning.

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### **ANALYSIS OF PUBLIC OPINION USING NATURAL LANGUAGE PROCESSING (NLP) METHODS**

The relevance of public opinion research in modern society is increasing due to the rapid development of information technology and the widespread use of social media. People are increasingly sharing their opinions and reviews about products, services, and brands in the online space, creating vast amounts of data that can be analyzed to gain valuable insights into consumer sentiment.

Public opinion analysis not only allows companies to adapt their strategy but also helps identify problematic areas in service, contributing to the improvement of customer service.

This study aims to use Natural Language Processing (NLP) methods to analyze consumer reviews to assess their sentiment, which is understood as the emotional tone of the text – ranging from positive to negative, as well as neutral.

Various libraries such as VADER, TextBlob, Transformers, spaCy, Stanford NLP, and OpenNLP, which provide functionality for sentiment analysis, will be compared.

The chosen methods are optimal due to their ability to handle large amounts of data, flexibility in customization, and accuracy in detecting the emotional tone of texts. For instance, VADER specializes in short texts and social media reviews, while Transformers enable deep analysis using modern machine learning models capable of recognizing not only positive and negative sentiments but also detailed emotional aspects.

Various datasets will be used, including open datasets from platforms like Kaggle. This will allow evaluating how different methods handle sentiment analysis and compare their efficiency, accuracy, and processing speed.

The research opens new horizons for understanding consumer preferences and can become a valuable tool for marketers and companies seeking to improve their reputation and adapt their products to consumer needs.

Moreover, the results of the analysis can be used to predict future market trends and model consumer behavior. This enables companies not only to respond to existing problems or needs but also to proactively adapt their products and services, which enhances their competitiveness. Thus, public opinion analysis using NLP methods becomes a key tool for developing effective business strategies in a constantly changing market environment.

## ARTISTIC SECTION

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### **ARTISTIC COMPETENCE IN THE CONTEXT OF IMPLEMENTING THE MAIN PROVISIONS OF THE CONCEPT OF THE NEW UKRAINIAN SCHOOL**

**Purpose.** Solving the problem of implementing a competency-based approach in art education, as reflected in the official document of the Cabinet of Ministers of Ukraine of 14 December 2016 No. 988-p, is the main goal of implementing the Concept of the New Ukrainian School in the educational process of educational institutions.

**Result(s).** Involvement of students in various types of artistic activities in conditions specially created for the development of their abilities, formation of the ability to express themselves with a priority on the development of the emotional sphere, focus on the acquisition of life skills during educational and independent artistic activities - creates conditions for the development of a competent personality that can integrate into the European and world educational spaces, be successful, competitive and valuable in the labour market. Since art is a special form of reflection of reality, an aesthetic artistic phenomenon that conveys the beauty of the surrounding and inner world of a person, we can say that it is the key of a modern person to finding himself or herself and understanding others. Mastering art at school is associated with a multifaceted impact on the consciousness and subconscious of a young person who is rapidly developing. The competence-based approach to art education involves a special organisation of the educational process, in which the dominant arts (music and visual arts) interact with synthetic arts (cinema, theatre, animation), etc.

Artistic competence is the ability to cognitively and practically engage in cognitive and practical activities when perceiving, mastering the system of knowledge and ideas in the field of a particular art form (knowledge component), gaining artistic and creative experience in art (activity component), and fostering value orientations towards art and artistic activity (value component). Among the effective methods, we single out the 'Corporate Blog', which is an art magazine website that allows a limited number of users to post their posts and provides readers with the opportunity to comment on them. Such blogs provide an opportunity to post a variety of artistic materials, discuss their own views, present them, conduct creative dialogues with like-minded people and critically analyse events in cultural life.

**Conclusion(s).** The main property of the category 'artistic competence' is a reflection of the spiritual potential of the individual. The formation of artistic competence in the context of the implementation of the ideas of the Concept of the New Ukrainian School is the ability to emotional and value-based world perception and world experience, the willingness to create a creative lifestyle and activity based on the experience of previous worship, preserving national identity and respecting human harmony in the global space.

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## **THE IMPACT OF GLOBALIZATION ON UKRAINIAN HIGHER EDUCATION METHODS IN THE POST-WAR PERIOD**

**Introduction.** The post-war period in Ukraine presents a critical juncture for the transformation of the country’s higher education system. With the impact of globalization accelerating changes worldwide, Ukraine’s higher education sector must adapt to new demands and opportunities. Ukrainian universities, once primarily focused on internal issues, are now more actively engaged with international institutions. These collaborations allow Ukrainian universities to adopt global best practices, implement exchange programs, and offer students access to a diverse range of perspectives.

**Results.** Digitalization, spurred by globalization, has become a dominant force in higher education globally. For Ukraine, the war accelerated the shift to online and hybrid learning models. This trend is expected to continue post-war, with universities expanding their digital infrastructure to ensure education remains accessible despite geographical or logistical challenges. The integration of online platforms, virtual classrooms, and digital resources will become a standard component of Ukrainian higher education, aligning it with global trends.

With globalization comes the need for standardized qualifications and curricula that meet international standards. Ukrainian universities are increasingly aligning their programs with the European Higher Education Area (EHEA) and other global frameworks to ensure that their degrees are recognized abroad. This process of standardization not only enhances the mobility of students and graduates but also elevates the overall quality of education offered in Ukraine.

Another consequence of globalization is the growing importance of language skills, particularly English. Many universities are expanding English-taught programs to attract international students and faculty, while also preparing Ukrainian students for careers in the global marketplace.

Globalization has influenced a shift from theoretical knowledge to practical, skills-based education. As the world economy evolves, there is a growing demand for graduates who possess not only academic knowledge but also the practical skills needed in a competitive, globalized job market. Ukrainian universities are increasingly focusing on skills development, integrating internships, project-based learning, and industry partnerships into their programs.

**Conclusions.** Globalization has had a profound impact on the methods and approaches used in Ukrainian higher education, particularly in the post-war context. The increasing internationalization of education, the adoption of digital learning technologies, and the alignment of curricula with global standards are all critical elements of this transformation. In the future, Ukrainian universities will need to continue adapting to these global trends, ensuring that their graduates are equipped to compete and thrive in the international arena.

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### **DEVELOPMENT TRENDS OF CHOREOGRAPHIC ART IN CHINA IN THE DIGITAL AGE**

**Objective.** Outline the main trends in the development of choreographic art in China in the digital age.

**Results.** Choreographic art in China is an ancient and very diverse art form that includes numerous dance genres. The current period in the country is characterized by the fact that all the necessary conditions have been created for the flourishing of choreographic education and this art form.

**Conclusions.** Based on the analysis of a wide range of scientific works of Chinese scholars, the regulatory framework of the China, it was concluded that the choreographic art has the following development trends in the digital era in the China:

1. Breakthrough and advantages of Chinese artistic achievements in the cultural and economic market.
2. The economic benefits of works of art, in particular, Chinese dance drama, as repertoires are highly valued in the world market, which brings significant financial benefits to the country.
3. The telling of Chinese history through dance works of art has become a fashionable trend in recent years.
4. The emergence of new ways to create dances through digital services, platforms, and applications.
5. The possibilities of the Internet environment, in particular, the Douyin Dance Live Report platform hosted more than 5 million online dance performances within 6 months, which were viewed by about 2 billion people.
6. The popularity of classical, folk, street dance and quadrille.
7. A large number of new and constantly updated virtual reality equipment, motion tracking technologies, etc. open up limitless possibilities for the creation of interactive choreographic artwork. Digital interactive dance requires a high degree of integration between choreography and machine and system design.
8. Technology will provide new experiences of artistic creativity in situ and more opportunities for experimentation in choreographic practice, and the arts will also create new forms of representation and interaction based on expressivity and help create emotionally intelligent interactive systems.

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**KYRYLO STETSENKO’S PEDAGOGICAL PRINCIPLES  
IN THE CONTEXT OF MODERN UKRAINIAN MUSIC EDUCATION**

The name of Kyrylo Stetsenko, a special figure in Ukrainian musical culture, is closely related to the development of Ukrainian musical pedagogy in the 19th and 20th centuries. The pedagogical principles of this adherent of Ukrainian education became a significant musical art achievement. Contributing to folk culture preservation, they were involved in strengthening the Ukrainian nation.

*The purpose of this paper is to investigate K. Stetsenko's musical and pedagogical principles through the prism of modern trends in music education.*

From the beginning of his teaching career in 1903, K. Stetsenko had been studying the state of Ukrainian music education, until he decided to initiate a teacher training course (covering such Ukrainian cities as Bila Tserkva, Tarasha, Lubny, etc.). During the course he shared his experience with the students and prepared them for taking teacher certification exams. The educator came to the conclusion that the development of the primary link of art school education is in demand as the least developed.

An important step in this direction was the compilation of the songbook “Luna” (“Echo”) by the teacher in 1906. The book included Ukrainian folk and art songs, some choral arrangements by O. Koshyts, and several songs from children's operas by M. Lysenko (“Kozha-Dereza”, “Winter and Spring” etc.). K. Stetsenko proved that music in general is one of the most important means of children's aesthetic education, and the folk song, in particular, is a powerful tool of influence due to its prevalence and authenticity. At the same time, K. Stetsenko considered musical pedagogical activity as an important social issue, the task of which is not only to educate worthy people, but also to instill patriotic values in them.

So, it is possible to draw the following parallel between K. Stetsenko's views and modern trends in the development of music education: the task of music education is to form an independent and creative personality with an active public position through the process of oral folk art.

E. Fedotov, a researcher of K. Stetsenko's pedagogical heritage, indicated the progressiveness of the educator's approach through the rejection of difficult scholastic tools and the use of diversity and complexity in the development of his own methodology. So, there is one more parallel: the use of poly-artistic and cultural components and an individual approach in the meaningful structure of music education.

K. Stetsenko also developed a project for the reorganization of Ukrainian musical education. Although that project was not accepted due to the changeable political situation, the ideas proposed by K. Stetsenko successfully function today.

Thus, Kyrylo Stetsenko initiated the formation of music education principles, which found their embodiment in domestic music education.



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### **USING “SO” AND “BECAUSE” IN GRAPHIC DESIGN**

In modern graphic design, not only the visual component is important, but also the ability to logically convey information. Conjunctions “so” and “because” help create clear messages and justify design decisions.

The **goal** is to analyze the meaning of these connectors to improve communication and argumentation in the professional activity of designers. This will affect interaction with clients and the logic of building European projects in post-war conditions, where clarity and rationality are valued.

The conjunction “so” indicates the result and in graphic design explains the reason for the adopted design decision. For example, “The text was too small, so I increased the font size”. In design, especially when communicating with clients or the team, it is important to emphasize the logic of actions.

The conjunction “because” indicates a reason or explanation and serves to justify decisions. For example, «I chose a blue color scheme because it evokes a sense of calm and trust». In this example, “because” explains the choice of a specific color scheme. The importance of the conjunction “because” in graphic design lies in its ability to justify decisions, which is especially useful when convincing clients of the correctness of aesthetic strategies.

**Result.** As practice has shown, “For successful development in the field of graphic design, it is necessary to possess not only professional skills, but also knowledge of the English language” (Kopotilov, 2024, p. 11). It is advisable to use podcasts for self-education. Scientists S. Shekhavtsova and K. Bilobrovska note: “Podcast is really the most modern interactive communication technology for learning English” (Shekhavtsova, S. O., & Protopopova, 2019, p. 176).

In graphic design, it’s important to understand how these connectors can help you communicate your ideas clearly. By using them correctly, you will be able to communicate your thoughts more effectively, making your design decisions more understandable and logically justified.

**Conclusions**, graphic design is not only about visual aesthetics, but also about effective communication. The correct use of the conjunctions “so” and “because” in the English language allows designers to clearly explain their decisions, maintaining logic and clarity in communication. This helps not only in interacting with clients and the team, but also in creating clear and effective visual projects.

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### **AI APPLICATIONS FOR FUTURE INTERIOR DESIGNERS IN CHINA**

**Objective.** The article discusses the functions and possibilities of using modern AI applications for future interior designers in China.

**Results.** In the era of artificial intelligence, which has replaced the digitalization era, it is important to improve the AI literacy of future specialists, including interior designers. It is China, one of the most powerful and advanced countries in the world in technological breakthroughs, that has accumulated valuable experience in using modern AI applications that greatly facilitate the work of future interior designers.

**Conclusions.** So, here are the functions and possibilities of using some common modern AI applications for future interior designers in China:

- **Reimagine your home** – is an intuitive platform that allows you to develop virtual staging, reconstruction, landscape and interior design. Enables rapid architectural transformation, helps to research and select new materials, colors, and visualize changes in real time.
- **Beautiful Home** – is a powerful and convenient platform that allows you to create 2D and 3D interior design projects. It also provides the function of viewing your own project from different angles, namely to see a realistic perspective of the space.
- **New foyer** – is a comprehensive tool that creates 3D plans and various interior designs online. Like the previous AI application, it contains a powerful library of ready-to-use models. It helps to turn the vision of a future interior designer into reality.
- **Decoration** – the AI platform has a user-friendly interface and has a wide audience of users, namely interior designers. The most useful feature of the application is augmented reality, which provides realistic visualization of.
- **Midway** – an image generator used to create creative and unique design concepts. It is convenient for novice interior designers, as it provides its users with resources for learning, development, exploring new design possibilities, expanding their own boundaries of creative vision, etc.

Given the above, we can conclude that artificial intelligence does provide some automated tasks and functions, but it will never replace human creativity, imagination, and creativity.

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### **THE IMPORTANCE OF THE SOUND ENGINEERING PROFESSION IN MODERN CULTURAL SPACE**

The **purpose** of this study is to identify the key features of the sound engineering profession and to consider the role of sound engineering in modern cultural space.

**Results.** Although the sound engineering profession is not visible to most viewers and listeners, it is one of the most important jobs in modern media space. It is the sound engineer who creates the soundscape that complements the visual image, enhances the viewer's emotions and forms the overall impression of the content.

The sound atmosphere creation procedure is based on the selection and processing of sound effects, music and dialogues which create a certain ambience, emphasize both comic and dramatic aspects, and evoke other emotions. Sound balancing is an important task for a sound engineer to achieve the optimal coordination between different sound components in such a way that the sound is perceived clearly and without distortion. Another task is sound recording and editing – either in concert conditions or in the studio. Sound engineers closely cooperate with the director, cinematographer and other professionals to achieve a unified creative vision in the film industry. A well-mixed sound significantly improves the quality of any audiovisual product and makes it more attractive to the audience. The established emotional connection can evoke a range of feelings from joy and happiness to fear and anxiety in viewers and listeners. Sound designers skillfully use this approach to develop an attachment bond between the work of art and its audience. The unique sound image of an advertisement can become a business card of any brand and distinguish it from competitors.

Requirements for sound engineers are based on four key aspects. A good ear for music is fundamental to become a successful sound engineer. In-depth technical knowledge in the field of sound recording, editing and sound processing is necessary for the performance of professional duties. The ability to think creatively allows sound engineers to find original sound solutions. Sound engineers must be able to work in a team and communicate effectively with each team member during the work process.

**Conclusions.** Sound engineering is becoming more and more popular as a result of technological development and the growing demand for quality audiovisual content.

There are new opportunities for creativity, including the creation of sound installations and the development of sound design for video games and virtual reality. In our opinion, this profession is beginning to experience changes due to the availability of software and access to scientific materials in this field.

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**SOUND ANALYSIS OF THE SONG “NO SURPRISES”  
BY THE ROCK BAND “RADIOHEAD”**

*The purpose of the article.* The aim of this article is to perform a sound analysis of the song "No Surprises" by the rock band Radiohead (1997). In the course of the song analysis, we combine a study of its soundscape with its emotional aspects, using time codes to examine the piece throughout its entire duration.

*Results.* The song begins with the sound of the guitar and bass guitar, which form its musical foundation (0:00 - 0:12). The addition of percussion instruments creates a soft rhythm. The guitar remains in the foreground, while a glockenspiel plays in the background adding a dreamy feeling to the song (0:12 - 0:25). The vocalist's voice takes the forefront creating a melancholic mood (0:25 - 0:50). A drum break follows accompanied by the constant ringing of the ride cymbal. Thom Yorke's voice remains at the forefront, revealing itself through the stretching of notes, conveying feelings of anxiety and sadness over the dullness and monotony of life (0:50 - 1:07).

The xylophone enhances its part playing notes that cascade downwards like a waterfall emphasizing the song's theme (1:07 - 1:14). In this section, the bass guitar and drums gain strength adding dynamics and energy to the song. Yorke's voice becomes more expressive, conveying frustration and discontent (1:14 - 1:29). After the intensification of the drum and bass parts, the drums highlight the momentum ending with breaks, while the bass maintains the overall tone with just three notes creating space for the xylophone's descending waterfall-like cascade of notes from high to low (1:29 - 1:47). This moment can be described as quiet exhaustion, where all hopes are left behind, with only dreams remaining. This sentiment is by reflected the instruments: only the vocals, xylophone, and electric guitar playing the main part are audible.

A synthesizer with a string-like timbre is introduced; by playing a solo, it gives the moment a fairy-tale spirit (1:47 - 2:13). In this part the drums intensify, and the guitar adds expressiveness. Yorke's voice conveys a full range of emotions – from indignation to fatigue expressing a sense of loss and despair (2:13 - 2:31). Only the instruments are heard now, as if Yorke has given them the opportunity to express emotions in a way that only they can. At this point, it is impossible to clearly distinguish who is in the lead or playing solo, but the sound remains powerful and meaningful, as if the instruments are deeply reflecting on the song's theme (2:31 - 2:55).

After this section, all the instruments come to the forefront creating the final surge of emotional intensity. Thom Yorke's voice expresses deep sorrow, and as if shouting with his last strength, he tries to save himself from the challenges and emptiness of life (2:55 - 3:26). After this emotional outburst, both the vocals and instruments gradually fade out ending the song almost the same way it began – with soft, gentle sounds of guitar and synthesizer slowly dissolving into the air leaving the listener with a sense of tender calm and nostalgia (3:26 - 3:48).

*Conclusions.* "No Surprises" is a masterfully crafted song that conveys a wide emotional spectrum ranging from routine and boredom to a desire for comfort and peace in a simple life. The analysis highlights the importance of continuing to explore music from the perspective of sound composition and emotional expressiveness, as it allows us to gain a deeper understanding and appreciation of the artistic value of musical works. Such an approach contributes to the development of musical literacy and critical thinking revealing the inner structure of the music and the emotional charge it carries.

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### **MUSICAL WORK AS AN OBJECT OF COPYRIGHT**

**Aim.** The aim of this paper is to analyse musical works as objects of copyright, highlighting their significance for promoting creativity and protecting intellectual property, particularly in the challenging context of ongoing war. Throughout this text, I will explore different aspects of protecting the rights of musicians and try to answer the question: why is it necessary for musicians and students to know and follow the copyright laws ?

**Results.** Copyright is "a set of rights that the author (and his successors) have regarding the creation or use of a work of literature, science, art, etc". In simpler words, copyright gives authors exclusive rights to use and distribute their art. In the space of the music industry, this means that authors have the right to perform, record, broadcast and reproduce their works in various forms. The protection of copyright allows musicians and composers to earn a living from their creativity. According to the Ukrainian legislation on intellectual property (Law of Ukraine "On Copyright and Related Rights" (2007); Law of Ukraine "On Higher Education" Article 69 "Intellectual Property Rights and Their Protection"), they state multiple examples of objects of protection that are within the fields of science, literature and art. Objects of protection that are related to music which are stated by the legislation are:

- musical works with and without text;
- drama, musical and dramatic works, pantomimes, choreography and other works created for stage performance;
- audiovisual works;

However, many musicians come across unauthorised uses of their works, this results in no income which, in turn, creates financial problems for their lifestyles. In addition it demotivates artists from continuing creating their pieces of work or even staying within the music industry in general.

To deal with those issues, it is crucial for musicians – especially students – to follow the copyright laws. To educate students and other musicians about the copyright laws, initiatives could be implemented so that the benefits of creating music will be profited by the authors as well as protected, thus they are able to continue making their pieces.

**Conclusion.** In conclusion, I would say that in terms of education, it is necessary for students, teachers and musicians to understand and follow copyright laws, especially for after-war education. Individuals should not only follow laws out of fear of punishment, but they also need to develop understanding and respect in the new generation of music students so they could follow those rules due to a sense of respect for other people, their rights, and their work.

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**MENTAL HEALTH PRESERVATION THROUGH THE FOLK SONG  
(BASED ON YAVDOKHA ZUIKHA'S OEUVRE)**

The **aim** of the article is to reveal the role of folk songs in preserving mental health. Yavdokha Zuikha's song repertoire is used as an example.

**Results.** The ability to master the practices of mental health preservation is an important skill for modern educators. Folk songs, as the most widespread form of folk music, have a significant pedagogical impact. The use of folk songs is essential both for preserving national memory and building resilience to life challenges, particularly in wartime. Thus, the songs passed down through oral tradition hold substantial educational potential.

The role of folk songs in preserving mental health is explored within Ukrainian ethno-pedagogical heritage. Folk songs lift the mood, relieve emotional tension and stress, provide a sense of calm and security, and foster patriotic feelings. A vivid example of the life-affirming power of folk songs is Yavdokha Zuikha's musical art. The songs she recorded and performed became not only valuable sources of cultural heritage but also an example of resilience.

Yavdokha Zuikha (Yevdokiya Syvak) was born either in 1851 or 1855 in the village of Kushchyntsi, Vinnytsia region, into a poor serf family. Her life coincided with the time of Ukrainian colonialization by the Russian Empire when 85% of Ukrainian lands were occupied, and the culture was subjected to suppression. The Ems Ukaz of 1876 banned the Ukrainian language and aimed to destroy the cultural identity of the people. Since Yavdokha Zuikha had an exceptional memory, she preserved a vast number of folk works. Her diligence, cheerful character, and beautiful voice ensured her popularity and demand. She also spoke Polish and knew many Polish songs and proverbs. Hnat Tantsiura became the compiler of her works.

The example of Yavdokha Zuikha's oeuvre vividly demonstrates that in difficult times folk songs serve as a powerful means of expressing emotions and shared experiences. Songs that reflect tragedies and losses, joys and hopes help overcome emotional tension, process difficult situations, and find the strength to continue living. Offering emotional solace to listeners, Zuikha's performances were characterized by their emotional depth and the ability to convey the subtlest human feelings. Her songs, which contained both humorous and tragic elements, served as a form of therapy, helping her and those around her cope with life's hardships. The tradition of transmitting songs orally also strengthens intergenerational connections.

**Conclusions.** Thus, folk songs, as illustrated by Yavdokha Zuikha's example, can be a powerful pedagogical tool for preserving mental health. They allow for emotional expression, help relieve stress, and provide spiritual support even in the hardest moments of life, serving as an important element of modern culture.

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### **JUSTIFICATION FOR THE NECESSITY OF STRENGTH TRAINING FOR WOMEN IN THE FIRST MATURITY GROUP**

**Objective.** To justify the necessity of strength training for women aged 36-55 to support health, maintain muscle mass, and improve quality of life.

**Result.** The main outcome of the study is the conscious understanding of the importance of strength training as a necessary element for maintaining good well-being and health. An analysis of an effective training plan for women allows strength training to be effectively adapted to their individual physiological characteristics. As a result, training becomes safer and more effective, reducing the risk of injuries and overexertion. Women gain a clear understanding of which exercises best suit their body type and metabolism, how to correctly adjust the intensity and frequency of workouts, and how to ensure optimal recovery after exertion.

Regular training helps build a strong muscular core, improves posture, and protects the joints. Another important outcome is the increase in self-esteem and motivation, as body strengthening positively affects self-confidence. Strength training contributes to the reduction of fat mass and the acceleration of metabolism, which helps maintain a healthy weight and decreases the risk of chronic diseases.

Strength training is an important component of physical activity for women aged 21-35, as it has a significant impact on maintaining health and quality of life. With age, natural processes of muscle mass decline, loss of tissue elasticity, and slowed metabolism begin. This can lead to decreased physical activity, increased fat mass, and a higher risk of chronic diseases such as osteoporosis, diabetes, and cardiovascular diseases.

Strength training helps preserve muscle mass and increase bone density, which is extremely important. Weight-bearing exercises also improve metabolism, contributing to weight loss, which helps reduce the risk of developing cardiovascular diseases. In addition to physical benefits, regular sports activities positively affect the psycho-emotional state, increasing energy levels, self-esteem, and overall mood.

It should also be noted that strength training contributes to the formation of a strong muscular core, which supports proper posture, protects the joints from injuries, and helps prevent back pain that often occurs in middle age.

**Conclusion.** The characteristics of strength training for women require an individual approach, taking into account physiological and hormonal differences. A proper training plan, adapted to a woman's specific needs, promotes effective muscle strengthening, improved metabolism, and health maintenance. Thanks to this, women can achieve high results in improving physical fitness, maintain energy levels, and ensure long-term health and well-being. Regular training is an important component of a healthy lifestyle, providing women with a better quality of life.



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### **PSYCHOLOGICAL MECHANISMS OF FORMING MUSIC TEACHERS' PERFORMANCE SKILLS**

Expansion of the teacher's functions in modern society, complexification of tasks and content of upbringing young people cause an increase in the requirements for the level of their performance skills.

In addition to the professional aspect, there is another, no less important, aspect in musical performance – the psychological aspect, which is directly related to student-performers' psychological training.

Virtuoso performance depends on the coordinated work of the right and left hemispheres of the brain. The left hemisphere monitors the rhythmicity of movements, it has a localized sense of rhythm that detects deviations from the required tempo and violation of the required equality in the sequence of performed sounds. The right hemisphere observes where the virtuoso's hands fall, where on the keyboard or fretboard each finger lands. The physical-motor side of the game, laid out in rhythm, pattern and tempo, must be coordinated with its visual-spatial components. If motor-spatial connections are made without obstacles, then the prerequisites for a virtuoso game already exist. The main thing is that this whole process is guided by the musician's hearing: no matter how perfect his/her motor skills are, no matter how flexible and agile his/her hands seem, no matter how good his/her eye is and how accurate the spatial feeling of the instrument is, they will not help the performer in any way, if hearing and musical imagination do not guide his/her playing.

The performer needs auditory-spatial associations 'to get where he/she needs to go'. But for the movements to be optimal, comfortable and fast, auditory-motor coordination is needed. Fingers must respond extremely quickly and correctly to the command coming from the auditory parts of the brain. The speed of such a response depends on the vivacity of intonation hearing and the sense of rhythm.

The leading role of hearing in the formation of auditory-motor connections leads to the fact that these connections are easily formed – music itself contains optimal movements that express it, they are encrypted in its intonation image, in its rhythmic pattern. If the motor feeling of the music and its plastic image in the performer's mind are quite bright and embossed, then the hands obey the commands without question. However, the performer often has to change the motor strategy to a better, more convenient one, which he/she finds as a result of training, and this process should proceed easily and quickly: when another command comes from the auditory center, the hands execute it as obediently and accurately as they executed the first one.

Thus, it is psychological training that ensures the student's ability to objectively control his/her own actions in the course of performance activity and flexibly correct them as necessary.

## **PROSPECTS FOR THE DEVELOPMENT OF UKRAINIAN HIGHER EDUCATION IN THE POST-WAR PERIOD**

The war in Ukraine has had devastating effects on all aspects of life, including education. Thousands of educational institutions have been damaged or destroyed, and millions of students and teachers have been displaced. The higher education sector, a cornerstone of any nation's intellectual and economic future, has faced profound disruptions. As Ukraine looks toward post-war recovery, the modernization of its higher education system presents both a challenge and an opportunity. This article aims to analyze the potential development trajectories for Ukrainian higher education, considering both the damage caused by the war and the reformative momentum that could emerge from the crisis.

**Results.** The war has exacerbated existing issues within Ukraine's higher education system, including outdated infrastructure, limited resources, and brain drain. Many university buildings have been damaged, and a significant portion of the academic staff and students have relocated either within Ukraine or abroad. Distance learning has been implemented as a temporary solution but faces its own set of challenges such as inadequate technological infrastructure and access inequality among students.

The post-war period offers a unique opportunity for comprehensive reform in Ukrainian higher education. Digital Transformation: The pandemic accelerated the use of digital tools in education, and the post-war period presents an opportunity to further integrate these technologies. European Integration: Strengthening ties with European educational institutions and aligning Ukrainian higher education with the Bologna Process can enhance academic mobility and international collaboration. Curriculum Modernization: The war has highlighted the need for curriculum updates to focus on critical thinking, resilience, and interdisciplinary studies, preparing students to face complex global challenges. Private Sector Collaboration: Post-war rebuilding offers opportunities to partner with the private sector in developing research and innovation hubs that can fuel economic recovery and academic excellence.

International organizations, foreign governments, and global universities have already expressed their willingness to assist Ukraine in rebuilding its educational system. International support could come from funding, expertise, and exchange programs, fostering a more globally connected Ukrainian academic community. Higher education institutions will provide the skilled workforce necessary for reconstruction and play a pivotal role in fostering civic engagement and national identity. Universities can be instrumental in rebuilding Ukraine's knowledge economy, driving innovation, and supporting the democratization process.

**Conclusions.** Ukrainian higher education's post-war recovery presents significant challenges and promising opportunities. While the damage to infrastructure and displacement of students and faculty pose immediate problems, the crisis also creates space for necessary reforms. Digital transformation, European integration, curriculum modernization, and enhanced collaboration with the private sector are critical components of the future educational landscape. International support and partnerships will be vital in ensuring the success of these reforms. Ultimately, the rebuilding of Ukraine's higher education system will not only benefit the academic community but also play a crucial role in the broader recovery and modernization of the country.

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### **COMPONENTS OF INFORMATION AND COMMUNICATION COMPETENCE OF FUTURE MUSIC TEACHERS**

**Objective.** To reveal the structural components of information and communication competence of future music teachers.

**Results.** The information and communication competence of future music and pedagogical workers is understood as a purposeful specially organized educational process aimed at developing the abilities of the individual, which consists in the readiness of conscious effective use of information and communication technologies in educational and professional activities to solve complex problems; possession of software for music and pedagogical education; ability to improve information literacy, develop professional qualities, enrich their own knowledge

**Conclusions.** It has been concluded that the information and communication competence of future music teachers combines the following structural components:

- motivational and purposeful (development of external and internal motives for future professional activity);
- informational and cognitive (mastering by future specialists the necessary theoretical knowledge about the conceptual apparatus, search strategies for quickly obtaining the necessary information, in particular on the official websites of reputable institutions, quickly and accurately communicating information to applicants; mastering the basics of establishing effective communication with applicants using information and communication technologies);
- behavioral and activity (mastery of intellectual, technical, technological skills and abilities of effective use of information and communication technologies in professional activities);
- personal – value (formation of the necessary personal qualities of future specialists to carry out this activity: perseverance, independence, responsibility, creativity, sociability, flexibility, mobility);
- reflexive and evaluative (ability to analyze and self-analyze own activities, achievements, results; readiness for creative change of professional activity style; orientation to continuous professional self-improvement).

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**DIFFERENTIATION OF VOCAL TRAINING FOR STUDENTS OF HIGHER  
PEDAGOGICAL EDUCATION IN THE PEOPLE’S REPUBLIC OF CHINA:  
COMPARATIVE AND PEDAGOGICAL ASPECT**

The choice of the research topic is determined by the relevance of implementing the humanistic paradigm in the process of teaching vocals in pedagogical universities of the People's Republic of China, the strategic course of improving the system of higher pedagogical education in Ukraine with a focus on the best world traditions, the possibilities of differentiating the educational process taking into account personal learning goals, preferences, general musical and specific vocal abilities, psychological characteristics of students, etc. for self-actualization of their personality, revealing potential opportunities, testing professional self-determination, forming professional individuality and implementing quality professional training.

The aim of the research is to systematize theoretical ideas and generalize the experience of differentiation of vocal training in pedagogical universities of the People's Republic of China for the implementation of this experience in higher pedagogical education institutions of Ukraine. According to the research topic, its tasks are: clarification of the terminological and conceptual apparatus of the studied problem, analysis of scientific approaches and definition of the essence of such key research concepts as personalization of learning, individualization of learning, differentiation of learning, individual and differentiated approaches to learning, individualized and differentiated learning, etc. in Chinese and Ukrainian scientific and pedagogical literature; characterization of theoretical approaches of Chinese and Ukrainian scientists to determining the essence of the learning differentiation process; revealing the peculiarities of learning differentiation in world theory and practice; generalization of the experience of differentiation of vocal training in pedagogical universities of the People’s Republic of China; outlining promising directions for creative use of progressive ideas of Chinese scientists and the experience of Chinese educators regarding the differentiation of vocal training in music and pedagogical education in Ukraine.

The object of the research is defined as the process of teaching vocals in pedagogical universities of the People's Republic of China. The subject of the research is theoretical ideas and experience of implementing differentiation of vocal training in pedagogical universities of the People's Republic of China.

The directions for revealing the experience of implementing differentiation of vocal training in pedagogical universities of the People's Republic of China are chosen as differentiation of educational content, forms and methods of forming individual singing style of music and pedagogical education seekers, implementation of differentiation of vocal training in the conditions of computerization of education.

## POSTER SECTION

**BOZHKO, Yuliia**

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### THE ESSENTIAL ROLE OF MOTIVATION IN LEARNING A FOREIGN LANGUAGE

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## THE ESSENTIAL ROLE OF MOTIVATION IN LEARNING A FOREIGN LANGUAGE

Learning a foreign language is a complex process that requires time, effort, and persistence. However, one of the most crucial factors in determining the success of this endeavor is motivation. **This article aims** to explore the role of motivation in language learning, examining how it influences the learning process, the results it yields, and its long-term impact on language acquisition.



### Results

Motivation significantly affects the pace and effectiveness of language learning. Highly motivated learners are more likely to engage in consistent practice, seek out opportunities to use the language in real-life contexts, and overcome the inevitable challenges that arise during the learning process [1]. Motivated learners are better at retaining vocabulary, understanding grammatical structures, and developing fluency. This is because motivation drives learners to immerse themselves in the language, whether through media consumption, conversation with native speakers, or formal study [2].

Moreover, motivation influences the choice of learning strategies. Motivated learners tend to use more diverse and effective strategies, such as active listening, repetitive practice, and context-based learning [3]. These strategies enhance comprehension and retention, leading to faster and more sustainable language acquisition [4, 2]. Additionally, intrinsic motivation—stemming from personal interest, cultural appreciation, or the desire for personal growth—often results in deeper engagement and long-term commitment to mastering the language [5, 1].



**In conclusion**, motivation is a key determinant of success in learning a foreign language. It not only drives learners to initiate the learning process but also sustains their efforts over time. The level of motivation can significantly influence both the quality and speed of language acquisition. Therefore, fostering motivation through goal setting, positive reinforcement, and creating a conducive learning environment is essential for anyone embarking on the journey of learning a new language [6].

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## **ARTIFICIAL INTELLIGENCE: A NEW STAGE IN THE DEVELOPMENT OF EDUCATION**

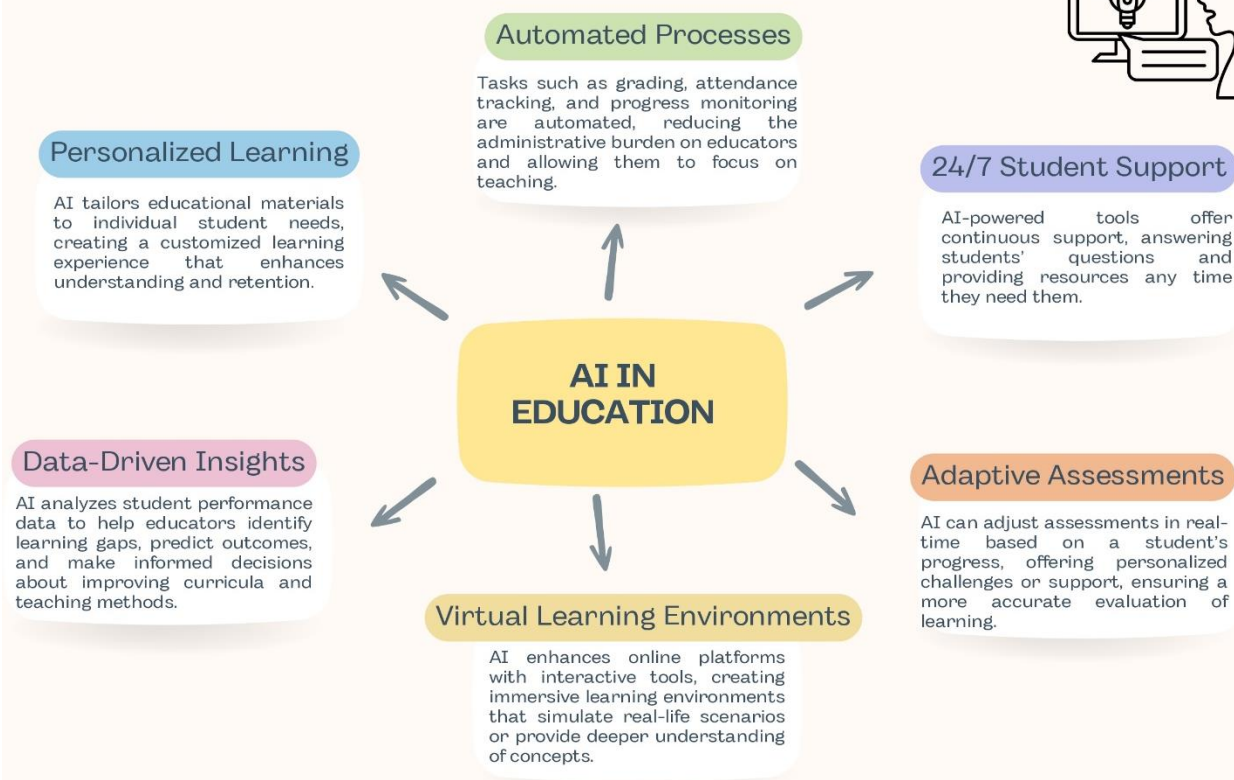
Chernushenko Alisa

V. N. Karazin Kharkiv National University

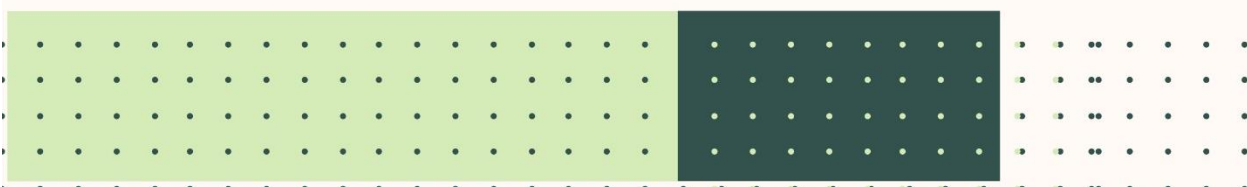
Ukraine

## **ARTIFICIAL INTELLIGENCE: A NEW STAGE IN THE DEVELOPMENT OF EDUCATION**

**Goal:** To explore the impact of artificial intelligence on modern educational processes. To identify key areas of AI usage in education to improve learning outcomes and optimize the teaching process.



**Conclusions:** AI is revolutionizing education, making it more efficient and student-centered. However, careful attention must be given to the ethical aspects and the digital divide.



**CHORNA, Olha**

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## **PSYCHOLOGICAL CONTENT OF WOMEN'S LIFE STRATEGIES IN THE CONTEXT OF THE RUSSIAN-UKRAINIAN WAR**

Chorna Olha

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Postgraduate student, Master of Psychology

### **PSYCHOLOGICAL CONTENT OF WOMEN'S LIFE STRATEGIES IN THE CONTEXT OF THE RUSSIAN- UKRAINIAN WAR**

The **abstract** reviews the problems of the psychological content of women's life strategies during the war in Ukraine, gender differences in life strategies during the war, as well as the impact of the war on changing the content of women's life strategies (separation, family breakdown, choice, forced migration, loss).



#### **Purpose**

The priority purpose of this study is to identify the life strategies of Ukrainian women and their transformation under the influence of wartime conditions in Ukraine.

#### **Results**

According to the results, more than 80% of respondents indicated that they are involved in some way in countering the enemy: providing resources to Ukrainian defenders and citizens, volunteering, and participating in the information war. The only point where the involvement of men and women has a statistical difference is fighting the enemy with weapons in hand (11% of men and 1% of women are involved in armed resistance).

Almost all respondents said that they support their relatives and colleagues during the war. Men are more involved in helping with relocation (20% of men and 12% of women have provided such assistance to their relatives). Instead, women are more often responsible for communication: 86% of women and 77% of men support their loved ones in this way support their loved ones. 81% of women and 73% of men try to share optimism with others and keep their spirits up. The study showed a lower percentage of women's involvement in work and in wartime.

Among those surveyed, 69% of men and 56% of women have a job ( in October 2021, 81% of men and 64% of women were employed.)77% of women and 62% of men report that their involvement in work has decreased (both in terms of dismissal and reduction of working hours while keeping their job), while for 13% of men and 3% of women, the intensity of work has increased.

#### **Conclusion**

The war had a greater impact on women's lives than on men's. A significant number of women were forced to quit their jobs, give up additional income and change their place of residence in order to take care of the safety and morale of their loved ones and children. This has had a significant impact on their well-being and increased their insecurity.

**DOBROVOLSKA, Olena**

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## **INNOVATIVE APPROACHES TO TEACHING MATHEMATICS IN THE POSTWAR WORLD**



### **INNOVATIVE APPROACHES TO TEACHING MATHEMATICS IN THE POST- WAR WORLD**

**PRESENTED BY: Olena Dobrovolska**

#### **OBJECTIVE:**

- Rethink traditional methods of teaching mathematics in a post-conflict world.
- Introduce innovative approaches that meet the needs of modern students.



#### **RESULTS:**

##### **INNOVATIVE APPROACH**

**INTEGRATION OF  
TECHNOLOGIES**

**SOCIO-EMOTIONAL  
LEARNING**

**INCLUSIVE  
ENVIRONMENT**

##### **DESCRIPTION**

USE OF DIGITAL PLATFORMS  
AND INTERACTIVE  
APPLICATIONS FOR LEARNING

SUPPORT FOR THE DEVELOPMENT  
OF COOPERATION SKILLS AND  
EMOTIONAL RESILIENCE

ATTENTION TO THE NEEDS OF  
EACH STUDENT, TAKING INTO  
ACCOUNT PSYCHOLOGICAL  
TRAUMA

##### **BENEFITS**

ACCESS TO QUALITY  
MATERIALS; ENGAGEMENT OF  
STUDENTS

IMPROVED COMMUNICATION;  
ADAPTATION TO STRESSFUL  
SITUATIONS

ENSURING EQUAL ACCESS  
TO EDUCATION



#### **CONCLUSIONS:**

- Innovative approaches to teaching mathematics open up new opportunities for education in the post-war world.
- It is important to introduce technology, project-based learning and create an inclusive environment to improve the learning process.

**MASTER'S DEGREE. H.S. SKOVORODA KHARKIV  
NATIONAL PEDAGOGICAL UNIVERSITY**





**DOBROVOLSKA, Olena**

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

**MOTIVATION OF STUDENT AFTER THE WAR: STRATEGIES  
FOR ENGLISH LANGUAGE TEACHERS**

**MOTIVATION OF STUDENTS AFTER THE WAR:  
STRATEGIES FOR ENGLISH LANGUAGE TEACHERS**

PRESENTED BY: OLENA DOBROVOLSKA

English language teachers play an important role in getting students back into active learning after a difficult time.



✓ Emotional support and creating a safe atmosphere

✓ Project activities and interactive formats

✓ Meaningful learning with an emphasis on practicality

✓ Use of modern technologies

**MASTER'S DEGREE. H.S. SKOVORODA KHARKIV NATIONAL  
PEDAGOGICAL UNIVERSITY**

**STRATEGIES FOR RECOVERY: REBUILDING EDUCATION AFTER WAR**



**Challenges**

**LACK OF RESOURCES**  
War economies deplete resources for education, making it difficult to provide quality learning environments and support services.

**DISPLACEMENT**  
Displacement of students and educators disrupts learning and teaching continuity, leading to a loss of skilled teachers and educational opportunities.

**INFRASTRUCTURE DAMAGE**  
Schools and educational facilities may be destroyed or severely damaged during conflict, disrupting access to education.

**TRAUMA AND MENTAL HEALTH**  
War-related trauma and psychological distress affect students and educators, hindering learning and teaching effectiveness.

**! RECOVERY STRATEGIES**

**RECONSTRUCTION** Investing in rebuilding damaged infrastructure to restore access to education and create a supportive learning environment.

**TRAINING AND SUPPORT**

- Provide training and support programs for educators to address trauma, improve teaching skills, and raise awareness of mental health.
- Introduce psychosocial support programs in schools to help students cope with trauma, develop resilience, and improve their well-being.

**RESOURCE MOBILIZATION** Mobilizing domestic and international resources, including financial and technical aid, to overcome resource constraints and strengthen the education system.

**FEDOTENKO, Liudmyla, & KARPENKO, Viktoriia**

*Detached Structural Unit "Professional Pedagogical Specialty College of Oleksandr Dovzhenko Hlukhiv National Pedagogical University", Ukraine*

## **YOUTH EDUCATION IN UKRAINE'S BORDER REGIONS**

# **YOUTH EDUCATION IN UKRAINE'S BORDER REGIONS**

Presented by: Liudmyla Fedotenko, the teacher of English and Viktoriia Karpenko, the student of the Detached Structural Unit "Professional Pedagogical Specialty College of Oleksandr Dovzhenko Hlukhiv National Pedagogical University", Ukraine

The town of Hlukhiv in the Sumy region has long been recognized as an educational hub on the border of Ukraine, housing several institutions of professional pre-higher education, including the prominent Hlukhiv National Pedagogical University named after Oleksandr Dovzhenko. However, since the onset of Russian aggression on February 22, 2022, many young people have relocated to safer regions or abroad.



Our beloved institution, the Detached Structural Unit "Professional Pedagogical Specialty College of Oleksandr Dovzhenko Hlukhiv National Pedagogical University," has had to transition solely to distance education. Students miss the interaction with their peers and our educators!



While we are implementing youth educational projects and participating in various subject events and clubs remotely, we yearn for the simple ability to sit at our desks and learn like students around the world.

Constant air raid sirens and frequent power outages have robbed us of the carefree student life we once knew.

My greatest hope is for the war to come to an end as swiftly as possible, allowing people to return to their homes and live peacefully in their homeland.

Children deserve to be with their parents, feel secure, and receive an education at the institutions of their choice.

Access to educational institutions should be sufficient and available to everyone. This means ensuring there are enough buildings for these institutions, qualified teachers, educational materials, libraries, and more.

The government must eliminate any barriers to education. Accessibility should be ensured both physically (the ability to safely reach institutions) and economically (affordability for all), without any form of discrimination.

Education must be flexible and adaptable to meet the changing needs of society, as norms, beliefs, and traditions evolve.

It is essential that education is recognized not only as a fundamental human right but also as a crucial tool for realizing other human rights.

Furthermore, education should be acknowledged as one of the most valuable financial investments that governments can make.

I really hope that the war in Ukraine will end in the near future because it is the biggest dream of every Ukrainian today.

There is a saying: "We hope for the best, but prepare for the worst", but we still hope that we will return to our educational institutions very soon and will fully receive the knowledge we need for our future profession.



**GARNYK, Liudmyla<sup>1</sup>, KATERYNYCH, Oleg<sup>1</sup>, & SNIHUROVA, Iryna<sup>2</sup>**

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<sup>2</sup>Ukrainian language Department of NTU KhPI, Ukraine

## **NON-FORMAL ADULT EDUCATION: INNOVATIVE SOLUTIONS FOR POST-WAR SOCIETIES**



### **NON-FORMAL ADULT EDUCATION : INNOVATIVE SOLUTIONS FOR POST-WAR SOCIETIES**

**Presenters:**

**Liudmyla GARNYK**, PhD, Senior Research Fellow at the Department of Innovative Poultry Production of State Research Poultry Station of the National Academy of Agrarian Sciences of Ukraine.

**Oleg KATERYNYCH**, PhD, D.Sc., Director of State Research Poultry Station of the National Academy of Agrarian Sciences of Ukraine, Professor of Biology Faculty of V.N. Karazin Kharkiv National University.

**Iryna SNIHUROVA**, PhD Student, Specialty 011 - Educational, Pedagogical Sciences at Kharkiv National University of Internal Affairs, Senior lecturer at Ukrainian language Department of National Technical University “Kharkiv Polytechnic Institute” (Ukraine).

#### **Post-war renovation, educational needs and social issues:**

Since 23 February, 2022 till nowadays civilians in Ukraine have suffering due to war: many people from southern and eastern regions have moved to western part of the country or even abroad, where they have got social, financial and psychological support together with the chance to find appropriate job. But modern jobs require from job seekers to operate even on basic level by digital skills. Thus, short-term educational courses adopted to needs of adult learners with different previous educational background are the best solution for training future farmers (for family farms, micro- and small agribusiness startups etc.) as like as for facilitation their life in general, considering needs of evacuated from conflict zones old lonely people who have lost their social connections, ownership, friends or family members. These categories of people are the most socially unprotected groups incorporated in new societies under patronage of municipal and regional services for providing of social protection and support.

#### **Solutions for current and future social needs and issues:**

- **Solutions for urban areas.** On March 28, 2024, the staff of our partner organization, Territorial Center for the Provision of Social Services of the Kievsky District of Kharkiv city, took part in the work of the online platform for the exchange of experience in the provision of social services to representatives of territorial communities. During the communication with colleagues, many interesting proposals and ideas were discussed to improve the provision of social services to representatives of communities in Kharkiv and Kharkiv region. The model of the Third Age University, which was introduced and recognized as one of the promising areas for the development of social adaptation services. In the methodological sense, the University of the Third Age provides for a harmonious combination of educational components, group psychological training sessions with elements of labor adaptation in the form of interesting master classes and a cognitive and local history element - excursions and lectures on the history and culture of the Kharkiv region.
- **Solutions for countryside.** We create and develop in partnership with US and European partners short-term, non-degree thematic practice-oriented courses. Our “School of Applied Poultry Farming” provides offline and online classes, as well as field courses around different regions of Ukraine. Also, active calumnies of this school can get our support (consulting) and assistance in applying for micro-, mini- and small or medium size grants to develop own, family or cooperative businesses.
- **Solutions for renovation of supply chains and creating new remote work places for refugees and veterans.** In cooperation with Kharkiv municipal department of digitalization since 13 November, 2024 we will start social - educational project “Digital literacy for all” on base of Territorial centers as first-level educational non-degree two-month course to develop digital skills considering educational background and needs of different categories of learners. Obtained skills will be helpful for old people and for representatives of younger generations who has faced with complicated life situation and should to adopt herself/himself to new wartime and post-war reality.

#### **Conclusions.**

##### **Target audience:**

- **socially unprotected community members** (refugees & veterans, old lonely people & people with obtained due to war disability);
- **members of territorial communities close to military conflict zone** who willing to restore their economic and social resilience.

**EDUCATION  
FOR  
ADULTS**

**HONCHAROVA, Olha**

*Keele University, School of Humanities (UK);  
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## **MAPPING MAY SINCLAIR PAPERS: INNOVATIVE APPROACH**

### Mapping May Sinclair Papers: Innovative Approach

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#### Introduction

May Sinclair (1863-1946) was a prolific English writer, literary critic, philosopher, modernist intellectual. Her archive donated ten years ago to the University of Sussex, remained unsorted and uncatalogued. In 2024, a team of Sinclair scholars involving Dr. Rebecca Bowler, Dr. Olha Honcharova (Keele University), Dr. Claire Drewery (Sheffield Hallam University), and archivist Karen Watson (University of Sussex) won funding from the British Academy / Cara / Leverhulme Research Support Grants to create an innovative e-catalogue of the May Sinclair Papers.

#### Methodology

It was a unique collaborative project in which the academics and archivist united their skills to create an innovative, publicly accessible digital resource. The process included sorting and reordering the papers; creation a multi-level item catalogue adapted for online ordering system; writing short scholarly notes / comments on the manuscripts and integrating them as metadata in the catalogue.

#### Results

The catalogue of the May Sinclair Papers is now accessible at [https://www.thekeep.info/collections/getrecord/GB181\\_SxMs172](https://www.thekeep.info/collections/getrecord/GB181_SxMs172). It has the following hierarchy: novels; short fiction; plays; poetry; non fiction; personal material. The short critical reviews, incorporated in the catalogue, reveal the state of the manuscripts and their relationship to other works or papers. Also, they contain biographical and intertextual commentaries, as well as references to May Sinclair archive at the Kislak Center, University of Pennsylvania.

## **THE IMPORTANCE OF MENTAL HEALTH IN WARTIME EDUCATION**

# The Importance of Mental Health in Wartime Education

### Why Mental Health Matters

In times of war education systems face incredibly difficult challenges. Amidst these, the mental health of educators often suffers the most. Ensuring mental well-being is crucial for stable and effective learning environment.



### Key Impacts on Mental Health

**Stress and Anxiety:** constant exposure to conflict can lead to heightened stress and anxiety.  
**Trauma:** witnessing or experiencing war-related violence can result in long-term psychological trauma  
**Displacement:** war often leads to displacement, disrupting education and creating instability that affects mental health.

### Benefits of Supporting Mental Health

Enhanced Learning  
Resilience Building  
Community Strength



### Strategies for Supporting Mental Health

**Counseling Services:** providing access to counselors and mental health professionals in schools.  
**Safe Spaces:** creating safe and supportive environments where students and educators can express their feelings.  
**Mental Health Education:** integrating mental health awareness into the study program.  
**Peer Support Programs:** establishing peer support groups to encourage sharing and support.

By **Horb Viktoria**

**HORBATIUK, Andrii**

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

## **USE OF ARTIFICIAL INTELLIGENCE DURING DEVELOPMENT OF SOCIALLY SIGNIFICANT COMPETENCIES OF FUTURE MILITARY PERSONNEL OF THE NATIONAL GUARD OF UKRAINE IN THE PROCESS OF PROFESSIONAL EDUCATION**

Use of artificial intelligence during development of socially significant competencies of future military personnel of the National Guard of Ukraine in the process of professional education



Horbatiuk Andrii, PhD student (specialty 015 – Professional education),  
H.S. Skovoroda Kharkiv National pedagogical University, Assistant to the Head of  
educational department of the National Academy of the National Guard of Ukraine

### Abstract

Artificial intelligence (AI) aims to create software systems and algorithms that can reproduce human mental functions. AI facilitates the collection and processing of empirical data during the National Guard of Ukraine servicemen socially significant competencies development. AI helps to optimize and objectify the conduct of the empirical stage of research, expands functionality during the development of an informal education course within the scope of the research topic.

### Introduction

The martial law and the expansion of the National Guard of Ukraine functional duties determined the urgency to improve the quality of professional training and implementing a competency-based approach.

**The purpose of the study:** to specify the pedagogical conditions for the development of socially significant competencies of the National Guard of Ukraine servicemen, to develop an appropriate functional model, to check its effectiveness.

**The task of the research:** to specify the categorical field and the current state of development of socially significant competencies of the National Guard of Ukraine servicemen, to outline the features of the realities of martial law and the period of Ukraine recovery with the use of modern digital technologies; to develop a data collection model on the development of socially significant competencies of the National Guard of Ukraine future service men, to develop the content of appropriate forms of empirical data collection, to develop the content of the informal education course program for cadets.

**The scientific novelty of the study:** taking into account the factors of social and activity adaptation of a serviceman's personality during professional education, creating conditions for self-regulation, self-improvement in the unity of military training, upbringing, the use of modern AI.

### Materials and methods

**Materials:** the content of educational programs, learning artifacts, subjective impressions and local documents in the educational system of military personnel of the National Guard of Ukraine.

**Research methods:** study and analysis of cadets' academic works, results of current and final assessment, survey results and pedagogical observation, analysis of scientific and methodical works.

### Conclusions

Technologies and the potential of using artificial intelligence contribute to:

1. Mastering the latest achievements of scientific methodology, expanding opportunities for partnership between teachers and cadets;
2. Improving the quality of educational and extracurricular communications during professional training of future servicemen of the National Guard of Ukraine;
3. Expanding opportunities for cooperation with practitioners, representatives of other fields of knowledge and spheres of professional activity on a national scale;
4. Development of an informal education course program for the formation of socially significant competencies of servicemen of the National Guard of Ukraine using artificial intelligence technology.

### The field of AI application during the collection of data



### References



**POSTCOLONIAL CHINESE LITERATURE AND ITS PECULIARITIES**



**POSTCOLONIAL CHINESE  
LITERATURE AND ITS  
PECULIARITIES**

Ivan Khyzha, H.S. Skovoroda Kharkiv National Pedagogical  
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**BACKGROUND**

Postcolonial Chinese literature examines the legacy of colonialism and imperialism on Chinese society, culture, and identity. This literary genre explores how colonial histories and experiences have shaped contemporary Chinese narratives, addressing themes such as trauma, resistance, cultural hybridity, and linguistic decolonization.

**OBJECTIVES**

The objectives of this study are to explore the central themes and motifs of postcolonial Chinese literature, such as trauma, identity, resistance, and linguistic decolonization; to highlight the contributions of the most notable modern Chinese authors; to review significant literary works that embody the characteristics of postcolonial narratives; and to understand how this literature reflects and influences contemporary Chinese society and identity.

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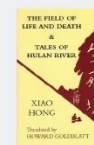
**RESULTS**

**Key Themes Identified**

- **Trauma and Memory:** Works reflect collective colonial traumas.
- **Identity and Hybridity:** Characters navigate complex identities shaped by cultural amalgamation.
- **Resistance and Subversion:** Narratives depict defiance against colonial powers.
- **Decolonization of Language:** Authors reclaim and blend traditional and modern language forms.

**Notable Representatives**

- **Ba Jin.** Explored social changes and colonial impact in "Family." His novel addresses conflict between traditional values and revolutionary ideals.
- **Eileen Chang (Zhang Ailing).** Mainly examined cultural clashes, personal desires and historical upheaval in a novel "Love in a Fallen City."
- **Xiao Hong.** In her novel "Field of Life and Death" highlighted rural resilience during Japanese occupation.



**CONCLUSIONS**

Postcolonial Chinese literature serves as a critical lens through which to understand the enduring impact of colonialism on Chinese culture and identity. By exploring themes of trauma, identity, resistance, and language, this body of work provides profound insights into China's historical and contemporary struggles. The contributions of authors like Ba Jin, Eileen Chang, and Xiao Hong are invaluable in shaping our understanding of postcolonial narratives and their socio-cultural implications.



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## **THE USE OF NEUROBOUNDARIES IN THE ENGLISH LANGUAGE AND LITERATURE FIELD**

# THE USE OF NEUROBOUNDARIES IN THE ENGLISH LANGUAGE AND LITERATURE FIELD

## PURPOSE

- INTEGRATION OF NEURAL NETWORKS IN THE PROCESS OF ONLINE HIGHER EDUCATION
- CHANGING TRADITIONAL MODELS OF LEARNING AND TEACHING
- ADAPTING TO THE LATEST TECHNOLOGIES AND MODERNISING THE EDUCATIONAL PROCESS
- HELPING TEACHERS PREPARE FOR LESSONS MORE EASILY

## RESULTS

- QUALITY AND PERFORMANCE OF STUDENTS IN THE CLASSROOM
- INCREASING STUDENTS' INTEREST IN THE TOPIC, BETTER VISUAL PERCEPTION OF THE MATERIAL
- MASTERY AND GREATER AWARENESS OF AL-TECHNOLOGIES
- PROVIDING TEACHERS WITH MORE QUALIFICATIONS, SKILLS AND ABILITIES THAT WILL LATER BECOME AN INVALUABLE ASSET IN THE PROFESSION

## CONCLUSIONS

- THE USE OF NEURAL NETWORKS IN THE FIELD OF LANGUAGE AND LITERATURE CREATES MANY NEW OPPORTUNITIES FOR IMPROVING THE EDUCATIONAL PROCESS
- THE INTRODUCTION OF INTERACTIVE LEARNING TOOLS IS MUCH MORE ENGAGING AND MOTIVATING FOR STUDENTS, THEREBY IMPROVING THEIR LEARNING OUTCOMES
- WE NEED TO ACTIVELY USE MODERN TECHNOLOGIES TO MOVE OUR COUNTRY FORWARD IN THE INTERNATIONAL ARENA AND DEVELOP IT IN TERMS OF EDUCATION
- THE USE OF ARTIFICIAL INTELLIGENCE IS A HUGE BREAKTHROUGH IN THE MODERN INFORMATION SOCIETY

PRESENTED BY:  
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SCIENCE ADVISOR:  
SOLOSHENKO-ZADNIPROVSKA N.K.

**MOTIVATING SCHOOLCHILDREN TO STUDY DURING THE WAR**

**MOTIVATING  
SCHOOLCHILDREN TO  
STUDY DURING THE WAR**



War causes significant stressful situations that affect the psychological state of children and their ability to learn. Teaching in times of war requires significant efforts from all stakeholders in the educational process, but with the right approach, it is possible to find ways to keep students motivated and ensure their learning even in difficult conditions. Helping to motivate students in times of war can include

**Understanding and empathy**

Teachers and parents need to show children that they understand their feelings and concerns.

**Creating a safe environment**

Even if children are in physically dangerous environments, it is important to create a psychologically safe environment where they can feel supported and protected.

**Flexibility**

Teachers should be prepared to adapt the curriculum to meet the new realities and capacities of students.

**Interactive teaching  
methods**

The use of interactive and integrated teaching methods can help to engage children and make learning more interesting.

**Online learning**

If physical attendance at school is unsafe, online learning can be an alternative.

**Electronic resource**

Use of e-books, curricula, and other digital resources.

**Volunteering**

Participating in volunteer projects can give children a sense of purpose and community.

**Psychotherapy sessions**

Access to psychotherapists or school psychologists to support children.

**Support groups**

Organising support groups to discuss emotions and experiences.

**Rewards and recognition**

Celebrating students' achievements, even small ones, to boost their self-esteem.

**Support for independence**

Promote independent learning skills and responsibility for their learning.

**Art and music**

Using creative activities to express emotions and reduce stress.

**Projects**

Integrating learning with project-based activities, which can be more interesting and motivating for children.



Krylova Veronika

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## WAR AND STUDY: DIFFICULTIES AND WAYS TO OVERCOME THEM

# WAR VS LEARNING

DIFFICULTIES AND WAYS TO OVERCOME THEM

### • EDUCATIONAL HURDLES

#### STRESS AND UNCERTAINTY

Children find it difficult to study while worrying about future danger and family safety amid shootings and explosions.

#### LACK OF RESOURCES

Students who are suddenly forced to study remotely from home or abroad often do not have the necessary workspace or even electricity, cell phone or internet.

#### DIFFICULTIES IN UNDERSTANDING SUBJECTS

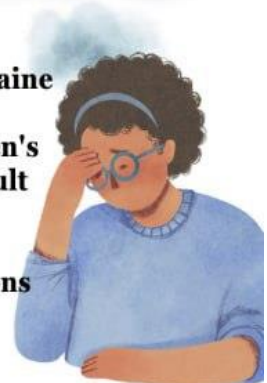
Children often study subjects at home without teacher support, but research suggests this doesn't always yield desired outcomes.

#### LACK OF SELF-DISCIPLINE

It is difficult to keep up with lessons without a school structure, and it is difficult for parents to motivate their children to study or play sports without the supervision of a teacher.



The start of the war in Ukraine created uncertainty for parents about their children's education, causing a difficult transition to distance learning. This prompted teachers to look for solutions based on their own experience.



### • OVERCOMING STRATEGIES •

#### MEANINGFUL AND CONCISE LESSONS

Teachers present topics in a way that is easy to understand and detailed. This minimizes the amount of additional learning students have to do at home. For this, the teacher needs skills and an interesting way of presenting school material (group, individual forms of work, research projects, various types of lessons, correspondence trips, etc.).

#### FLEXIBLE SCHEDULE

School administrators do not require children to submit assignments in a short period of time, understanding that students cannot always connect or find high-quality Internet. Flexible deadlines reduce the number of stressful situations, which are already abundant in war.

YELYZAVETA KURULIUK  
HS SKOVORODA KHARKIV NATIONAL PEDAGOGICAL  
UNIVERSITY



**SMART CITIES AND STRATEGIC PLANNING IN THE HUMAN FACTOR**

### Smart Cities and Strategic Planning in the Human Factor:



NEAR EAST UNIVERSITY FACULTY OF EDUCATION  
EDUCATIONAL, TECHNOLOGICAL, SUPERVISORY, EDUCATIONAL AND PLANNING DEPARTMENT

1. Uğur KUYUCUOĞLU  
Near East University

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3. Zehra ALTINAY  
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4. Gökmen DAĞLI  
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September 2024

#### Education

**\*\*Education is shaped based on the needs of society.** When the above studies are examined, the educational needs of today's society necessitate the reflection of digital transformation (internet, media, communication) on education based on its impact on individuals. Education will play a meaningful and meeting role with the correct analysis of technology. From this point on, the aim of the study is to examine **Healthy and Quality life, the formation of smart cities and the relationship between people and education.** Therefore, it can be said that conventional education methods do not adequately address the qualities of digital natives who grow up surrounded by digital technologies.

#### Impact of Education

- ✓ For this reason, it becomes important to carry out studies to develop lifelong learning, inclusiveness, awareness, change and participation both in the social and artistic education of children and in families from an early age.
- ✓ Education will play a meaningful and meeting role with proper analysis of digital transformation. Starting from this point, the study aims to examine the relationship between the current state of information and communication technologies, smart cities, smart people and education.
- ✓ Information and communication technologies are rapidly changing and transforming urban life, culture and habits of urban residents. As a result of this transformation, the city's usage patterns, the demands and the dimensions of cultures are taken to completely different dimensions.

#### Consumption-Happiness, Welfare and Evaluation System

**We observe that ensuring that the city's natural environment is taken care of is also the main priority goal of cities. At this point, apart from the basic foundations, the primary goal should be to accurately determine the urban need, to identify the appropriate technology, to provide the necessary technology and data to the cities to provide the necessary infrastructure, and to manage the necessary human resources.**

#### Summary: Education and Culture

- A healthy society is possible with a healthy culture. A healthy relationship between culture and society contributes to the development of both society and culture. Education is the most effective of this mutual relationship that ensures the development of the two elements together. **Art education** has a special importance in terms of cultural development in the field of education. Education increases and accelerates the impact of culture on society. Depending on the change created by culture in society, social changes affect culture and accelerate cultural development. To put it in the closest terms, when culture changes, society changes, and when society changes, culture changes.

#### Conclusions

Must focusing on three important goals among the sustainable development goals, by listing the sustainable goals related to lifelong learning, quality life and health, and by examining the application areas, the criteria of quality life, which has a major role in human life: **Age, income, \*\*education, living environment, \*\*residence and its \*\*features, \*\*architecture and belonging to the most livable environment and a perspective on new innovations around people, are presented.** Finally, recently, technological developments have been made in cities so that people can live a better quality and healthier life. A few examples of new applications research conducted together are shared.

#### Recommendations

Factors such as rapid urbanization, changing demographic characteristics, and limited resources are the main factors that trigger changes in needs. All needs of city stakeholders, including their unnoticed needs, should be analyzed and evaluated by collecting data. It is not limited to the services provided by city stakeholders through traditional channels, but also by utilizing **\*Information System Technologies** (deep learning, research, artificial intelligence applications, e-government, internet of things, cloud technology) and in this context, lifelong learning, which are the elements of qualified education, should include all citizens. It is of vital importance to play/create technical human resources that will use these (ICT) in the field of education. The points that will make human life easier and improve in life should be identified.

#### Conclusions

**Quality Education target of the Sustainable Development** Goal and to implement sustainability efforts, for example; They have implemented a series of protective actions to encourage environmentally friendly travel that prioritizes human health, such as congestion pricing (London), polluter pays (Costa Rica), Electric Cars (China), and the use of bicycles and walking paths (Netherlands). Thanks to its public transportation system using driverless vehicles, Singapore is among the world's leading smart cities. In Barcelona, garbage collection services are optimized by remotely monitoring the garbage level through sensors placed in garbage bins. It has also been decided to use smart water systems to manage irrigation in the green areas of the city. Sensors in street lamps adjust the light intensity according to daylight.

#### Recommendations

Smart city: The transformation should start by focusing on the desired future, based on people-oriented, healthy and quality life, lifelong learning and inclusiveness in education;  
**\*\*Creating a vision by taking inspiration from the future, including the activities to be carried out to achieve this vision within the mission framework, and determining smart human strategies (Leaders) that will support them and put them into action constitute the basic pillar of the transformation.**

#### Recommendations

Also, **\*\*Maslow** in his theory, he listed the basic needs that must be met in human life and emphasized that the quantity and quality of these needs are important. For quality of life and healthy individuals, these needs must be learned and taught by every individual at **EVERY EDUCATIONAL LEVEL**.  
**\*Today**, in order for a society to be considered culturally successful, it is necessary to overcome injustice, which is the biggest cause of social discomfort in the society.  
**\*\*\*Overcoming** injustice, and eliminating gender discrimination, income injustice, and inequality of opportunity in education should be the primary goal of country leaders.

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## **RESTORING EDUCATIONAL PROCESSES AFTER THE WAR: INTEGRATING THE LATEST HR APPROACHES INTO TEACHING**

### **RESTORING EDUCATIONAL PROCESSES AFTER THE WAR: INTEGRATING THE LATEST HR APPROACHES INTO TEACHING**

#### **Objective**

- The study examines how modern HR approaches can restore the educational process after military conflicts.
- Key strategies: emotional intelligence, employee engagement, communication, change management.
- Goal: Identify HR practices that enhance motivation, psychological comfort, and productivity, supporting teachers and students in adapting to post-war challenges.

**Emotional Intelligence:** Enhances understanding and support between students and teachers, reduces group tension, and increases stress resilience.

**Adaptive Leadership:** Educational leaders respond quickly to societal changes, adjusting curricula and teaching methods to new realities.

**Change Management:** Facilitates the adoption of new learning tools, especially digital technologies, which are essential in modern education.

**Psychosocial Health:** Mental health support programs help mitigate risks of burnout and emotional exhaustion.

**Team Cohesion:** Training on communication and conflict resolution fosters the development of strong teaching teams.

#### **Results**

#### **Conclusions**

- The integration of HR strategies not only reorganizes educational institutions but also creates a supportive learning environment that considers post-war realities.
- Modern HR approaches restore trust between teachers and students, improving education quality through mental health support and professional competency development.

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**INFORMAL FORMS OF EDUCATION IN THE FIELD OF HOSPITALITY:  
ADVANTAGES AND DISADVANTAGES**

**INFORMAL FORMS OF EDUCATION IN THE FIELD OF  
HOSPITALITY: ADVANTAGES AND DISADVANTAGES**

2024

DENYS PETRUNCHAK

October

OBJECTIVE

In light of the dynamic growth of the service sector and increasing competition, there is a necessity to explore new methods of hospitality as well as innovative approaches to education in the field of hospitality. Thus, the application of informal learning forms is becoming increasingly relevant.



**The advantages of these informal learning methods can be outlined as follows:**

- Flexibility
- Practical orientation
- Motivation for self-directed learning
- Networking opportunities

**There are several drawbacks**

- Lack of standardization
- Limited certification
- Insufficient theoretical foundation
- Costs of self-directed learning

RESULTS Informal learning forms in the field of hospitality may encompass a range of diverse approaches and methods, including training sessions and workshops, online courses, internships, mentorship, knowledge exchange, group projects, case studies, webinars, and more.

CONCLUSION Thus, the use of informal learning forms in the field of hospitality presents both advantages and disadvantages. The application of informal methods can significantly enhance interest and motivation for learning compared to traditional approaches, as well as encourage the acquisition of practical skills. However, it is essential to develop appropriate standards for assessing such informal programs in accordance with educational standards and regulations. Additionally, there should be efforts to support the recognition of certificates obtained after completing courses, workshops, and training sessions at the national level, while also promoting the development of informal learning methods that are rapidly gaining traction and encourage the enhancement of professional skills and competencies.

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## **INCLUSIVE SERVICE LEARNING AS A PROJECT-BASED TOOL FOR EDUCATIONAL AND SOCIAL RECOVERY IN POST-WAR UKRAINE**

### **INCLUSIVE SERVICE LEARNING AS A PROJECT-BASED TOOL FOR EDUCATIONAL AND SOCIAL RECOVERY IN POST WAR UKRAINE**



Presented by Julia Pishak and Sergiy Sydoriv

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### **OBJECTIVE**

To define the content and structure of inclusive service learning and suggest the ways of adaptation it to the post-war realities as well as to develop the project themes that will promote meaningful cooperation, foster individual, community and national resilience.



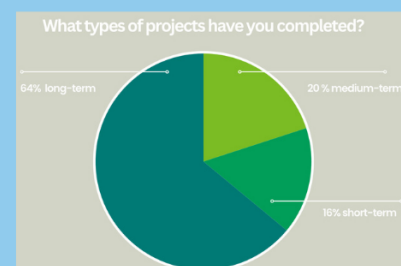
### **RESULTS**

1. various types of projects, their content and structure are analyzed;
2. the five-facet model for inclusive service learning that comprise theory, experiential learning, community projects, dialogue, and reflection is discussed;
3. key project themes suitable for implementation during class and extracurricular activities are identified;
4. The 'WE WERE BORN ON THE GRAND AND VITAL HOUR' inclusive service learning project is showcased.



### **CONCLUSIONS**

The world after the war will require a new cooperative paradigm. Inclusive project-based learning is an effective tool that fosters resilience, support and practical skills among students and their communities. The proposed themes can significantly enhance the quality of teaching and learning and boost the national integrity, especially in the context of post-war recovery of Ukraine.



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## **IS IT POSSIBLE TO ENSURE SPEECH AND COMMUNICATION RIGHTS IN CONDITIONS OF WAR?**

### **IS IT POSSIBLE TO ENSURE SPEECH AND COMMUNICATION RIGHTS IN CONDITIONS OF WAR?**

On February 24, 2022, after the full-scale invasion of Ukraine by the Russian Federation, the daily life of Ukrainians dramatically changed. Among the widespread violations of human rights during the conflict, the ability to access essential services, such as speech therapy, was severely compromised.

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#### **INTRODUCTION**

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Today, the relevance and importance of the right to communication, its protection and implementation, are undeniable. Without this right, individuals with speech and language difficulties are left without a voice. Effective communication is essential for realizing other human rights and freedoms, including the right to education, social integration, and psychological well-being. This right is enshrined in human rights treaties that guarantee every individual the ability to express themselves. In practice, however, armed conflicts and situations of violence often prevent speech therapy services from being accessible, particularly to vulnerable groups such as children and individuals with disabilities.

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#### **RESULTS**

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The war has led to significant interruptions in speech therapy services. Many people, especially children, who require speech-language interventions have been displaced, deprived of access to therapists, or traumatized, exacerbating existing speech problems or creating new ones. The use of explosive weapons, missile attacks, and the destruction of infrastructure have severely limited the ability of professionals to offer essential services, while the need for such services continues to grow. War-related trauma has resulted in increased cases of speech delays, aphasia, and other communication disorders. The lack of access to rehabilitation services leaves individuals with long-term impacts that are difficult to reverse without proper intervention.

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#### **LEGAL REGULATION**

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The right to communicate is an extension of the broader right to life and personal development. According to international human rights law, states must provide access to healthcare, including rehabilitation services, even in times of conflict. In Ukraine, the Constitution guarantees the right to health and medical care, which includes speech therapy services for those in need. However, the reality of war limits the state's ability to ensure these rights. International organizations have called for the protection of healthcare workers and therapists to ensure the continued provision of essential services during conflict.

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#### **CONCLUSION**

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The war in Ukraine has created a crisis for individuals with speech and communication disorders. It has highlighted the importance of ensuring that even in times of conflict, vulnerable populations have access to essential rehabilitation services. Speech therapy is not only about restoring language skills; it is also about giving individuals the ability to interact with the world and to live with dignity. Moving forward, it is crucial to ensure the protection of speech and communication rights, provide trauma-informed care, and restore access to services for those affected by the war.

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**STYLISTIC FEATURES OF B. JOHNSON'S AND J. BIDEN'S POLITICAL SPEECHES REGARDING THE RUSSO-UKRAINIAN WAR**

**STYLITIC FEATURES OF B. JOHNSON'S AND J. BIDEN'S POLITICAL SPEECHES REGARDING THE RUSSO-UKRAINIAN WAR**

Anna Pohorila, an associate professor of the Department of English Language Practice and Methods of Its Teaching of Ivan Franko State Pedagogical University of Drohobych  
Halyna Kostetska, an English teacher, Municipal Institution of Lviv Regional Council "Regional Scientific Lyceum", Drohobych

**The aim of the study** is to provide the analysis of stylistic devices used by a former British prime minister Boris Johnson and the current US president Joe Biden in their political speeches concerning the current political situation in Ukraine

**The main objectives are**

- to interpret the meaning of a political discourse, identify and describe its linguistic features;
- to define the role of stylistic devices in a political discourse;
- to characterize the functional features of stylistic devices in political speeches regarding the Russo-Ukrainian war

**The object of the study** is stylistic devices that ensure the effectiveness of a political speech, informing and influencing the target audience

**The subject of the study** is Boris Johnson's and Joe Biden's political speeches regarding the Russo-Ukrainian war

**The research is based on** the comparative analysis of stylistic means in 5 J. Biden's and 5 B. Johnson's political speeches regarding the war between Russia and Ukraine. The results (diagr.1 and diagr.2) show the most common use of metaphors in both politicians' speeches (46% and 59% respectively) and the distinctive feature which is in the use of rhetorical questions solely by J. Biden (7%)

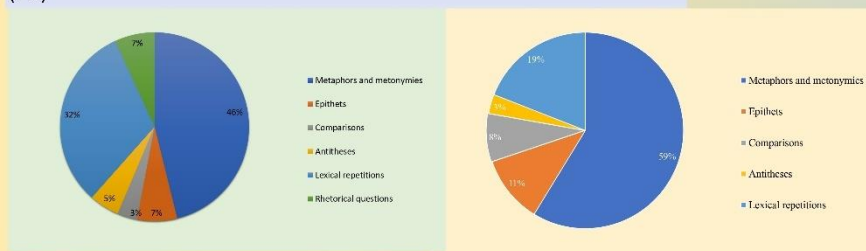


**Pic.1 What's the future of Ukraine?**

<https://lhshorizon.com/wp-content/uploads/2022/12/Ukrainian-War-credit-Noemie-Rivera-pdf.jpg>

**The research methods** are the theoretical analysis of scientific sources, descriptive and comparative methods, a definitional and contextual analysis

**The practical value of the study** is determined by the possibility of applying its results as illustration examples in the process of studying stylistic devices in linguistics



**Diagr.1 Stylistic devices in Joe Biden's political speeches**

We will have a different **future - a brighter future rooted in democracy** and principle, hope and light, of decency and dignity, of **freedom** and possibilities

<https://millercenter.org/the-presidency/presidential-speeches/march-26-2022-remarks-support-people-ukraine>

**Diagr.2 Stylistic devices in Boris Johnson's political speeches**

And if the **months ahead are grim**, and **the flame of freedom burns low**, I know that **it will blaze bright** again in Ukraine

<https://www.gov.uk/government/speeches/prime-ministers-address-to-the-nation-on-the-russian-invasion-of-ukraine-24-february-2022>

**Conclusions**

- Political discourse of both politicians is multifaceted, thematic and audience-oriented
- B. Johnson's and J. Biden's political speeches contain various stylistic devices aiming at affecting the feeling and emotions of the audience and focusing their attention on the complication of the message about the Russo-Ukrainian war
- The use of stylistic devices by both politicians makes their speeches more expressive and memorable to the audience but the approach in choosing these means to convey the same message differs



**Pic.2 Like the phoenix they will rise again**

<https://e0.pxfuel.com/wallpapers/671/720/desktop-wallpaper-phoenix-ukraine-s22-bird-fire-black-samsung-ultra-rise-thumbnail.jpg>

**TEACHING ENGLISH TO CHILDREN WITH  
SPECIAL EDUCATIONAL NEEDS (SEN)**

# Teaching English to children with special educational needs (SEN)

**Presented by: Kristina Povoliako, 3rd year student, H.S. Skovoroda Kharkiv National Pedagogical University**

Teaching English to children with special educational needs (SEN) requires careful planning, patience, and the use of adaptive strategies to meet their unique learning requirements. Here are some key considerations and methods:

## Individualized Approach

Each child with SEN has unique abilities and challenges. It's crucial to understand their specific needs, whether it's cognitive, emotional, physical, or behavioral. Creating an Individualized Education Plan (IEP) helps tailor lessons and goals to their abilities, ensuring that learning is both accessible and meaningful.

## Multisensory Learning

Using visual aids such as pictures, flashcards, videos, and interactive games helps children understand and retain language better. Multisensory approaches, which engage sight, hearing, touch, and movement, cater to different learning styles and make lessons more engaging.

## Clear Instructions

Break down complex instructions into simpler, clear steps, and use straightforward language. Repeating instructions in different ways helps ensure understanding. Avoid overwhelming children with too much information at once and provide sufficient time for them to process the material.

## Consistent Structure

Children with SEN often thrive in a structured environment where lessons are predictable and routines are consistent. A regular schedule and familiar classroom setting help reduce anxiety and build confidence in learning. Introducing changes gradually and explaining them in advance is also important.

## Use of Assistive Technology

Many children with SEN benefit from assistive technologies. These include text-to-speech software, interactive language learning apps, or devices that aid in communication. These tools can make English learning more accessible and engaging for children with varying needs.

## Positive Reinforcement

Children with SEN need continuous positive reinforcement to stay motivated. Celebrate small achievements, provide constructive feedback, and encourage effort rather than focusing on mistakes. Creating a supportive learning environment fosters confidence and a positive attitude toward learning English.

## Peer Support and Group Work

Incorporating peer support systems can be effective. Assigning a buddy or working in small groups allows children to learn from their peers in a social, less formal setting. This encourages communication, collaboration, and social interaction, which are crucial components of language learning.

## Adapted Curriculum

Depending on the child's abilities, it may be necessary to adapt the English curriculum. This could involve simplifying vocabulary, focusing on functional language, or emphasizing listening and speaking over reading and writing. Flexibility is key to ensuring that all children can participate and succeed at their own level.

Teaching English to children with special educational needs is a rewarding but challenging task that requires adaptability, creativity, and patience. By tailoring the approach to their individual needs and making learning engaging and supportive, teachers can create a positive environment that fosters success and growth.

Science advisor Soloshenko-Zadniprovska N.K.

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## ADVANTAGES AND DISADVANTAGES OF THE EMOTIONAL TURN IN EDUCATION

### ADVANTAGES AND DISADVANTAGES OF THE EMOTIONAL TURN IN EDUCATION

*Presented by: Pyshynska Vladylena, post-graduate student,  
H.S. Skovoroda Kharkiv National Pedagogical University*

**Purpose:** identifying  
advantages and disadvantages  
of the emotional turn in  
education.

During the last few decades there have been extraordinary developments in the research on the emotions, not only in the realm of psychology, medicine and neurology – areas in which this interest is something to be expected –, but more generally in the realm of the humanities and social sciences...[1, c. 27].

**The emotional turn** is a change in the educational paradigm, which involves shifting the focus from purely cognitive approaches and expanding emotional ones. Emotions are perceived as the main component of education, which affects academic success, motivation, socialization and the general state of well-being of students. 😊

#### Signs of emotional turn in Ukraine:

##### 1. Education reforms:

- The New Ukrainian School, a key educational reform, states that the ability to constructively manage emotions and apply emotional intelligence is a common competence;
- Implementation of the All-Ukrainian experiment «Organisational and pedagogical conditions for developing soft skills in students through Social, Emotional and Ethical Learning».

##### 2. Increase in the number of professional development courses, trainings and webinars aimed at developing emotional competences:

- Course on psychological and emotional support for teachers and school psychologists «I understand» created by «Osvitoria»;
- Professional development programme for teachers of general secondary education institutions «Understanding emotional literacy as an important element of education» by the educational ombudsman office.

##### 3. Implementation of emotional support programmes:

- The All-Ukrainian mental health program «How are you?»;
- International programme «Social, Emotional and Ethical Learning».

##### 4. Research of the scientists:

- For the query «emotional well-being», 3,570 results were found in Google Scholar between 2012 and 2014. In the period from 2022 to 2024, the number was 9,840, which indicates an increase in interest in emotion research.

#### Advantages

- **Preserving the emotional and physical health of students.**
- Increase the effectiveness of the learning process. Positive emotions help to activate cognitive processes, develop heuristic thinking and encourage harmonious cooperation [2, c. 115].
- Decrease conflicts and increase socialisation. There is no doubt that understanding each other's emotional needs will help reduce conflicts, improve discipline and build relationships within the team.
- Developing resilience that will help students better adapt to adulthood and the various changes that come their way.

Parts of the programme however go well beyond this and simply promote the language and practices of psychotherapy in schools [3].

#### Disadvantages

- Presence of risks that related to the lack of competence of teachers, which can lead to the incorrect use of techniques and methods aimed at improving emotional well-being.
- Decrease in academic performance due to the redistribution of time, which is affected by the implementation of techniques and methods aimed at developing emotional intelligence, resilience, etc.
- Focusing on emotional support and creating a positive learning environment can lead to infantilisation of students, who will expect constant help from teachers.
- Complexity of integration an emotional approach into educational programs, especially for subjects of the physical and mathematical cycle, which will require updating programs, creating educational materials, and additional training of teachers.

#### Conclusions

In the modern Ukrainian context, an emotional turn is a necessary element of education that will help students overcome traumatic experiences, increase motivation to study, and restore social ties. The emotional turn has an inexhaustible potential for improving the educational process and preserving the emotional health of students, but its implementation requires a balanced approach, where emotional techniques and methods are a means, not a goal.

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**THE ROLE OF CRYPTOCURRENCIES IN FINANCING CONFLICTS**

**THE ROLE OF CRYPTOCURRENCIES IN FINANCING CONFLICTS**

Presented by: Bohdan Rozumnyi, post-graduate student, Yaroslav Mudryi National Law University

The aim of this research is to explore the role of cryptocurrencies in the financing of conflicts, focusing on how digital assets are used to fund war effort.

How are cryptocurrencies being used to fund military operations?



How do cryptocurrencies bypass traditional financial systems?



What are the risks and challenges for global security?



**Crowd funding War Efforts:** Several militant groups in the Middle East, such as ISIS and Hezbollah, have utilized Bitcoin for crowdfunding campaigns aimed at purchasing arms and logistical equipment for their operations.

**Hacking and Theft:** Some groups engage in hacking and cryptocurrency theft to acquire funds. These stolen assets can be laundered through a series of transactions or converted into cash through various methods, bypassing traditional financial systems.

**Arming Non-State Actors:** Increased funding through cryptocurrencies may empower non-state actors, leading to a more fragmented and violent conflict landscape.

**Privacy Coins and Anonymity Tools:** Terrorist organizations have reportedly shifted from Bitcoin to privacy coins like Monero to reduce their exposure to blockchain tracing technologies used by law enforcement



**Undermining State Authority:** The rise of DeFi can undermine state authority and the effectiveness of governance in conflict zones, as armed groups or criminal organizations may establish parallel financial systems.

The role of cryptocurrencies in financing conflicts presents significant challenges to global security. To address these risks, international cooperation and innovative regulatory frameworks are essential. Policymakers must adapt their strategies to mitigate the adverse impacts of cryptocurrencies in conflict zones, ensuring that digital currencies do not exacerbate violence and instability in vulnerable regions.

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## **THE ROLE OF THE ESL TEACHER IN THE FORMATION OF STUDENTS' PERSONALITIES**

### **THE ROLE OF THE ESL TEACHER IN THE FORMATION OF STUDENTS' PERSONALITIES**

**Topicality:** It is essential to recognize educators' profound influence on shaping learners' identities, social skills, and overall personal growth. In order to combine the direct educational and upbringing goals as well as avoid the potential negative effects.

**Purpose** of the abstract is to describe the potential positive impact an ESL teacher might have on students' personality formation and describe how the educational process might benefit from it.

#### **Linguistic and Cognitive Development**

At the core of the ESL teacher's role is the facilitation of language acquisition. However, language learning extends beyond grammar and vocabulary; it encompasses cognitive processes that influence how students think and interact with the world.

#### **Fostering Confidence and Self-Esteem**

An effective ESL teacher creates a supportive and encouraging environment where students feel safe to express themselves, make mistakes, and learn from them.

#### **Cultural Competence and Awareness**

ESL teachers are often cultural ambassadors, introducing students to various customs, traditions, and perspectives through language learning. By incorporating multicultural content into their lessons, teachers help students develop empathy and respect for others.

#### **Social Skills and Collaboration**

Language learning is inherently social, and ESL classrooms provide a unique setting for students to develop interpersonal skills. Group activities, pair work, and discussions allow students to practice communication and collaboration, thereby enhancing their ability to connect with peers.

#### **Motivation and Lifelong Learning**

A significant aspect of an ESL teacher's role is to instill a love for learning in their students. By connecting language lessons to students' interests and real-life situations, teachers can ignite curiosity and intrinsic motivation.

#### **Conclusion**

Through fostering cognitive abilities, building confidence, promoting cultural awareness, enhancing social skills, and encouraging a love for learning, ESL teachers significantly contribute to the formation of well-rounded individuals. As educators, their influence extends far beyond the classroom, equipping students with the tools necessary to thrive in a complex, multicultural world.

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## **THE IMPACT OF MINDFULNESS ON EMOTIONAL REGULATION IN STRESSFUL SITUATIONS**

# THE IMPACT OF MINDFULNESS ON EMOTIONAL REGULATION IN STRESSFUL SITUATIONS

### **Stress: a universal challenge**

In today's world, stressful situations have become an integral part of our lives. Whether it's professional challenges, personal difficulties, or global events such as wars or natural disasters, all of these can significantly impact our mental health. An important aspect that enables us to cope with stress is emotional regulation. This is the ability to manage one's emotions, control reactions to stressors, and maintain psychological balance. One of the most effective tools that promote emotional regulation is mindfulness.

### **What is Mindfulness?**

Mindfulness is the ability to be present in the moment and aware of one's thoughts and emotions without judgment. It helps individuals understand their reactions, leading to more appropriate responses to stress. Research indicates that mindfulness practice significantly enhances emotional regulation, reduces anxiety and stress levels, and improves overall well-being. Thus, studying the impact of mindfulness on emotional regulation in stressful situations is highly relevant.

### **Unveiling the connection**

The primary goal of our research is to examine how mindfulness affects emotional regulation in stressful situations by investigating the correlation between mindfulness levels and emotional regulation effectiveness. We aim to determine how mindfulness enhances emotional awareness and coping strategies, while also analysing its impact on psychological well-being and resilience.

### **Methodology**

To achieve our research goals, we used a quantitative survey method. A structured questionnaire assessed mindfulness and emotional regulation, asking participants about their experiences in stressful situations and mindfulness techniques.

### **Results and scientific significance**

Our research demonstrates that mindfulness positively influences emotional regulation in stressful situations. Participants with higher levels of mindfulness exhibited better emotional awareness, effective coping strategies, and quicker recovery from negative emotions. These findings highlight the value of integrating mindfulness into daily life to enhance psychological well-being and resilience. This study enriches our understanding of the role of mindfulness in emotional regulation and suggests directions for future research. Practically, the results provide a foundation for developing effective psychological techniques that can assist psychologists in enhancing mindfulness skills and improving emotional control among their clients.

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## **PRACTICAL ECLECTICISM IN FOREIGN LANGUAGE TEACHING**

### **PRACTICAL ECLECTICISM IN FOREIGN LANGUAGE TEACHING**

**Author:** Tetiana Viediernikova, H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine.

#### **Introduction**

The 21st century dictates new realities, when it is important to study, to be mobile, organized, adapted to any conditions, even the most extreme. COVID-19 and full scale war invasion has changed attitudes towards education and language learning in particular. Many people, striving to learn foreign languages, try to find convenient and innovative approaches to learning that will be relevant to their needs and meet the requirements of life in quarantine or any other disaster. Each teacher, as a professional, during the class changes roles, approaches to learning, so that his students and listeners are not only interested, but also provoke further independent study of the language outside the classroom.

#### **Abstract**

Modern methods, techniques and approaches to foreign language teaching determine the best result of the student, taking into account the conditions of study, motivation and the final goal. Their use mostly forms a successful mix for each specific learning course. In this way, the system of modern education - is an efficient combination of various techniques, methods and approaches with an emphasis on the goal, to be achieved by specific students. It can learning a new level, deepening knowledge of grammar or vocabulary, improving speaking skills, learning professional English for lawyers, clerks or any other specialists. Principal Eclecticism is a harmonious combination of elements of various methods at each stage of the lesson, so the classes bring maximum benefit and satisfaction to the participants.

#### **Methodology**

##### **Callan's method**

A traditional method of learning a language by listening, speaking and repeating, but not memorizing grammatical structures and vocabulary. Classes are group and allow 5-10 people to study. The first lesson already involves speaking, which initially sets the stage for active involvement in the learning process. Errors are also corrected immediately and the material is repeated until the student and the teacher are 100% sure that everything can be reproduced correctly.

##### **Methodology of 25 frames**

Researcher James Vickery in the 50s of the 20-th century worked on the influence of subconscious factors in the semantics of words by watching the movie "Picnic" - one of the popular thrillers at that time. For this, a second movie projector was installed in the cinema. Some parts of the film were accompanied by the phrase that if you get hungry, eat popcorn and drink Coca-Cola. This method is used today to learn English. The essence is the same: watching an excerpt of the video, and as a result memorizing some individual words and phrases on a subconscious level with further reproduction. The technique is perfect for beginner listeners.

##### **The Birkenbiel method**

The methodology of the German management trainer Vera Birkenbiel involves learning the language as children do, that is, in a playful way, and it is best to learn as a child. This method is perfect for those who prefer to learn the language intuitively. The main focus is on auditory perception based on:

- Reading text in native language and comprehension.
- Listening to a text in a foreign language and simultaneous reading.
- Passive listening of a foreign language in everyday life.
- Speaking, reading and writing in a foreign language.

##### **Pimsler's method**

The Pimsler method is named after Paul Pimsler, a professor of applied linguistics, and is based on audio courses where attention is paid to listening, verbalization from the first lesson. The Pimsleur method recognizes that some words are more important than others. The language structure is studied from many simple sentences. The lesson lasts 30 minutes, during which students listen to the proposed dialogue, then answer simple questions, repeat the material of the previous lesson, remember new words by using them in speech. A course of 30 lessons involves learning 250-300 words.

##### **Stahl's method**

Winfried Stahl's method, which is over 30 years old, is based on the fact that both hemispheres of the brain must interact for successful learning, especially in language learning - the key to this is to create situations that support the anchoring of language in long-term memory, for example when learning words in the form of poems, where rhyming is observed. The most important thing is that these poems are embedded in some everyday situation. Rhymes are pronounced by native speakers on sound media, and are accompanied by specially selected music. This creates additional contact points for receiving new information.

##### **Learning in motion**

An excellent method for learning the language both for children who find it difficult to sit in one place, and for adults who like morning or evening runs. While running or exercising, you can listen to specially selected language podcasts or just dialogues instead of loud music. Movement activates blood circulation, therefore the results of memorization increase. This method is somewhat similar to the full physical response method, when the language is learned through the physical execution of commands. The student responds by following the command with a physical action. It helps students actively associate meaning with language and passively recognize language structure.

##### **The LAMP method**

This technique was developed by Thomas and Elizabeth Brewster, who suggested that learning a language can only be done through practice. The method focuses on listening and understanding language, while less attention is paid to vocabulary and grammar. During classes, students combine conversational situations and actions, establishing language connections between them. Short dialogues are learned by heart, which allows you to quickly learn to speak in a familiar situation.

##### **Ohlendorf's method**

The method is oriented more on oral communication. First of all, grammar rules are explained to students and certain words are given. Then they use them in pairs, thus practicing their speaking.

#### **Conclusion**

The effectiveness of teaching methods depends both on the characteristics and level of professional training of the teacher, and on different individual characteristics of students (not only from the coefficient of their intelligence - IQ). Modern research results pointed out the complex structure of a person's abilities to master new language. This structure includes components: verbal (linguistic), musical, logical (mathematical), spatial (visual), motor (kinetic), interpersonal (social) and intrapersonal (self-analysis). Teacher's choice of teaching methods and techniques largely depends on which component of the ability structure of students are more developed.

**EXAMINING THE CORRELATION BETWEEN STAGES OF THE CREATIVE PROCESS AND DESIGN PHASES**

**Examining the Correlation Between Stages of the Creative Process and Design Phases**

Presented by Vitchynkina Kateryna

College of International Education Wuhan University of Technology, PRC

**Purpose**

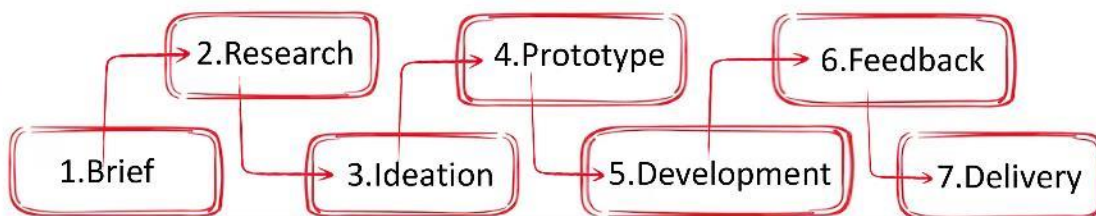
The relevance of correlating stages of the creative process with design stages lies in the fact that in today's world, saturated with competition and rapid changes, effective design becomes a key factor of success. By comparing the stages of the creative process with design stages, we can better understand how creativity and strategic thinking merge to create innovative and user-centered solutions that meet modern market demands and needs.

**Results**

**Correlating stages of the creative process with design stages**

1	<b>Creative process:</b> defining the problem statement	<b>Design process:</b> defining the project goals and objectives.
2	<b>Creative process:</b> defining the topic or issue, gathering key information	<b>Design process:</b> understanding requirements, market research
3	<b>Creative process:</b> brainstorming, selecting and developing ideas	<b>Design process:</b> brainstorming, creating concepts, designing ideas
4	<b>Creative process:</b> selecting the best idea and developing the concept	<b>Design process:</b> developing layouts and design concepts
5	<b>Creative process:</b> implementing the idea into real life	<b>Design process:</b> implementing the design, making prototypes, creating the final product
6	<b>Creative process:</b> evaluating the result and its alignment with the set tasks	<b>Design process:</b> critically analyzing the completed project
7	<b>Creative process:</b> correcting errors, optimizing and developing the idea	<b>Design process:</b> making changes based on received feedback

**Main stages of the creative process and design process**



**Conclusion**

Correlating stages of the creative process with design stages provides the opportunity to better understand and optimize the design creation process, thereby facilitating more efficient task resolution and meeting user needs in the modern environment where design serves as a key element of product and service success.



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## **VIRTUAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF PRESCHOOLS**

PRESENTED BY: ANNA YUKHTA

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# VIRTUAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF PRESCHOOLS



## **VIRTUAL EDUCATION IN UKRAINE**



## **IMMERSIVE LEARNING METHODS**

Today, immersive learning methods are becoming increasingly relevant and important, as they open up new horizons for education, significantly expanding the possibilities of information acquisition. Thanks to augmented reality (AR) and virtual reality (VR) technologies, the learning process becomes interactive, promoting better engagement and understanding of the material. AR allows the integration of digital information with the real environment, creating conditions for effective learning through interaction with virtual objects. At the same time, VR immerses users in a completely artificial world where simulations of complex situations, difficult to reproduce in reality, are possible. While augmented reality can be used on regular mobile devices, deeper immersion into the virtual world requires specialized VR headsets or glasses.

## **VIRTUAL EDUCATION WORLDWIDE**

In the USA, some preschools use VR and AR technologies for interactive learning, allowing children to immerse themselves in various educational environments — from exploring space to traveling to other countries.

In the UK, virtual reality helps preschool children develop creativity, social skills, and problem-solving abilities. For example, children can participate in virtual historical reconstructions or learn the basics of mathematics and science through interactive games. This promotes the development of abstract thinking and enriches the learning experience.

In Finland, known for its educational system, AR and VR technologies are used to develop language and cognitive skills. Children interact with virtual objects, which stimulates them to learn new words and expand their knowledge of the world. This also helps improve attention and concentration.

## **CONCLUSION**

Virtual methods in the educational process of preschools create opportunities for interactive and adaptive learning that meet the individual needs of each child, stimulating their cognitive development and creativity in a playful manner.

“ Despite the fact that preschool education in Ukraine has historically been based on physical interactions and real learning materials, virtual reality (VR) and augmented reality (AR) technologies are gradually being introduced as an innovative teaching method, allowing children to immerse themselves in various educational environments. One of the key aspects of virtual education in preschools is its flexibility and adaptability to the individual needs of each child. Through virtual learning methods, educators can tailor lessons to different levels of children's development, creating more personalized and inclusive educational programs. ”

**USING THE POTENTIAL OF GAMES TO OVERCOME CONSEQUENCES OF  
POST-TRAUMATIC STRESS DISORDER (PTSD) IN SCHOOLCHILDREN IN THE  
CONTEXT OF POST-WAR SETTLEMENT IN UKRAINE**

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USING THE POTENTIAL OF GAMES TO OVERCOME CONSEQUENCES OF  
POST-TRAUMATIC STRESS DISORDER (PTSD) IN SCHOOLCHILDREN IN  
THE CONTEXT OF POST-WAR SETTLEMENT IN UKRAINE

**Objective:** to describe the reasons, groups of schoolchildren and adults who can work with children with PTSD, the potential of the game, types of games.

**P** **Causes of war-related PTSD:**  
direct military action and armed conflict;  
captivity;  
involvement in violence (psychological and/or physical) or witnessing violence and tragic events;  
emotional pressure caused by acts of manipulation, threats and coercion into psychologically overwhelming conditions;  
death of loved ones and family members;  
severe medical conditions due to injury and other physical trauma;  
**R** loss of home, property, familiar social environment, pace of life.

**O** **Groups of schoolchildren with PTSD:**  
schoolchildren who were on the territory of military operations;  
schoolchildren who were displaced or refugees forced to migrate;  
schoolchildren who experienced physical violence;  
schoolchildren with special educational needs (disability, severe cognitive and psychological disorders);  
schoolchildren who became victims of bullying at school for various reasons (loss of motivation to learn, depression, high anxiety, low self-esteem).

**C** **Groups of adults who can work with children with PTSD:**  
Parents; Teachers; Social workers;  
Psychologists and psychotherapists; Medical professionals; Lawyers  
Volunteers and mentors; Leisure activity specialists  
Coordinators of child support programs in international organizations

**E** **Potential of the game for working with schoolchildren with PTSD:**  
creating safe environment for expressing emotions, experiences, fears, and insecurities by “trying on” the role of a game character in a game situation;  
strengthening adaptive capabilities to new conditions and cultural changes, strengthening resistance to adverse psycho-emotional impacts;  
restoring socialization mechanisms with the focus on interaction;  
reducing anxiety levels;  
further integration into society.

**S** **Types of games that can be used to work with schoolchildren with PTSD:**  
games with elements of: nature therapy (hikes in the forest/park/mountains, journeys); art therapy (drawing, modeling); music therapy (musical tales, associations, paintings, song writing); dance therapy; virtual reality (role-playing situations and VR games);  
story games (continue the story; tell a story with your participation; come up with a new story);  
games to develop a sense of control over the situation (strategies, simulations, quests);  
games to develop strategic thinking (puzzles, board games, lotto, puzzles);  
sports games (team games - relay races, games with objects);  
relaxing games with elements of yoga to reduce anxiety and overcome stress;  
**S** games for the development of emotional intelligence (motivation, empathy, self-awareness, self-regulation through oral description of one’s emotions (map of emotions, feelings, moods) and in writing (diary/journal of emotions, feelings, moods), as well as games with various figures/objects).

**C O N C L U S I O N**

**Conditions for implementing the potential of games in work with schoolchildren with PTSD:**  
resources (technological, financial, methodological components of support for game developers, exchange of experience at the regional and international levels);  
preparation/training of teachers, psychologists, social workers, volunteers, families, all interested parties;  
checking, correction and adaptation of games to the individual needs of schoolchildren with PTSD.

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## **STUDY OF THE IMPACT OF TEMPERAMENT ON THE ACADEMIC PERFORMANCE**

**STUDY OF THE IMPACT OF TEMPERAMENT ON THE ACADEMIC PERFORMANCE**

**TEMPERAMENT AS A PSYCHOLOGICAL FACTOR**  
Temperament is an essential psychological characteristic of an individual, influencing reaction speed, emotional stability, activity level, and other behavioral aspects. Studying temperament allows for a better understanding of how different temperament types affect students' learning processes and academic success.

**TYPES OF TEMPERAMENT:**  
Traditionally, four types of temperament are distinguished: sanguine, choleric, phlegmatic, and melancholic. Each type has unique traits that can influence learning motivation, attention span, information retention, and resilience to stress.

**IMPACT OF TEMPERAMENT ON ACADEMIC ACTIVITY:**  
Sanguine and choleric students often demonstrate high energy and initiative but may struggle with focus and stress management. Phlegmatic students tend to be more systematic and organized, albeit slower in their responses. Melancholic students may show depth in learning but could face emotional challenges in stressful situations.

**INDIVIDUALIZED LEARNING APPROACH:**  
Understanding temperament types enables educators to develop personalized learning strategies, improving student engagement and motivation. For instance, active learning methods may benefit sanguine students, while structured and systematic tasks might suit phlegmatic learners.

**RESEARCH FINDINGS:**  
Empirical studies indicate that students with different temperaments can show varying levels of academic performance depending on the learning environment and teaching methods applied. Tailoring teaching methods to match the temperament of the student can significantly enhance learning outcomes.

**SIGNIFICANCE FOR EDUCATION:**  
The study of the impact of temperament on academic performance has practical implications for educational system design. Recognizing individual psychological characteristics can help improve student academic success and the overall quality of education.

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*Scientific Publication*

## **Learning & Teaching: In the World after the War**

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