



Revista on line de Política e Gestão Educacional
Online Journal of Policy and Educational Management



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STRATEGIES FOR DEVELOPING UKRAINIAN- LANGUAGE EDUCATION IN HIGHER EDUCATION DURING WARTIME

*ESTRATÉGIAS PARA O DESENVOLVIMENTO DO ENSINO DA
LÍNGUA UCRANIANA NO ENSINO SUPERIOR DURANTE O
PERÍODO DE GUERRA*

*ESTRATEGIAS PARA EL DESARROLLO DE LA EDUCACIÓN
EN LENGUA UCRANIANA EN LA EDUCACIÓN SUPERIOR
DURANTE EL TIEMPO DE GUERRA*

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How to reference this paper:

Babenko, T., Vilchynska, T., Bachynska, H., Zhyglo, O., Nalyvajko, M. (2025). Strategies for developing Ukrainian-language education in higher education during wartime. *Revista on line de Política e Gestão Educacional*, 29(esp2), e025060. <https://doi.org/10.22633/rpge.v29iesp2.20702>

Submitted: 13/08/2025

Revisions required: 05/09/2025

Approved: 17/11/2025

Published: 25/11/2025

ABSTRACT: The study investigates the development of the educational environment in Ukrainian medical faculties during martial law, from the perspective of the national language policy. Based on a documentary analysis of three representative institutions, official data from 2022 to 2024 were examined. An increase in the use of the Ukrainian language was observed—programs taught in Ukrainian rose from 78.3% to 89.2%, the number of textbooks increased from 156 to 267, and faculty language proficiency reached 91.3%. However, regional disparities of 27.5 percentage points persist between the western and eastern regions, along with a negative correlation between language proficiency and the presence of internally displaced students (28.9%). The curriculum was adjusted to the military context, incorporating crisis communication and disaster medicine. The study proposes four regional models of linguistic organization and concludes that Ukrainian medical education demonstrates a high adaptive capacity, strengthening the national language and contributing to the consolidation of state language policy.

KEYWORDS: Medical education. Ukrainian-language educational environment. Martial law. Language policy. Regional education models.

RESUMO: O estudo investiga o desenvolvimento do ambiente educacional nas faculdades de medicina da Ucrânia durante a lei marcial, sob a ótica da política linguística nacional. Com base em análise documental de três instituições representativas, foram examinados dados oficiais de 2022 a 2024. Observou-se aumento do uso da língua ucraniana — programas em ucraniano passaram de 78,3% para 89,2%, manuais de 156 para 267 e proficiência docente para 91,3%. Persistem, contudo, disparidades regionais de 27,5 pontos percentuais entre oeste e leste e correlação negativa entre domínio linguístico e presença de estudantes deslocados (28,9%). O currículo foi ajustado ao contexto militar, incorporando comunicação de crise e medicina de catástrofe. O estudo propõe quatro modelos regionais de organização linguística e conclui que o ensino médico ucraniano revela alta capacidade adaptativa, fortalecendo a língua nacional e contribuindo para a consolidação da política linguística estatal.

PALAVRAS-CHAVE: Educação médica. Ambiente educativo em língua ucraniana. Lei marcial. Política linguística. Modelos regionais de educação.

RESUMEN: El estudio investiga el desarrollo del entorno educativo en las facultades de medicina de Ucrania durante la ley marcial, desde la perspectiva de la política lingüística nacional. A partir de un análisis documental de tres instituciones representativas, se examinaron datos oficiales de 2022 a 2024. Se observó un aumento en el uso del idioma ucraniano: los programas impartidos en ucraniano pasaron del 78,3% al 89,2%, los manuales de 156 a 267 y la competencia lingüística del profesorado alcanzó el 91,3%. Sin embargo, persisten disparidades regionales de 27,5 puntos porcentuales entre las regiones occidental y oriental, así como una correlación negativa entre el dominio lingüístico y la presencia de estudiantes desplazados internamente (28,9%). El plan de estudios fue adaptado al contexto militar, incorporando comunicación de crisis y medicina de catástrofes. El estudio propone cuatro modelos regionales de organización lingüística y concluye que la educación médica ucraniana demuestra una alta capacidad de adaptación, fortaleciendo el idioma nacional y contribuyendo a la consolidación de la política lingüística estatal.

PALABRAS CLAVE: Educación médica. Entorno educativo en lengua ucraniana. Ley marcial. Política lingüística. Modelos regionales de educación.

Article submitted to the similarity system



Editor: Prof. Dr. Sebastião de Souza Lemes

Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

INTRODUCTION

Modern society needs specialists who are confident in the norms of oral and written business communication, who can freely use linguistic tools in various communicative situations, and who are able to correctly and reasonably defend their position in accordance with the requirements of professional communication. This task, among others, is becoming increasingly relevant in the training of healthcare professionals, whose professional activities involve constant and intensive interaction with representatives of broad social groups. In this context, the medical education system needs to be updated, as it should not only provide knowledge of professional terminology and speech structures but also the ability to communicate effectively in order to improve the quality of the treatment process and strengthen trust in the medical industry as a whole.

The problem of creating an educational environment in higher medical educational institutions based on the Ukrainian language became particularly relevant with the adoption of the Law of Ukraine (2019a) “On Ensuring the Functioning of the Ukrainian Language as the State Language,” according to which Ukrainian was officially designated as the mandatory language of the educational process. This normative act established the legal basis for a systematic Ukrainian language policy in all areas of life at the municipal level, including the professional training of medical personnel.

The Russian Federation’s military aggression against Ukraine, which began on February 24, 2022, brought about fundamental changes in the functioning of the domestic education system. Education in Ukraine during martial law has never been so difficult, making it necessary to adapt the traditional educational process to new conditions while maintaining the quality of education and the national language policy (Institute of Educational Analytics, 2022). Higher medical educational institutions have become the centers of such changes, as the demand for qualified medical personnel has increased significantly in the context of war.

Language education in the medical field is an issue that has been studied by several researchers in the country. Astakhova (2024) studied the peculiarities of training medical personnel in emergency situations and noted that educational programs should be adapted to crisis conditions. However, such studies did not take into account the multidimensional impact of martial law on the creation of a Ukrainian-language educational environment in medical educational institutions.

The legal regulation of language policy in education is defined by the Law of Ukraine “On Higher Education” (2014), according to which the state language is established as the main language of instruction in vocational (vocational-technical) educational institutions (Law of Ukraine, 2019b). One of the main professional competencies of future medical workers is language competence, as established in the higher education standard for specialty 223 “Nurse” (Ministry of Education and Science of Ukraine, 2021). These documents provide the

regulatory and legal framework for studying the practice of introducing Ukrainian as the language of instruction in medical colleges.

The necessity of a language component in the professional training of medical workers is confirmed by international experience. Comparing the peculiarities of medical education in Ukraine under martial law with the experience of other countries, Bezkorovayna et al. (2023) note the particularities of maintaining the quality of education while simultaneously strengthening national linguistic identity. At the same time, there are no systematic studies that thoroughly examine the regional features of creating a Ukrainian-language educational environment in medical colleges of various types and organizational forms.

An analysis of the scientific literature has shown that there is a significant gap in studying the features of changes in the language policy of medical colleges under martial law. The literature mainly considers the general issue of education in wartime or focuses on theoretical concepts of language competence without taking into account the actual mechanisms of the functioning of the Ukrainian-language educational environment in specific educational institutions. In particular, issues such as language adaptation among internally displaced students, regional differences in the application of language policy, and the effectiveness of different models of professional training for language teachers in crisis conditions remain understudied.

These gaps create a need to study the current situation and dynamics of creating a Ukrainian-language academic environment in higher professional medical education institutions in the context of the peculiarities of war. The purpose of this study is to examine the peculiarities of creating a Ukrainian-language educational environment in Ukrainian medical colleges in the context of martial law, with an emphasis on a comparative analysis of various regional examples and institutional practices.

The research objectives are to answer the following questions: how are the regulatory framework and the process of introducing Ukrainian as the language of instruction in medical colleges organized; what are the regional characteristics of the language education environment, and how are they related to the concentration of internally displaced students; how is the training of medical college specialists in professional language and communication being transformed in the context of martial law; and what practical recommendations can help optimize the language policy of medical colleges in crisis situations.

LITERATURE REVIEW

The problem of creating a Ukrainian-language learning environment in medical educational institutions has become particularly relevant in the current situation, as Ukraine's education system is also operating under martial law. The theoretical basis of the study relies on

a thorough review of scientific publications that examine various aspects of language policy in the field of vocational education, the specifics of training medical personnel, and the peculiarities of the educational process in a crisis.

Based on the theoretical foundations of communicative competence formation in medical education, Kinash (2020) examines the process of training future doctors at the level of professional preparation. According to the author, communicative competence is a personal characteristic that combines knowledge of language norms, the ability to apply them in the workplace, and the capacity to communicate effectively with different groups of patients. Much attention is given to the development of professionally oriented language, mastery of medical terminology, and professional communication skills.

The current framework for developing communicative competence among medical students is discussed in the article by Linevych and Shevchenko (2023), who argue that communicative competence is one of the key components of professional training for future medical workers. The researchers emphasize the need to combine linguistic and professional aspects of training and highlight the importance of practical exercises in the process of developing professional communication skills.

A group of authors led by Selikhova et al. (2019) thoroughly analyzes the problems of modern higher medical education in Ukraine and identifies key challenges and opportunities for the development of the medical system. The article demonstrates the need to update methods of professional training for medical workers, taking into account European standards and national characteristics of the Ukrainian education system.

Gaidukevich et al. (2024) examine the peculiarities of forming professional competence in nursing students and focus on the importance of combining linguistic and cultural aspects of professional education. The authors substantiate the role of the humanities in shaping a well-rounded medical professional who is able to communicate and interact effectively with representatives of other cultures.

Vitrenko (2022) assesses the peculiarities of education under martial law, taking into account the specific organization of higher and pre-higher professional education in an emergency context. The researcher emphasizes the need to maintain both the quality of the educational process and the safety of its participants, as well as national educational priorities such as language policy.

Bezkorovayna et al. (2023) discuss the practical dimension of medical education in Ukraine during the war and explore the peculiarities of changes in the medical education system under wartime conditions. The authors highlight the unique Ukrainian experience of integrating the preservation of educational standards with national linguistic identity, which contrasts with international experience, where crisis conditions usually lead to a temporary weakening of language standards.

Current issues in training future medical professionals under martial law in Ukraine are examined in detail by Movlyanova et al. (2025), who analyze the prospects and innovations in medical education. The researchers note the need to develop new methods of professional training that take into account the working conditions of medical professionals during wartime and the need to acquire specialized skills.

A review of the scientific literature shows that a comprehensive approach to studying the Ukrainian-language environment in medical education has been developed, involving the integration of classical theoretical principles of language education with current issues of professional training under martial law. At the same time, the lack of research that thoroughly investigates the local characteristics of creating a language environment, the peculiarities of the adaptation of internally displaced students, and new methods of language training in crisis conditions justifies the relevance of this study.

RESEARCH METHODS

The study was conducted using a comparative-analytical approach, which enabled a thorough analysis of how the Ukrainian-language educational environment was organized in medical colleges in Ukraine under martial law. A documentary-analytical approach was applied, combining the study of the regulatory and legal framework, official statistics, and institutional practices of specific educational institutions.

This was carried out systematically, considering the Ukrainian-language educational environment as a system of interrelated factors: the regulatory and legal framework, institutional processes, human resources, and material and technical resources. The competency-based approach places the field of analysis under the influence of the development of linguistic and professional speech competencies of future medical workers within the framework of existing healthcare requirements. The comparative approach aims to contrast the experiences of different educational institutions in creating a Ukrainian-language educational environment, taking into account the characteristics of each region.

To ensure the representativeness of the results, three medical colleges (Table 1) located in different regions of Ukraine were selected as typical representatives of various linguistic environments and organizational structures.

The analysis of documentary material was conducted through an organized study of regulatory documents on language policy in education, reports on the state of education under martial law, statistics on the functioning of medical colleges, and internal materials of educational institutions. As part of the statistical analysis, descriptive statistics were applied to describe the main indicators, compare regional characteristics, analyze the dynamics of indicators

for 2022–2024, and graphically interpret the data. The official web resources of educational institutions, curricula, and educational programs, and reporting documentation on language policy were studied using content analysis.

Table 1
Characteristics of the surveyed institutions

Institution	Region	Type of institution	Contingent	Features
Vinnitsia Medical Specialized College named after Academician D. K. Zabolotnyi	Central Ukraine	Independent institution	~2000 students	Ukrainian-speaking environment, 100+ years of history
Chernivtsi Medical College of BSMU	Western Ukraine	Structural subdivision of the university	~1150 students	Multilingual environment, inclusive education
Kyiv City Medical Professional College	Capital region	Municipal institution	More than 20 thousand graduates	Mixed language environment, high percentage of IDPs

Note. Vinnitsia Medical Professional College (2025), Bukovinian State Medical University (2025), Institution of Professional Pre-Higher Education Kyiv City Medical Professional College (2025), Chernivtsi Medical Professional College (2025), Osvita.ua (2025).

The empirical basis of the study consists of official statistics from the Ukrainian education system for 2022–2024 (Official Educational Statistics, 2024), reports of the State Service for Education Quality of Ukraine (2025), and information resources of the Ministry of Education and Science of Ukraine (2025). The institutional analysis is based on data from the Unified State Register of Legal Entities and the official websites of the institutions under study, ensuring the reliability and relevance of information on the organizational features of medical colleges.

The use of official sources of information, triangulation of different types of documents, and cross-checking of data ensure internal validity. External validity is achieved through the rational selection of representatives of different regional models of medical education and the ability to generalize the results at the national level. Reliability is guaranteed by the use of standardized methods of textual analysis and statistical indicators obtained from official sources.

The analysis is based solely on data published in the public domain and on official documents, which eliminates ethical risks. The geographical limitation is related to military operations and does not include institutions located in temporarily occupied regions or evacuated institutions in the eastern territories. The time limitation is associated with the dynamic nature of educational processes during martial law, which requires the periodic revision of analyzed

data. The methodological limitation lies in the focus on the formal features of language policy without an in-depth examination of the qualitative aspects of the language environment, which may be addressed in future research through interviews and observations.

RESEARCH RESULTS

Current state of Ukrainian-language educational environment in medical colleges

The analysis of the regulatory framework demonstrates a comprehensive state approach to the formation of a Ukrainian-language educational environment in institutions of professional pre-higher medical education. The Order of the Ministry of Education and Science of Ukraine (2022) defined the specific features of the educational system's functioning in an emergency situation. The document provides for maintaining the quality of the educational process and ensuring the safety of its participants, as well as promoting the use of Ukrainian as the language of instruction.

The Strategy for the Development of Higher Education in Ukraine for 2022–2032 aims to strengthen the role of the Ukrainian language in the educational process of medical institutions, particularly in the training of competitive specialists for the national healthcare system (Cabinet of Ministers of Ukraine, 2022). This strategic document envisages the development of modern Ukrainian-language materials in medical education and the improvement of the language proficiency of teaching staff.

Monitoring of the quality assurance of higher education, conducted by the National Agency for Quality Assurance in Higher Education, shows positive changes in the creation of a Ukrainian-language educational environment in medical colleges. Table 2 compares the reports for 2022–2024, indicating systemic changes in institutional language policy (National Agency for Quality Assurance in Higher Education, 2023, 2024, 2025).

The data in the table demonstrate a stable positive dynamic in the introduction of the Ukrainian language into the educational process of medical colleges. Most notably, the increase of 25.3 percentage points in the share of institutions that have provided exclusively Ukrainian-language education for two or more years serves as an indicator of systemic change in the linguistic domain of medical education.

Table 3 presents a regional analysis illustrating the heterogeneity of the processes involved in creating an environment for teaching in the Ukrainian language. The central and western regions are characterized by a high level of Ukrainian language implementation in the educational process compared to the southern and partially eastern regions.

Table 2*Dynamics of language policy indicators in medical colleges of Ukraine (2022-2024)*

Indicator	2022	2023	2024	Trend
Share of Ukrainian-language curricula (%)	78,3	84,7	89,2	↑
Number of Ukrainian-language textbooks	156	203	267	↑
Share of teachers with high level of Ukrainian language proficiency (%)	82,1	87,4	91,3	↑
Institutions with fully Ukrainian-language education (%)	43,2	56,8	68,5	↑
IDP students in need of language adaptation (%)	23,4	31,7	28,9	↑↓

Note. Compiled according to the reports of the National Agency for Quality Assurance in Higher Education (2023, 2024, 2025).

Table 3*Indicadores regionais do uso da língua ucraniana nos colégios médicos (2024)*

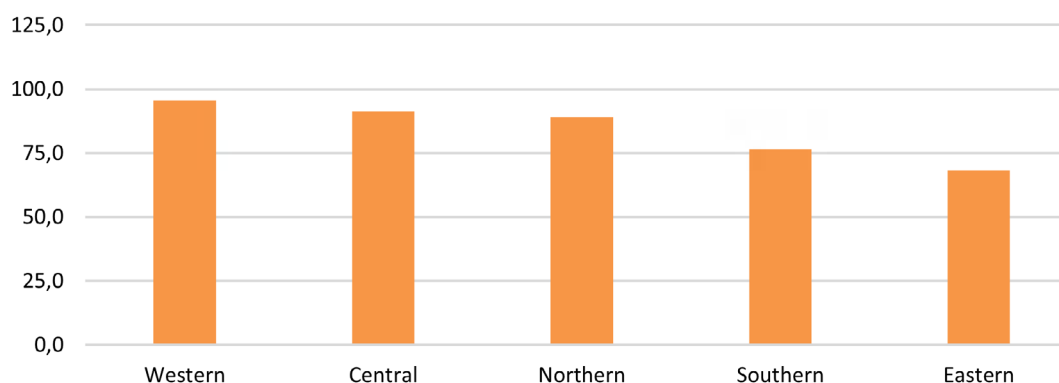
Region	Number of institutions	Ukrainian-language programs (%)	Level of language competence of teachers	IDP students (%)
Western	18	95,7	High	15,2
Central	22	91,3	High	42,8
Northern	12	89,1	Medium-high	38,5
Southern	8	76,4	Middle	52,3
Eastern (operating)	5	68,2	Average (functioning)	71,6

Note. Generalized from the Unified State Register of Legal Entities, Individual Entrepreneurs and Public Formations (2015) and NAQA reporting.

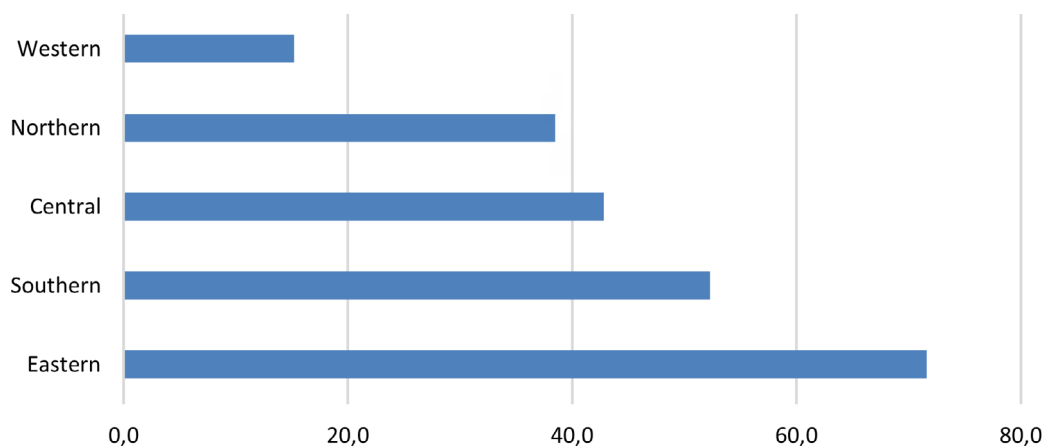
The regional distribution of programs in Ukrainian shows significant differences across various regions of the country (Figure 1). The western region is the most widespread, with the highest rates, and the language of instruction is consistently Ukrainian.

The data in Figure 1 show that the gap between the highest (western region) and lowest (eastern region) rates is 27.5 percentage points, indicating that specific measures need to be taken to address regional disparities in the language policy of medical institutions.

The distribution of regions where internally displaced students study demonstrates an inverse correlation (Figure 2)—the lowest rates of Ukrainian use are observed among IDP students.

Figure 1*Implementation of Ukrainian-language programs by region (2024)*

Note. Compiled according to the National Agency for Quality Assurance in Higher Education (2025) and the Unified State Register (2015).

Figure 2*Distribution of IDP students by region of study (2024)*

Note. Summarized according to reports of the National Agency for Quality Assurance in Higher Education (2024, 2025).

As the analysis in Figure 2 shows, internally displaced students (71.6%) are mostly concentrated in educational institutions in the eastern region, which creates additional challenges in ensuring effective language adaptation and requires the establishment of special support programs.

Although there are positive findings, the analysis indicates that several systemic problems persist in the development of the Ukrainian-language educational environment. The main challenge remains ensuring quality resources for teaching the Ukrainian language, especially in highly specialized medical disciplines. According to statistics from the National Agency for Quality Assurance in Higher Education (2025), a considerable number of medical colleges still lack teaching resources in Ukrainian (National Agency for Quality Assurance in Higher Education, 2025).

The key issue concerns language learning among internally displaced students. By 2024, 28.9% of IDP students required additional language support, placing an extra burden

on teaching staff and highlighting the need for specialized adaptive programs. This situation is most critical in eastern regional institutions, where 71.6% of such students are enrolled.

Analysis of teaching staff shows a shortage of Ukrainian language instructors with a professional focus. Few medical colleges have specially trained teachers capable of working with medical terminology in Ukrainian, which results in a general philological approach rather than a professionally oriented one.

According to Order No. 235 of the Ministry of Education and Science of Ukraine (Ministry of Education and Science of Ukraine, 2022), higher education institutions must ensure that Ukrainian is taught even under martial law. The Strategy for the Development of Higher Education for 2022–2032 envisages strengthening institutional mechanisms for language policy through the creation of internal regulations and supervision systems (Cabinet of Ministers of Ukraine, 2022).

As noted in the reports of the National Agency for Quality Assurance in Higher Education, a systematic approach to creating a Ukrainian-language environment is gradually being implemented in educational institutions. This includes the maturation of language policy, the organization of cultural and educational events, and the development of informational resources in Ukrainian (National Agency for Quality Assurance in Higher Education, 2023, 2024, 2025). However, the effectiveness of these mechanisms varies across institutions and requires additional systematic monitoring.

Particular attention should be paid to the problem of including a language component in the assessment of the professional competencies of future medical professionals. A systematic study of the current situation in the Ukrainian-language educational system of medical colleges will reveal both stable positive changes and the persistence of a certain number of structural problems that need to be systematically addressed at the level of state educational policy. The reports of the NAQA indicate the need to develop comprehensive assessment methods that include both language and professional skills.

A systematic study of the current situation of the Ukrainian language in the medical college education system will reveal both stable positive changes and the persistence of a certain number of structural problems that need to be systematically addressed at the level of state educational policy.

The impact of martial law on the Ukrainian-language educational environment of medical colleges

The full-scale military aggression of the Russian Federation against Ukraine has significantly changed the functioning of the medical education system, as it has become a challenge that higher education institutions had never faced before. The educational environment

in Ukraine under martial law conditions is characterized by the need not only to ensure the safety of the educational process but also its quality and language component (Institute of Educational Analytics, 2023).

The educational sector has acquired new forms of innovation and project activities under martial law while maintaining the Ukrainian-language nature of the educational process (Shkarlet, 2022). The issues of psychological support for participants in the educational process and the formation of a safe language environment for internally displaced students have become particularly relevant.

The transition to blended and distance learning formats has had a major impact on the functioning of the Ukrainian-language educational space. According to Dzekan et al. (2024), challenges in teaching during wartime are related not only to technical considerations but also to the need to maintain students' motivation to study under stress in Ukrainian. Table 4 shows in detail the dynamics of changes in the organization of the educational process in medical colleges in 2022–2024, which demonstrates gradual changes in full-time education, active growth of online resources in Ukrainian, and a decrease in the number of technical interruptions in the educational process, indicating the successful adaptation of the medical education system to the crisis.

Table 4

Changes in the organization of the educational process of medical colleges (2022-2024)

Indicator	Before the war (2021)	First year of war (2022)	Second year of war (2023)	Third year of war (2024)
Full-time education (%)	85,4	23,1	45,7	62,3
Distance learning (%)	8,2	61,5	38,9	24,1
Blended learning (%)	6,4	15,4	15,4	13,6
Ukrainian-language online resources	234	156	298	445
Technical interruptions of classes (per week)	0,3	12,7	8,4	5,2

Note. Compiled according to the data of collections on education under martial law (Education of Ukraine collections, 2022-2023).

The information in the table shows how full-time education is gradually being restored, along with a further increase in the number of Ukrainian-language online resources, which demonstrates the flexibility of the medical education system in a crisis situation.

Particular attention should be paid to the psychological aspects of training medical personnel in emergency situations. Astakhova (2024) emphasizes that the stressful situation of war affects the perception and assimilation of language material, so it is necessary to develop special pedagogical methods. This is especially true for displaced students, whose language change is accompanied by the traumatic experience of forced migration. The analysis

of the psychosocial factors that affected language learning during wartime is also detailed in Table 5, which shows that different methods are more effective in overcoming different types of challenges.

Table 5
Psychosocial factors influencing language learning in war conditions

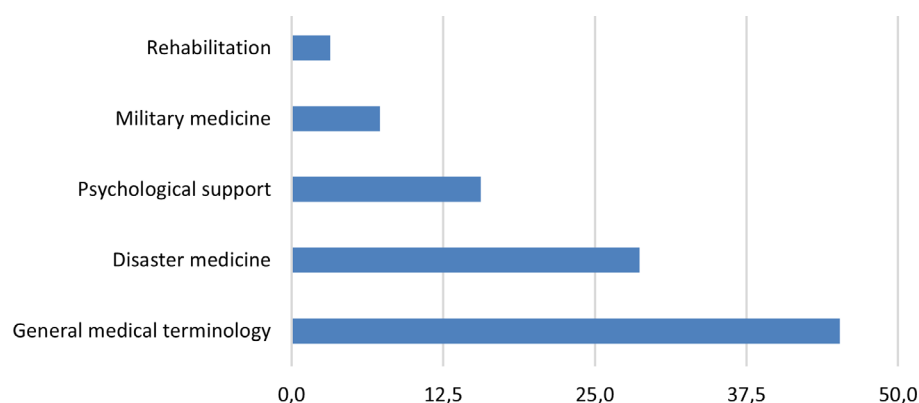
Factor	Influence on learning	Adaptation measures	Effectiveness (%)
Stressful state of students	Decreased concentration of attention	Psychological support	67,3
Interruption of classes due to air raid alarms	Fragmentation of the educational process	Flexible schedules	78,9
Language adaptation of IDPs	Difficulties in communication	Additional language courses	56,2
Change of the usual environment	Decrease in motivation	Cultural activities	73,1
Technical problems	Restrictions on access to resources	Mobile applications	84,6

Note. Authors (2025). Generalized from research on martial law conditions in education.

Martial law emphasized the need to develop special language skills related to disaster medicine, military medicine, and working with traumatized patients. This included expanding the vocabulary of medical students with specific terms in Ukrainian.

This analysis shows that different institutions adapted to the new requirements in different ways. The most successful programs were those that combined traditional medical terminology with new approaches to providing medical care under martial law. As shown in Figure 3, most language courses remain focused on general medical terminology, but considerable attention is paid to more specific areas related to martial law.

Figure 3
Priority areas of language training in wartime (2024)



Note. Education Collections (2023-2024). Analysis of medical college curricula.

The geographical location of medical colleges had a significant impact on how they adapted to the war situation. Particular problems arose in institutions located closer to border crossing points or areas with a large concentration of internally displaced persons.

The western regions, which have received a significant number of internally displaced students, have become centers of language integration. Meanwhile, educational institutions in the central and northern regions have developed new methods of distance learning, and the quality of the language education process has been maintained even in the face of frequent air raids.

Martial law has accelerated the introduction of digital technologies in language teaching at medical colleges. The creation of mobile applications using medical terms, the development of web-based courses with interactive forms, and the use of artificial intelligence to individualize the learning process have become integral parts of the modern educational process of learning Ukrainian.

Combined forms of learning, which integrate online classes (synchronous) with asynchronous tasks and training, have proven to be particularly effective. This has made it possible to continue learning the language even during technical disruptions caused by military operations.

The military aggression has contributed to strengthening international cooperation in medical education, opening up new opportunities for the development of Ukrainian-language content. Cooperation with European medical organizations has made it possible to create Ukrainian-language versions of global educational materials and develop academic mobility programs for medical college students.

The following problems of the Ukrainian-language educational environment during the war have not been overcome: psychological safety of the educational process, successful assimilation of internally displaced students into it, motivation to continue studying under martial law, and acquisition of specific language skills for work under martial law.

At the same time, the process of adapting to wartime conditions has become a prerequisite for modernizing the language education system, introducing innovations in the technological sphere, and developing international cooperation. Such achievements will have a positive impact on the quality of medical training in the postwar period in the long run.

The experience of martial law in the Ukrainian-language education of medical colleges demonstrates the great adaptability of the medical education system and its representatives, as well as their ability to preserve national identity even in the most difficult circumstances. Practical experience provides a solid foundation for further improvement of language policy in medical education in Ukraine.

Results of the analysis of educational programs of the studied institutions

A comparison of the official documents of the three medical colleges under study showed that there are different approaches to the organization of professional language and communication training. The most structured approach to the inclusion of the language aspect in professional training is observed at Vinnytsia Medical Professional College named after Academician D. K. Zabolotnyi (Vinnytsia Medical Professional College, 2025). As a part of the university, Chernivtsi Medical College of Bukovinian State Medical University uses the opportunities of the higher education institution to expand language training (Bukovinian State Medical University, 2025). Kyiv City Medical College pays special attention to adaptation programs for internally displaced students (Kyiv City Medical Professional College, 2025).

Professional language competence is formed through general language teaching combined with professionally oriented disciplines. Table 6 provides a comparative analysis of the structure of professional language training in the studied colleges, showing the distribution of teaching time among different elements of language education and allowing the identification of institutional features in the methods of forming language and communication skills.

Table 6

Structure of professional language training in the studied colleges (academic hours)

Component of language training	Vinnytsia College	Chernivtsi College	Kyiv College	Average value
Ukrainian language (general)	72	54	68	64,7
Medical terminology	108	126	96	110,0
Professional communication	54	72	84	70,0
Business broadcasting	36	45	42	41,0
Culture of speech	18	27	24	23,0
Practical trainings	42	36	54	44,0
In total	330	360	368	352,7

Note. Shkarlet (2022). Own analysis of the curricula of the surveyed institutions and materials on innovation activities.

We found that medical terminology occupies the largest share in the structure of language training at the three institutions, reflecting the professional nature of the training. Kyiv College devotes the largest number of hours to professional communication and practical training, which is related to the large share of IDP students.

The analysis of documents and web resources of the institutions showed that during the war, approaches to teaching professional language underwent significant changes. The

challenges of the educational process and the need to maintain a high level of motivation to learn require the use of new methods (Dzekan et al., 2024). The education of medical staff in emergency situations requires special attention to the development of communication skills in stressful contexts (Astakhova, 2024).

In our study, we found that the three colleges have implemented special modules on emergencies, dedicated to crisis communication and professional interaction. Other features of education in Ukraine under martial law include the creation of new terms and the adaptation of existing ones (Shkarlet, 2022). The results of the analysis show that Kyiv College is most concerned with the language adaptation of internally displaced persons, as the concentration of this group of students is high. Chernivtsi College is an object of international terminology development, as it is located near the border and cooperates with European partners.

The complete system of new elements of language training that have found their place in the curricula of the colleges studied under the influence of military realities is presented in Table 7, which shows the percentage of different areas of adaptive language training and their variability across institutions according to regional characteristics and student population.

Table 7

New components of language training in war conditions (%)

Component	Vinnitsia College	Chernivtsi College	Kyiv College	Average value
Crisis communication	15,0	12,0	25,0	17,3
Terminology of disaster medicine	20,0	18,0	22,0	20,0
Language adaptation of IDPs	5,0	8,0	30,0	14,3
Psychological support for patients	18,0	15,0	12,0	15,0
International medical terminology	12,0	20,0	8,0	13,3
Document flow in wartime conditions	10,0	8,0	15,0	11,0
Work with relatives of victims	20,0	19,0	18,0	19,0

Note. Authors (2025). Own analysis of the adaptation programs of the studied institutions.

Based on the analysis, a list of recommendations was developed to improve the situation of teaching the Ukrainian language in medical colleges. A differentiated approach to the regions is associated with the development of special programs to assist those areas where the level of implementation of the Ukrainian language in education is lower, particularly in the eastern and southern regions, where most internally displaced students are concentrated. Institutional proposals include the development of adaptive language programs with at least 120 hours of learning activities, the organization of regular refresher courses in medical terminology for teachers, and the creation of Ukrainian-language teaching materials that consider regional specifics.

Methodological suggestions include incorporating the language component into all professional disciplines, allocating at least 20% of class time to language learning, using more situational exercises and role-playing activities (which should occupy at least 40% of language training), as well as conducting practical training in real medical institutions with an emphasis on professional communication. Particular attention should be paid to teaching specialized language skills for working in emergency situations, such as crisis communication, disaster medicine, and psychological assistance to patients in traumatic conditions.

The results of the study helped us formulate four main models for organizing the Ukrainian-language educational environment in medical colleges. The Western model is characterized by a high level of Ukrainian language proficiency and a low percentage of internally displaced persons, which allows a focus on improving professional terminology and developing international cooperation. The main model illustrates an intermediate approach, characterized by a moderate level of Ukrainian language proficiency and a moderate percentage of internally displaced persons, and requires an in-depth study of language policy with an emphasis on adaptation programs.

The Kyiv model operates in a mixed-language environment with a high proportion of internally displaced students, making language adaptation programs and intensive Ukrainian language courses a priority. The southeastern paradigm is defined by the lowest level of Ukrainian language proficiency and the highest concentration of internally displaced people, requiring an intensive language support program with mandatory psychological assistance and additional resources to ensure the quality of education.

All models provide specific approaches to the organization of language policy, taking into account regional peculiarities, the demographic structure of the student population, and available opportunities. Effective implementation of these recommendations requires systemic support at the state level and the readiness of educational institutions to innovate in language policy.

DISCUSSION

The results of the study on the creation of a Ukrainian-language environment in the educational process of medical colleges under martial law demonstrate the multidimensional nature of the adaptation of the educational system to the crisis situation and the preservation of national priorities in language policy. The data obtained indicate not only quantitative changes in the practice of Ukrainian-language education but also qualitative changes in the orientation of the professional training of future medical professionals toward the language used.

The results of the study may be related to the foreign experience of organizing medical education during crises. Bezkorovayna et al. (2023), who analyze the peculiarities of medical education in Ukraine during the war, point to the originality of the Ukrainian experience in combining the preservation of the quality of education with language policy. This contrasts with the experience of other countries, where, in such crisis situations, the usual outcome was the temporary suspension of language requirements in order not to disrupt the functioning of the educational system.

The identified need to acquire specially oriented language skills for work in emergency situations opens up a new perspective on the theory and practice of professional language education. Our analysis shows that traditional approaches to the formation of language and communication competence, presented in the works of Kinash (2020) on the training of future doctors, need to be significantly strengthened by special elements of crisis communication. This is not only a matter of terminology but also of the psycholinguistic features of communication under stress, which have not been previously discussed at the systemic level in relation to medical education.

Of particular importance are the findings regarding the language adaptation of internally displaced students, 28.9% of whom need additional language support. These data are similar to the conclusions of Linevych and Shevchenko (2023) regarding the purpose of communicative competence in the professional training of healthcare professionals, but expand the horizons of this issue by applying the socio-cultural aspect of adaptation. The theory of inclusive education in professional training faces new challenges due to the correlation between the regional location of the institution and the concentration of IDPs.

The documentary and analytical method of studying the language environment proved to be fruitful in situations where conventional empirical research methods were complicated by the military situation. At the same time, it imposed certain limitations on the level of analysis of the qualitative characteristics of the language environment, which should be taken into account in future studies. The developed typology of regional models of the language environment can be used to conduct further research using mixed methodological strategies.

The recommendations developed for a differentiated approach to language policy are of direct practical importance for maximizing the efficiency of medical colleges. The most important of these is the recommendation to develop special adaptation programs for internally displaced students, taking into account specific data on their concentration in different regions. This is in line with the European experience of integrating migrants into professional education, but adapted to the peculiarities of internal migration and language features of Ukraine.

The article contributes to the theory of language policy in vocational education, enriching knowledge about the adaptive mechanisms of the language environment in times of crisis. The observed regularities can form the basis for building a theoretical model of a crisis-resistant language environment in vocational education, which will have interdisciplinary implications for pedagogy, sociolinguistics, and educational management theory.

The lack of opportunity to study the postwar period due to the geographical limitations of the study related to military operations opens up additional opportunities for expanding the analytical coverage to the postwar era. Of particular interest will be long-term studies of the dynamics of the language environment in the context of the reintegration of the temporarily occupied territories. The method of documentary analysis has methodological limitations that can be overcome by applying mixed methods, such as in-depth interviews and ethnographic observation.

The prospects for future research are promising, as they include studying the long-term effects of military experience on the language consciousness of future medical professionals, assessing how international cooperation can contribute to the evolution of Ukrainian medical terminology, and investigating the effectiveness of different models of language adaptation in relation to internally displaced students.

The conclusions of the article prove that the creation of a Ukrainian-language educational environment in medical colleges under martial law is a multifactorial process that requires a systematic approach and differentiated strategies. The data obtained allow for the further development of the theory and practice of language education in the professional environment and make it possible to optimize language policy in medical education at both the national and institutional levels.

CONCLUSION

The study of the creation of a Ukrainian-language educational environment in medical higher education institutions under martial law has revealed several key trends and patterns according to which the educational system adapts to the crisis and the priorities of the state language are preserved.

There has been a general positive trend toward the introduction of Ukrainian-language instruction in medical colleges: in 2022, the share of Ukrainian curricula was 78.3%; in 2024, it reached 89.2%, which indicates the high adaptability of medical education to military conditions. At the same time, the number of textbooks in Ukrainian has increased dramatically (from 156 to 267 units), and the level of language competence among the teaching staff has risen to 91.3%.

There are several regional differences in the development of the language educational environment: the gap between the western (95.7%) and eastern regions (68.2%) is 27.5 percentage points. The degree of Ukrainian language proficiency in a given territory is inversely related to the density of internally displaced students, which further worsens the situation in institutions with lower baseline indicators of Ukrainian language use.

It has been found that 28.9% of displaced students in the internal environment need special language adaptation, and the highest level of such students was observed in institutions operating in the eastern region (71.6%). This emphasizes the need to develop differentiated language policy strategies, taking into account the regional peculiarities and demographic characteristics of the student body.

The change in the content of professional language training under the influence of military realities has been confirmed: elements of crisis communication (17.3%), vocabulary on disaster medicine (20.0%), and work with traumatized patients (19.0%) were introduced into the program. This demonstrates the adaptation of the educational process to new professional needs and the expansion of the scope of language skills among future doctors.

Four different models for organizing the Ukrainian-language educational environment (western, central, metropolitan, and southeastern) have been developed, each requiring specific language policy methods that consider the concentration of IDPs, the level of Ukrainian language proficiency, and available resources.

The practical benefit of the results lies in the fact that the data obtained can be used to optimize the language policy of medical higher education institutions both at the national level and at the level of individual institutions. Recommendations based on a differentiated approach to regional models can help improve the effectiveness of language education and the quality of adaptation of internally displaced students.

The geographical limitations of the study are mainly due to the impossibility of involving institutions from temporarily occupied territories as a result of military operations, as well as the focus on formal markers of language policy without an in-depth analysis of the qualitative characteristics of the language environment.

Prospects for future research include a long-term study of the effectiveness of different models of language adaptation for IDP students, an investigation of the long-term effects of war experience on the language consciousness of future medical professionals, and

an examination of how international cooperation may influence the creation of Ukrainian medical terminology. Qualitative research based on in-depth interviews and ethnographic observations is still needed to gain deeper knowledge of how the language environment functions in medical education.

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CRediT Author Statement

Acknowledgements: We would like to thank Yuri Kondratyuk National University, Poltava Polytechnic (Ukraine).

Funding: None.

Conflicts of interest: None.

Ethical approval: Ethical approval was not required.

Data and material availability: The data and materials used in this study are not available.

Authors' contributions: All authors contributed equally to the development of the article.

Processing and editing: Editora Ibero-Americana de Educação

Proofreading, formatting, standardization and translation

