Special Issue: Socio-educational, political, and economic relations in Ukraine

Individualization of professional training of future specialists in philological specialties

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Abstract The article deals with the ways of personalizing the methodological training of future linguists. The nature of the subject's experience of methodological activity is revealed. The importance of designing a personal trajectory of methodological formation and self-development for a student is confirmed. The necessity of creating a personalized and structured learning environment when teaching in higher education institutions is emphasized. Teaching methods that contribute to the formation of an individual methodological style for future teachers are identified. As a result, the creation of a personalized and systematic learning system is of particular importance in the systematic training of future linguists in higher education institutions. The environment that designs personal trajectories of students' methodological formation and self-development includes considering their characteristics and subject experience, developing appropriate learning strategies, and developing their methodological style.

Keywords: methodological training, individualization, individual method style, individual trajectory of method

1. Introduction

The new Ukrainian school needs a competent and creative teacher. It is worth preparing to implement the priorities of modern education to develop an integrated, well-rounded personality who is a critical thinker, patriot, and innovator. One of the key opportunities is to develop a school graduate's environmental and technical competence. That is why today special attention is paid to the study of natural sciences.

A modern educator should structure the learning process and use such forms, methods, tools, and techniques to ensure that students not only master the curriculum material at a high level but also apply this knowledge and skills in practical activities, form hypotheses, conduct experiments and analyze the results (Godovanyuk 2010). To ensure high-quality science education for schoolchildren, it is essential to improve the training of future language teachers in HEIs. This applies, in particular, to the methodological training of students.

It is impossible to become a true specialist in the field of linguistics without taking into account the individual preferences and abilities of students, their interests, and their experience. Given this, the methodological training of future linguists is of great importance.

The research aims to reveal an individualized approach to the systematic training of future teachers in HEIs.
Research objectives:
– to clarify the essence of methodological and individualized training of future teachers,
– to reveal the importance of designing individual trajectories of methodological formation and self-development of students,
– to analyze the consequences of focusing on an individualized approach.

2. Materials and Methods

The study of the issue of the formation of the level of components of future linguistic students' readiness, and assessment of high school students' communicative competence using the methods of testing scientific and psycho-pedagogical literature of HEIs makes it possible to analyze the current state of this issue.

In the course of our work, the following tasks were solved: determining the presence of positive motivation to use test methods in the process of assessing high school students' communicative competence, determining the availability of the necessary knowledge on the use of test methods in learning and teaching academic subjects, as well as determining professional skills.

The development and application in the future of methods for identifying the readiness of future linguistic teachers will allow for assessing the communicative competence of high school students using test methods.

The study was conducted at the full-time department of the Institute of Language and Journalism. The study involved 46 students who are obtaining a bachelor's degree in the fourth year of study in the field of knowledge 01 Education; specialty 014 Secondary Education; subject specialization 01 Ukrainian Language and Literature; additional subject specialization 02 Language and Literature (English). To accomplish the tasks, pedagogical research methods such as observation, questionnaires, and conversation were used.

3. Results

Structured learning as an integral part of a future teacher's professional training is the purposeful development of a set of methodological skills.

The competence of future specialists in the context of solving methodological problems of school education is a system of methodology principles that are the result of scientific research. The education of future linguists in modern higher education institutions involves the introduction of science, professionalism, complexity, coherence, the connection of theory with practice, consciousness and activity, systematicity and consistency, strengthening of creative orientation, variability, innovation, and subjectivity. In particular, the principle of subjectivity contributes to the development of the professional potential of each student, the formation of the subjective experience of the methodological activity, and the development of individual methodological styles. The implementation of this principle contributes to the individualization of methods of training future teachers in the field of linguistics (Yevtukh and Yashnyk 2015).

Personalization is a very important aspect of both school education and professional training of students in higher education institutions. According to Ya. Chernonkov, individualization of professional training is a pedagogical principle that involves the creation of an interactive system between participants in the educational process that considers and uses the individual characteristics of the student, determines his or her needs and abilities, and promotes the development of his or her professional skills and competencies.

Given the above, in the proposed study we consider the individualization of the methodological training of future biology teachers as the organization of methodological training of students. In it, the content, methods and techniques, forms, means, teaching methods, and methods of designing educational activities will consider the individual abilities of students, their interests and inclinations, and the sub-target experience of structured activities. Individualization of students' methodological training is aimed at forming an individualized methodological style (Viktorov 2005).

In HEIs, the systematic training of future teachers is carried out in stages:

– the first stage (preparatory course) – studying the subject "Introduction to the profession", familiarization and repetition of the content of the school curriculum subjects in the course of studying linguistics, mastering pedagogy, and psychology;

– the second stage (general methodological) – studying the subject "Methods of teaching the Ukrainian language";

– third stage – the study of special courses and subjects of choice in the methodological direction;

– the fourth stage (practice-oriented) is to directly apply the acquired structured knowledge and skills in the educational process in pedagogical practice;

– the fifth stage (research) – conducting qualification work on Ukrainian teaching methods, participation in scientific conferences and seminars, and work in the scientific environment;

– sixth stage (creative) – independent methodological activity aimed at forming a personal methodological style (New Course: Reforms in Ukraine 2010–2015 (2010).

Within the framework of the proposed study, the methodological developments of the future biology teacher and the phased construction of self-development trajectories are relevant:

1) formation of a system of methodological knowledge (conceptual and substantive level);
2) a system of skills (practical and activity level);
3) to form a systematic experience of creative activity (worldview level);
4) to form a systematic activity of self-improvement of personal value attitude (conceptual level) (Dichek, N. P., 2013).

Each person's experience is unique. Such terms as "lived experience", "personal experience", "disciplinary experience" and others are used in scientific sources. In the proposed study, we will consider the subjective experience of the methodological activity of the future philologist, who consciously assimilates and checks in the process of professional-pedagogical and quasi-professional activity as an organized set of knowledge, ways of action, skills, and abilities.

The analysis of pedagogical practice in higher education institutions shows that students gain only minimal experience in teaching even while studying at such institutions. However, this experience is only possible if you get close to professional events and immerse yourself in them.

It is essential to develop a student's experience of methodological activity through the pedagogical practice of a general education institution, during which the future teacher acts as a teacher and carries out various types of pedagogical activities. The development of a personal methodological style is especially important in methodological training. According to scientists, a set of favorite techniques, a way of thinking, a way of communicating, a way of making demands - all these characteristics, inseparable from a set of views and beliefs, constitute an individual style of pedagogical activity (New Ukrainian school).

The style of pedagogical activity depends on personal qualities, general culture, professional competence, pedagogical intuition, etc. The way a person works makes it possible to realize individual capabilities. People with different individual-typical features of the nervous system, abilities, temperament, and character have the opportunity to use their characteristics to achieve high efficiency in a particular activity.

Learning activities take place in interaction with specific situations, and the individual style of a teacher's activity depends on the individual psychological characteristics of students, the characteristics of the student group, how the teacher communicates with students, the teacher's abilities, and professional competence. Owing to an individual approach, learning activities will be effective and will bring satisfaction from the understanding of the subject material. Therefore, a person's style of work reflects his or her professional maturity, competence, skill level, and creativity.

We believe that personal methodological style is a set of personal and professional qualities of a person that characterize his/her methodological activity (means, techniques, approaches, and methods of activity) in the implementation of the educational process, contributing to the achievement of the highest educational efficiency. The personal methodological style of Ukrainian language teachers is characterized by an individualized approach to methodological activities, according to their professional skills and teaching experience (Honcharenko 2007).

For instance, one student was very good at organizing group work and using interactive teaching methods, such as discussions, etc. Another student demonstrated extraordinary oratorical ability and was able to tell, explain and persuade beautifully. And yet another skillfully managed students' independent work in class, motivating them to create projects and conduct research. A genuine teacher should have a full range of teaching methods, forms, and techniques, but each teacher achieves results differently, depending on their abilities.

Using the results of a survey conducted among students of the Faculty of Philology, we were able to find out the opinion of future philology teachers about innovative technologies in the educational process.

Compliance with pedagogical conditions is possible if the content of lectures, practical classes, and independent and laboratory classes is filled with information that will promote the development of future philology teachers' motivation and demonstrate effectiveness.

In developing the skills of future teachers of philological disciplines, teachers, in addition to traditional methods, use innovative methods, such as test control, the method of modeling professional situations, as well as various means, including multimedia, test platforms, master classes, and analytical reports.

Summarizing the content of the main criteria for diagnosing the motivational, content, operational, activity, and evaluation components of readiness, we can distinguish initial, sufficient, and high levels of future philology teachers' readiness to teach students.

The high level of preparedness found in 24 students implies that students have developed the skills to perform the mandatory sequential operations of the assessment process and are aware of the importance of monitoring and evaluating learning achievements. Future teachers of philology who demonstrate a high level of readiness have a thorough knowledge of the system of assessment criteria, successfully select educational material, and can accurately and promptly analyze the information received to adjust the methodology of teaching the subject. These skills help students to choose the right types, forms, and methods of work in atypical pedagogical situations. If future philology teachers are ready, they will not have any difficulties in implementing assessment activities at the level of competence development.

Students with a sufficient level of readiness, of whom there are 22, do not always navigate the sequence of operations. Besides, future teachers of philology sometimes do not fully understand the essence of the assessment process and have unstable internal motivation to use such technologies in assessing high school students' communicative competence. Such students need external help when performing tasks and do not always analyze the information quickly. However, they demonstrate a high level of communicative competence when understanding the assessment criteria and adapt well to atypical teaching situations.

4. Discussion

The article does not exhaust all aspects of developing future philology teachers' readiness for innovative technologies. We see prospects for further research in the development of methods for characterizing the levels of formation of the components of future philology teachers' readiness for innovative technologies.

There are prospects for further research in this direction. The individualization of methodological training of students will help the new Ukrainian school to form competent biology teachers who can think critically, implement modern technologies, and realize their creative potential and the author's methodological view in the educational process of educational institutions.

5. Conclusions

Thus, it was determined that innovative technologies have a positive impact on the education of future philology students. The majority of the respondents responded positively to studying at HEIs. These results indicate that teachers use various methods of innovative technologies to motivate students to improve their learning.

Therefore, the creation of a personalized and systematic learning system is of particular importance in the systematic training of future philology teachers in higher education institutions. The environment that designs individual trajectories of students' methodological formation and self-development includes consideration of their characteristics and subject experience, development of appropriate learning strategies, and development of their methodological style.

Ethical considerations

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Conflict of Interest

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Ukrainian education system: war challenges
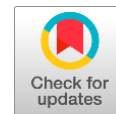
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Abstract The challenges posed by war have had a significant impact on the Ukrainian education system. This article aims to provide an overview of the current stage of training specialists in higher education institutions, highlighting the development trends of specific professions. Attention is drawn to the crucial role of teachers in fostering educational competencies in students, thereby enhancing their competitiveness in the job market, particularly in the context of war. The article analyses the key components of the educational process, emphasizing the need for teachers to boost student motivation for learning. In the present circumstances, Ukraine requires professionals who can effectively adapt to changing situations, discern between true and false information, and maintain resilience in the face of stress. These specialists should not only possess knowledge acquired during their university studies but also demonstrate proficiency in applying relevant skills and competences in their professional endeavors. Notably, effective communication assumes paramount importance during times of war, serving as a powerful tool against the enemy. Consequently, integrating a communicative component into classes is of utmost significance.

Keywords: education, adaptation, Russian-Ukrainian war, manipulation, online platforms

1. Introduction

On February 24, 2022, as a result of the invasion of the Russian Federation into the territory of Ukraine, the educational sphere was under a huge threat. Millions of citizens were deprived of the right to education in safe conditions. The international community is putting much effort into developing mechanisms to protect education in emergency situations and military operations. Developments on this issue today are valuable for Ukraine, which actualizes the analysis of effective international documents and practices.

Higher education in today's war and postwar society has an extremely important mission: to form a responsible and self-sufficient individual who possesses critical thinking and knows how to resist planted myths and objectively perceive and analyse information. A thorough study of the didactic possibilities of using information networks (search, processing, transmission and storage of information) in educational and educational processes in institutions of higher education is an urgent and important task.

In the conditions of the war, globalization and modernization had an even more intense impact on the dynamic development of modern society. This especially applies to young people who are active users of the Internet, in particular social networks. Students actively search for information, communicate, and widely use educational Internet resources. However, it is in information networks that young people often come across unreliable facts and falsified information.

This is especially noticeable in wartime, as manipulators create doubts and provoke conflicts. They are trying to create an atmosphere of negative attitude towards cultural heritage and encourage cooperation with the enemy. Youth is the main target of the enemy's attention, which tries to fill the gaps in the knowledge of young people with false, falsified information. The teacher's task is to identify these gaps and fill them with true information to encourage the student to think and analyse information.

1.1. Aim and tasks

The aim of the article is to summarize the experience of training Bachelors and Master in war conditions and the influence of public educational organizations at the current stage to describe the trends in the development of the educational process.

The main research tasks are to describe the priority areas of lecture work to obtain quality knowledge, to correct new educational plans and programs, to understand the positive and negative aspects of innovative educational technologies and to conduct a survey among students to identify their needs.

2. Research methods

The following methods have been used to solve certain tasks in research: descriptive, comparative-historical, and structural with the use of the method of component analysis, elements of statistical analysis, and the method of associative experiment.

3. Discussion

In the XXI century, information and communication technologies began to develop intensively in Ukraine, which helped to continue the educational process in the conditions of war. Currently, the level of requirements for professional training of specialists has become higher, particularly for programmers, doctors, youth workers, architects, psychologists, document experts, etc. Every day, Ukraine suffers great losses, so a personnel crisis is brewing in many areas.

The digital transformation of education and pedagogy in times of military aggression are actions devoted, in essence, to the distance learning format but in extremely pragmatic and operational aspects. The effectiveness of a successfully selected distance platform by the educator affects the quality of education from kindergarten to higher education. In this context, the educator must address a number of organizational issues, students' capabilities and martial law conditions (Bakhmat 2022; Ščerbinskis 2020).

In the era of informatization, there is a need for specialists who not only know how to work with various types of documentation but also orient themselves in the information, management, and marketing spheres, which has become especially relevant now (Lytvynska 2019). Modern specialists in various fields must quickly adapt to new needs, orient themselves to the requirements of the labor market and constantly improve their skills and abilities to remain competitive, taking into account modern realities. We would like to pay special attention to the training of specialists.

The development of professional training in institutions of higher education is a multifaceted problem. Among the leading Ukrainian researchers who study the specifics of education, in particular in the conditions of war, we can mention S.O. Terepyshchy, M. Horikhovskyi, S. Donchenko, etc. A. Peleshchyshyn, N. Vovk 2017 A. Solyanyk 2017, I. Dovzhuk 2018, S. Lytvynska 2017 and 2019, N. Masi 2017 and others write about increasing the requirements for the training of specialists and the use of modern information technologies in the process of their training. Informatization of society increases the need for specialists in the intellectual sphere, which is why the continuous functioning of educational institutions is an extremely important task for modern Ukraine.

The Law of Ukraine "On Higher Education" states that the main task of higher education institutions is the formation of students' competencies in the learning process, namely, "competence is the ability of a person to successfully socialize, study, and conduct professional activities, which arises on the basis of a dynamic combination of knowledge, skills, skills, ways of thinking, views, values, other personal qualities" (Zakon 2014). Information has become an important element of modernity, and there is a need for such professionals who know how to work with it professionally with the help of new Internet technologies, banks and databases. Therefore, during training, students should distance themselves from mechanical memorization and move to active mastery of the competence system. In the educational process, it is important to introduce innovative technologies that are based on the practical results of the informatization of society. It is necessary to teach students working with information on modern media with cloud technologies. They should want to implement the educational experience of advanced countries in Europe, America, and Asia. Therefore, one of the main places in training curricula is occupied by the block of computer disciplines. This significantly increases the level of training of Ukrainian graduates of various specialties.

In universities, graduates are provided with general specialist training. When a young specialist gets to work in a certain institution, organization or enterprise, his work may have certain features depending on the activity profile. A young specialist must immediately demonstrate his knowledge, abilities and skills. Express interest and demonstrate a desire for additional training at the workplace if there is such an opportunity (special training systems, trainings for improving the qualifications of employees).

Possession of professional competences by a young specialist will allow him to independently master certain skills and abilities. You can determine about such requirements of employers after analysing vacancies on websites. This will allow you to prepare for the possible requirements of employers during your studies and master them even before applying for a job.

Let us consider the specialty of document scientists as an example. After analysing the vacancies announced on the websites "Work.ua" and "Rabota.ua" for which a document scientist can apply (for example, a document scientist, a document management specialist, a clerk, a librarian, an archivist, an information analyst), a list of competencies that an applicant must possess for position. To work as a document management specialist or clerk, you need to know: principles of traditional and electronic record keeping; MS Office package; different types of documents, to be able to create them; working with a PC; clerical terminology; business correspondence; features of telephone communication; the specifics of working with a large amount of information; work with 1C and CRM. As we can see, such requirements have a technical direction. If necessary, applicants for various positions can deepen their knowledge, abilities, and skills on their own or master them at the workplace.

The opportunity to obtain a job in a specialty in a timely manner after taking a diploma is very important for every young specialist. He can practically apply the theoretical knowledge acquired at the educational institution and acquire new ones, improving his skills. This forms his professionalism and promotes career growth. The versatility of the profession, knowledge and work skills enable graduates to find employment in various institutions, organizations and enterprises, as well as to hold various positions.

In its development, Ukraine as a state is oriented on the experience of the world's leading countries. This applies to politics, science, education, economy, industry, etc. Currently, the National Aviation University has established cooperation with educational and scientific institutions. Conditions have been created for effective cooperation, exchange of scientific achievements and practical developments, development of joint projects, and development of successful partnership relations. Using Internet technologies, platforms, programs, social networks, scientists and specialists from different countries hold conferences, seminars, meetings, meetings, etc. Partnership cooperation between countries is promising for the development of the professional abilities of a young specialist and provides experience and practical skills (International academic mobility 2020). Students and Ph.D.s of National Aviation University actively participate in the international exchange programs Erasmus+ and Mevlana. Even with the beginning of a full-scale war, representatives of our university's present scientific achievements on the international stage.

Programs for international internships and exchanges of students and lecturers have become effective. To expand the boundaries of scientific and educational communication, it is necessary to harmonize domestic standards with international and Western European standards, to harmonize national education systems, and to regulate discrepancies in educational programs and qualifications obtained by graduates. Currently, leading institutions of higher education already issue international diplomas to their graduates. This is proof of the improvement of the level of education, the competitiveness of Ukrainian specialists on the world labor market, and the opportunity to continue studying at the most powerful universities in the world. Of course, this is facilitated by the path to European integration chosen by Ukraine. Therefore, it is important to finalize the Qualifications Framework of Ukraine in accordance with the experience of the European Qualifications Framework.

Global civilizational changes, the unpredictability and expansion of the labor market, large-scale population migration, and the development of innovative technologies constantly change the requirements for the professional training of graduates of higher education institutions, increase the scope of their knowledge and expand their competencies. Currently, the knowledge needed by professional employees is constantly changing at a crazy speed. In addition, there is an ultrafast aging of information. Therefore, it is irrelevant to force students to simply accumulate, memorize certain knowledge, develop subject skills and abilities. It is important that the organizer of the educational process implements such training methods, thanks to which students receive certain professional experience, confidence in their abilities, and readiness to take responsibility.

A specialist who knows how to combine theoretical knowledge and practical application will always be competitive and competitive not only on the Ukrainian labor market but also on the international one, since he is fluent in his specialty, oriented in related fields of activity, prepared for training, improving his qualifications, professionally mobile, etc. The modern modernization of higher education in Ukraine is aimed at this, shifting the emphasis from the learning process to its content and result, ensuring a competency-based approach and finding mechanisms for its implementation.

To prepare a competent specialist, a flexible educational system is implemented in higher education institutions, the forms of interaction between teachers and students change from passive to active, and the latest teaching methods and multimedia technologies are widely used.

In the conditions of war, most universities of Ukraine work online. The National Aviation University (Kyiv, Ukraine) uses the Google Meet platform for training. To improve the educational process for students, a survey was conducted. The priorities of students could change in the conditions of the war.

Students from various faculties of National Aviation University participated in the query: Aerospace Faculty (ASF), Faculty of Air Navigation, Electronics and Telecommunications (FAET), Faculty of Ground Structures and Airfields (FGSA), Faculty of Environmental Safety, Engineering and Technologies (FESET), Faculty of Economics and Business Administration (FEBA), Faculty of Cybersecurity, Computer and Software Engineering (FCCSE), Faculty of Linguistics and Social Communications (FLSC), Faculty of Transport, Management and Logistic (FTML), and Faculty of Law (FL).

The total number of respondents was 520 students of the 1st and 2nd courses of study, students studying under the conditions of Russia's invasion of Ukraine after February 24, 2022.

Distribution of respondents by faculty.

It was important for the researchers to determine the opinion of the students regarding the focus of the discipline on the specialty of the students of education. Survey statistics are shown in Figure 1.

Our course covers several important blocks, so we asked students which material was the most important to them. As a result, we obtained the following statistics.

The syllabus of the discipline "Business Ukrainian Language" is oriented in such a way as to cover all forms of classes: lectures, practical, consultations, independent work, webinars, discussions, roundtables, tests, etc. In previous articles, we had similar results; the study revealed an average level of inclusion of teacher training components for blended learning (50.5%) and training components for ICT use in student learning (48.4%). A significant level of teachers' professional development of

ICT skills was also revealed (44% take courses). As a consequence, an average level of unpreparedness of teachers for both blended learning (28.9% are not ready, 36.6% are little prepared) and the use of ICT in practice (30.3% are almost not ready, 34.25 are little prepared) was revealed 11.
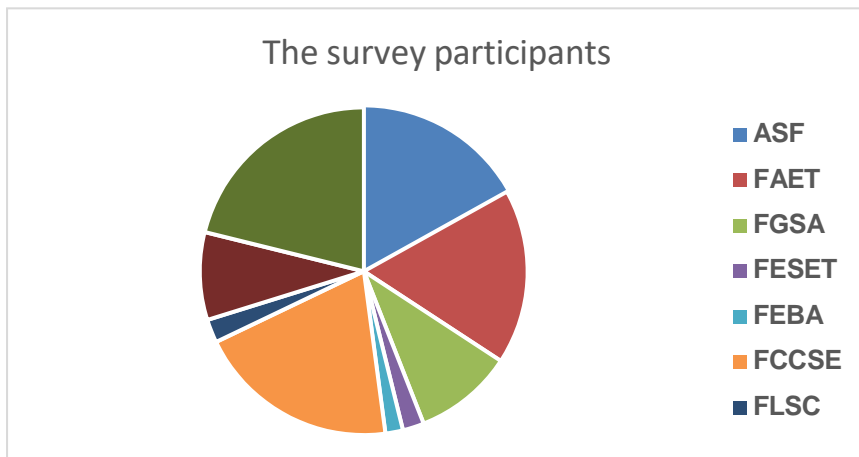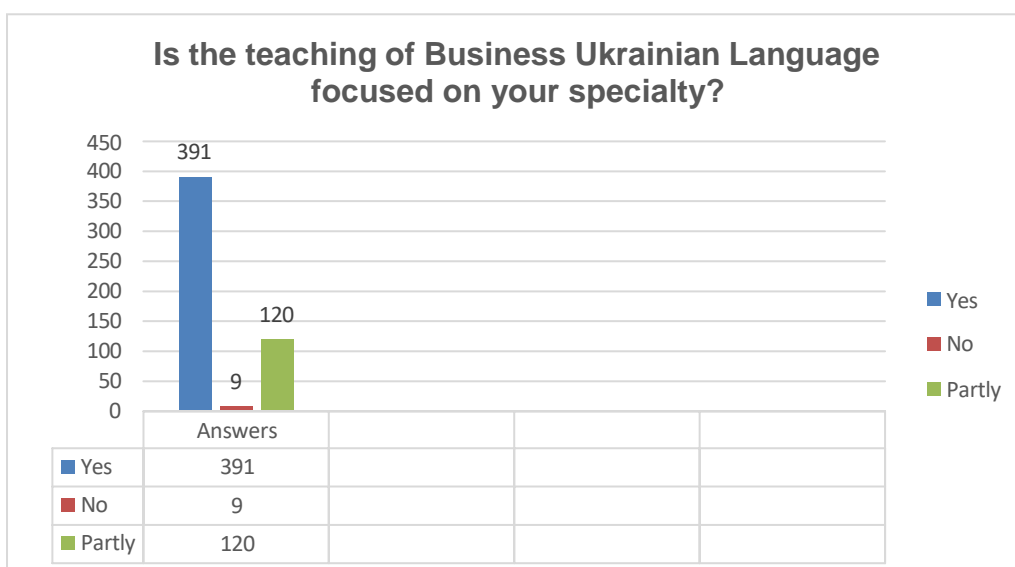

Figure 1 Distribution of participants by faculty.

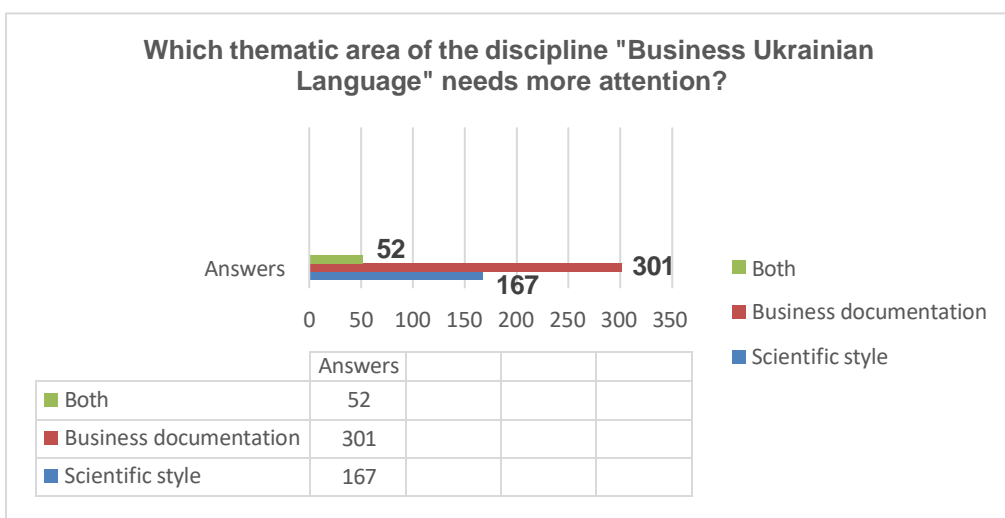**Figure 2** Focusing on the specialty.

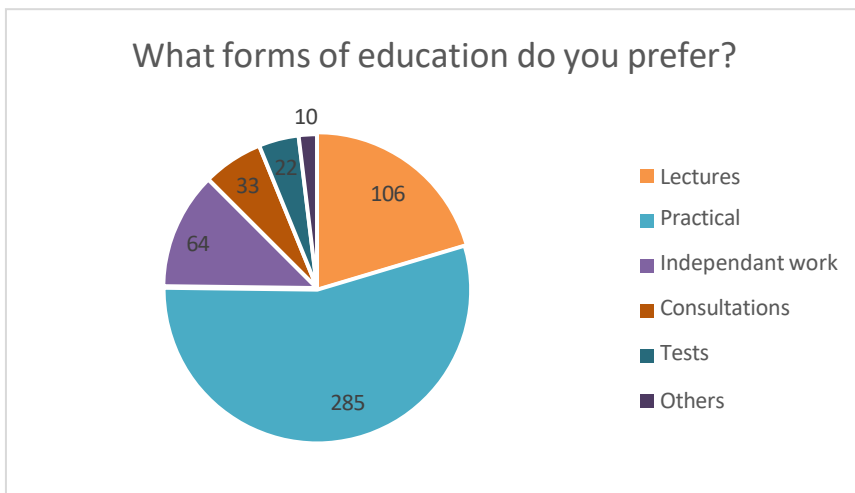**Figure 3** Subjects of the discipline.

Figure 4 Education forms.

In the conditions of war, patriotic education is of great importance. Therefore, this question was also asked of students. The main question was as follows: Do you participate in educational (literary and musical evenings, days of Ukrainian writing, Shevchenko days) and scientific (seminars, round tables, conferences, work of scientific circles) events of the Department of Ukrainian Language and Culture?
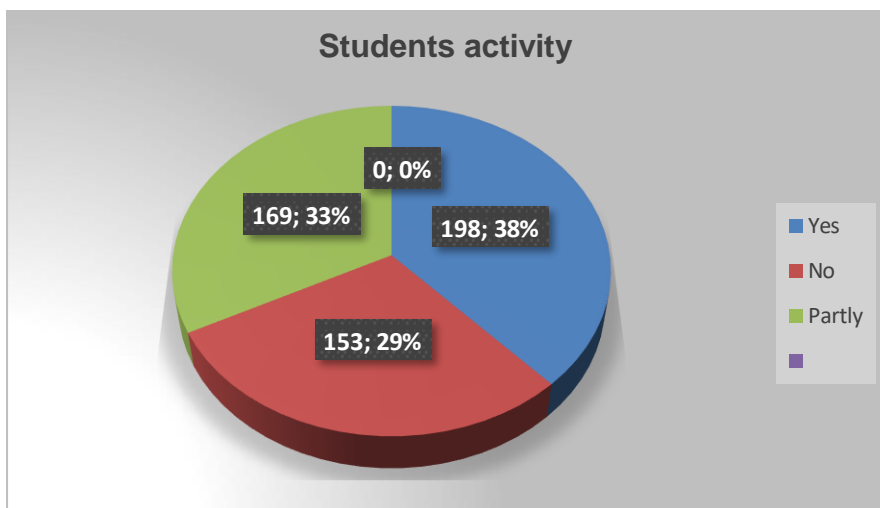

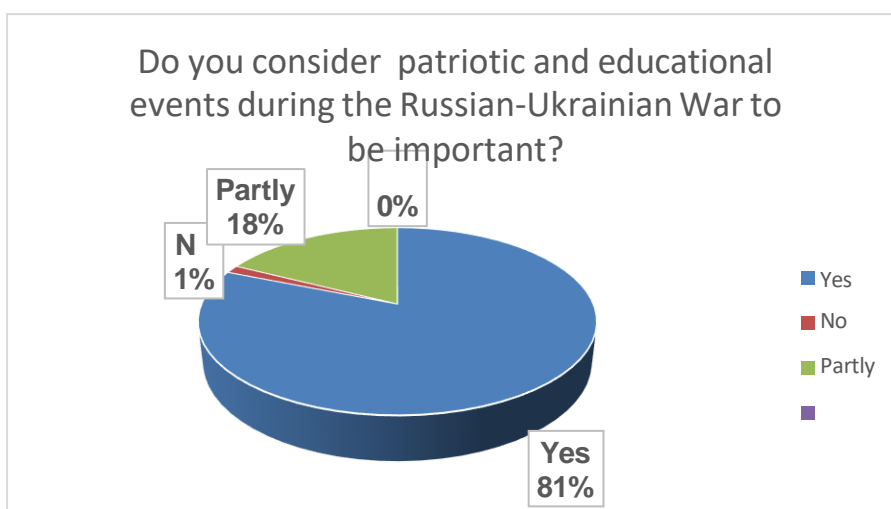**Figure 5** Students' activity.

Figure 6 The part of patriotic events in the educational process.

The researchers were satisfied with the results, as the students understand the importance of patriotic education in modern conditions.

The use of information and communication technologies in the educational process forms the motivation of learning and cognitive activity of students of the National Aviation University, affects the development of critical thinking, and deepens their level of scientific knowledge. Students developing information at the level of the test synthesis system prompts the formation of a new information field. The process stimulates students in 1–2 courses to develop communication skills, use information and communication technologies in training, and ensure the actualization of educational, cognitive, scientific, technical, and linguistic competence. It promotes the acquisition and practical application of professional knowledge and the crystallization of the conscious civil position of a participant in the development of the Ukrainian state on the principles of European and Euro-Atlantic integration (Uliana 2021).

N. Melnyk described modern trends of pedagogical education in Ukrainian and European universities and concluded that Ukrainian pedagogical education in universities was well integrated into the European educational system and scientific space, taking into account trends and best practices universities of leading European universities (Melnyk 2022).

With the beginning of the full-scale invasion, the language issue became quite acute, and hundreds of thousands of people switched to the Ukrainian language in everyday private life. The Ukrainian language has become the main identifier of national belonging. In Russian-speaking regions, people are also trying to switch to the state language so that they can be identified as Ukrainians. The situation is the same with the military and with volunteers... Therefore, it is extremely important to pay attention to the language used by Internet users: in what language is the Internet query created in the search engine and what information does the user receive as a result.

Lecturers should try to explain to students and graduates of Ukrainian higher education institutions how powerful the influence of the information space is on the individual to teach them how to work with information and communication technologies. This will reduce the vulnerability of the young generation to informational aggression.

The need to keep the educational process going under martial law determines the search for effective ways to provide education to students with different social and living conditions. For some students, the educational process under martial law is possible only with the use of information technology in a remote format (Hanna 2022).

Warfare and rapid political change created preconditions for a continuous process of

change in higher education (Ščerbinskis 2020). In the 2022–2023 academic year, educational and pedagogical staff offered students the opportunity to independently choose educational resources to deepen their knowledge of the Ukrainian language that they liked the most. A total of 120 first-year students of various fields of study were selected for the study. First, students had to choose those resources for learning the Ukrainian language online that they know about. Forty-three students among the respondents said that they could not do so. In the process of communicating with the respondents, those resources that were named by the students during the survey were selected. There are eleven of them.

1. "E-mova" is an educational platform of the public organization "Ukrainian World", and its goal is to create a Ukrainian-speaking cultural space. The program meets the requirements of the All-European recommendations for language education, which are based on communicative principles in all types of speech activities (listening, reading, speaking).

2. "Ukrainian language: life hacks" - a course in the form of useful advice on linguistics: from phonetics to stylistics. Mnemonic techniques are used. The course consists of 16 lectures (5 weeks of 4 hours). Additionally, there is an interactive synopsis.

3. "Language marathon" is a project aimed at popularizing the Ukrainian language by inviting participants to participate in the challenge: to speak the state language for 25 days and to complete various tasks online or offline.

4. "Language unites" - the official page of the Law of Ukraine "On Ensuring the Functioning of the Ukrainian Language as the State", which tracks the main events related to the implementation of the law's norms in life.

5. "Pure language" is a web page that contains the most current publications and media products on language topics. Helps to keep up with the latest news on language issues.

6. "Switch to Ukrainian" - the project talks about people who have switched to the Ukrainian language and have been communicating in it since then, their motivation, difficulties and successes. Materials and tips are provided for faster mastering and improvement of Ukrainian.

7. "Language policy portal". The main tasks of the project are to establish the Ukrainian language as the only dominant language in society, discuss thoughts, ideas, concepts, and coordinate actions for the direct popularization of the language.

8. "Words that enrich us." Images with rarely used Ukrainian words, phraseological units and substitutes for Russian words are published on the page. The page will help to enrich the vocabulary and avoid surzhik.

9. Linguistic portal "Mova.info". Among other things, the portal offers spelling rules and dictionary collections. For example, an open dictionary of the latest terms. The help desk has answers to frequently asked questions.

10. Website of Oleksandr Avramenko, a teacher at Kyiv University named after Borys Grinchenko and the author of textbooks on the Ukrainian language.

11. Official website of the Ukrainian language. On this site, you can find all the rules of the Ukrainian language, the history of Ukraine as a state, presentations, etc.

An additional task was to explain the motivation for choosing an educational resource. Most students expressed their trust only in official resources, as they often check their spelling knowledge there. A separate group of students explained that during preparation for the external independent assessment, they used the educational resource "Site of Oleksandr Avramenko" and continued to use the linguist's advice. The fact that most students had not heard anything about the E-mova platform turned out to be interesting, but during the experiment, they chose it precisely because of the interesting form of information presentation. Therefore, during preparation for classes, students additionally use information from the educational resources "E-Mova", "Life Hacks from the Ukrainian Language", "Language Marathon", "Portal of Language Policy", "Mova.info", "Site of Oleksandr Avramenko", and "The official site of the Ukrainian language".

The students agreed to further deepen their knowledge of the Ukrainian language with the help of social networks and informational Internet resources. This stimulates the cognitive activity of students, develops critical thinking, contributes to the development of learning motivation, and deepens the level of their scientific knowledge. They acquire the skills to find, analyse, process, store, and create new information.

Students in the 1st-2nd years have already begun to actively develop educational-cognitive, linguistic, scientific, technical competence, communication skills, and the ability to use information and communication technologies. This gave them the opportunity to acquire solid knowledge and use it for their own development and professional development. As active members of the Ukrainian community communicating in social networks, young people with such knowledge will be able to resist influential manipulators, categorically refute false information, and be active participants in the development of the Ukrainian state on the basis of European and Euro-Atlantic integration.

Public organizations also play an important educational role. It is worth noting that since 2014, the problem of adaptation of combatants to civilian life has become acute in Ukraine. With the beginning of a full-scale invasion, this situation increased exponentially. It is clear that posttraumatic stress disorders negatively affect the communicative activity of veterans of the Russian-Ukrainian war. The participants in hostilities have a hard time adapting to peaceful life, and their family members, especially the members of the families of the dead, have similar problems. People who have been under occupation for a long time also have a hard time adapting. Such persons need rehabilitation measures. In addition to financial assistance, people need social and psychological support.

I would like to focus special attention on the activities of one such institution, which was founded in 2019 in Kyiv by the efforts of veterans and volunteers – the Center for Rehabilitation and Adaptation of ATO Participants and JFO "YARMIZ". The title of this Center "YARMIZ" comes from the ancient Ukrainian word "yarmis", which means "way, means, exit". Employees of this center try to cover all important aspects.

Specialists provide psychological and sports rehabilitation, educational and social assistance, business consulting, etc. They take care of victims of hostilities and provide assistance to persons who, due to their own physical and psychological injuries, are limited in exercising their rights. They contribute to the social rehabilitation of low-income and unemployed persons with disabilities among the participants of the ATO. The center also conducts classes for children and teenagers from affected families and organizes interesting excursions, tourist trips, and rehabilitation.

The rehabilitation team includes veterans and family members of combatants, volunteers, and military psychologists who have been working with the target audience since 2014. The premises of the center have a convenient structure - educational studios-transformers, exercise and dance halls, a kitchen, a cafe, a changing room, shower rooms, etc. There is always enough space for the nature of the center's activities to help create an atmosphere of family cohesion, understanding and mutual support.

In 2021, with the support of the European Union in Ukraine and the International Renaissance Foundation, the Veteran Language Center "Dialogue" was founded in YARMIZ as a place for the presentation of cultures, where a space was created for getting to know the culture and traditions of different peoples of the world, learning English and Ukrainian languages, and annual ethno-festivals. On a volunteer basis, teachers of the Department of Ukrainian Language and Culture of the National Aviation University held 64 hours of lectures based on a specially developed curriculum. They taught visitors to the Center how to pronounce and write down words of the Ukrainian language correctly, to construct sentences logically, explained the new rules of the latest edition of spelling, and conducted trainings on drafting business documents.

The next stage of the work was the creation of a conversation club, where the listeners practiced active speaking, constructed dialogues, held discussions, and learned about interesting facts from Ukrainian history, culture, and literature. In addition, guest lectures were held on cultural topics: "Aspects of German ethnology" and "Aspects of French ethnology".

Rehabilitation work with veterans and their family members can have different directions and forms. It is important for the victims to come out of a depressed state, regain the skills to create positive contacts, master the ability to communicate freely in the official Ukrainian and English languages, and deepen their knowledge of the history and culture of their native people and peoples of the world. (наша публікація THE ROLE OF SOCIAL COMMUNICATIONS IN THE CONDITIONS OF THE RUSSIAN-UKRAINIAN WAR)

4. Conclusions

The use of information and communication technologies in the educational sphere is an important tool in the educational processes of specialists, particularly in conditions of war. This stimulates the cognitive activity of students and increases the quality of education.

Thus, in the conditions of distance learning and full-scale war, it is extremely necessary to pay special attention to the study of basic humanitarian disciplines in Ukrainian higher education institutions, particularly technical ones. This contributes to the training of real specialists who know the history, language and traditions of their own people. To understand and select true information, you need to orient yourself in the material. For example, on the Internet, we can read many propaganda materials about the absence of the Ukrainian state tradition, denial of the Ukrainian state in its modern borders, etc.

However, only an ignorant person who has no other information can be manipulated. These problems became the basis for the use of manipulative technologies to initiate a conflict zone in the information space, which led to a full-scale invasion. Teachers always paid great attention to humanitarian training: students attended lectures and practical classes, workshops, webinars, discussion clubs, meetings of scientific student groups, conferences, meetings, excursions, etc.

Department of Ukrainian language and culture propose increasing attention to students' study of business documentation, reviewing the content of the lecture material for relevance, and continuing to popularize educational and educational and national-patriotic activities among students.

To improve the educational process, we suggest increasing the number of communicative and situational tasks of an interactive nature, which will bring them closer to professional activities in the future. Performing situational exercises is aimed at forming the ability to solve complex professional tasks of an interactive nature. This contributes to the development of the ability to use the theoretical knowledge obtained at lectures when solving practical tasks and morally and psychologically prepare students for future professional activities.

The possibility of using educational Internet services, Internet resources and social networks during the study of humanitarian disciplines in technical institutions of higher education has advantages and disadvantages. Working with educational Internet services (in particular, Google Classroom), students receive information systematically, mobile, conveniently, using innovative technologies. The advantages of interactive didactic materials are their clarity, creativity, and accessibility. The content, forms, and teaching methods are dynamically updated, particularly the individualization of the educational process. The teacher's role is marked by constant interaction with students.

As an additional tool in the educational process, it is convenient to use social networks because it does not require students time to adapt and gives them the opportunity to use free educational online resources, deepen their knowledge of the Ukrainian language, culture, history, etc., and diversify the educational material with multimedia means. Students can independently study the educational material in an extended format, participate in the joint creation of educational material in groups, participate in the discussion of problematic issues on various forums, receive prompt consultations from teachers and expert students, etc.

When using social networks in the educational process, it is also necessary to take into account certain shortcomings - a poorly functional information search system, low structure, dispersal of information, imperfect security of user protection, the presence of unverified information and nonnormative content, etc.

Therefore, the teacher should control the use of social networks by students only for educational purposes. The application of the possibilities of social networks in the educational process involves three directions: an additional opportunity for independent work of students; deepening of the classroom learning material and opportunities of an educational nature; use of Internet materials by teachers to diversify text and visual material for conducting classes, writing plans, lecture notes, scientific articles, and organizing educational events.

Ethical considerations

Not applicable.

Conflict of Interest

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Formation of foreign language competence of future lawyers/law enforcement officers: Contemporary challenges

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Abstract The article highlights an increasingly popular English teaching form in 2021-2022. The authors realize the most effective ways and methodologies to form foreign language competence of future lawyers and law enforcement officers. The article reveals that these methodologies can overcome contemporary challenges, including the Pandemic and Global destabilization. The article under consideration aims to demonstrate pedagogical approaches, interactive applications, and digitalized resources that, in theoretical and practical terms, have a positive experience in training future law enforcement officers in disciplines such as "Foreign Language" and "Foreign Language for Professional Purposes" at higher educational establishments of the Ministry of Internal Affairs of Ukraine. The study proves the author's method of forming foreign language competence of future lawyers/law enforcement officers using educational web technologies, which have the following components: pedagogical and organizational, users, language, social, and technical. The methodology expresses the following conceptual principles: multilevel nature of foreign language teaching which involves the formation of students' different communicative competencies per the European recommendations on language education; communicative orientation of learning foreign languages, which allows students to form competencies on which the success and effectiveness of intercultural communication depend; organization of foreign language training based on professionally-oriented material; integration of educational Web and pedagogical technologies (blended learning, methods of projects and case technologies, students' electronic language portfolio) which allow implementing the principle of individual approach to learning foreign languages; informal education in foreign language training at higher educational institutions with specific conditions of learning taking into account the gender approach in the process of forming the foreign language competence of future law enforcement officers. Based on the study, the authors concluded that the availability and prevalence of educational Web-technologies allow their use as an integrated part of foreign language training of non-philological students, especially in a blended learning format. Furthermore, the obtained experimental data allowed the formulation of methodological recommendations corresponding to the research results.

Keywords: adaptive learning, challenges, and benefits, cross-educational communication, English language, interactive tools, University of Law

1. Introduction

In an increasingly interconnected and globalized world, the demand for foreign language competence among professionals has become more prominent than ever before. Among the diverse array of professions requiring such skills, the legal field stands out as one that necessitates a high level of proficiency in foreign languages. Future lawyers and law enforcement officers must navigate an evolving landscape where cross-border interactions, international collaboration, and multicultural communication are integral components of their work.

The formation of foreign language competence among future lawyers and law enforcement officers poses contemporary challenges that need to be addressed. As legal systems continue to interact on an international scale, lawyers are frequently required to interpret and apply laws from different jurisdictions, represent clients from diverse cultural backgrounds, and engage in negotiations and legal proceedings with foreign counterparts. Similarly, law enforcement officers face situations that require effective communication with individuals from different linguistic and cultural backgrounds, such as international investigations, border control, and collaboration with foreign law enforcement agencies.

This paper explores the contemporary challenges involved in developing foreign language competence among future lawyers and law enforcement officers. It examines the importance of linguistic proficiency in the legal profession, the specific challenges faced by these professionals, and the strategies and initiatives that can be implemented to overcome these challenges. By addressing these issues, we can better understand the implications of foreign language competence for the legal field and develop effective approaches to equip future lawyers and law enforcement officers with the necessary linguistic skills.

The globalization of legal systems, advancements in technology, and the increased mobility of individuals across borders have significantly impacted the legal profession. Lawyers and law enforcement officers are now required to engage with a diverse range of clients, witnesses, defendants, and colleagues who speak different languages. The ability to communicate effectively in foreign languages is crucial for establishing rapport, gaining a comprehensive understanding of legal issues, ensuring accurate interpretation and translation, and facilitating fair and just outcomes.

Moreover, foreign language competence is not solely about communication; it also encompasses the comprehension of cultural nuances, customs, and legal traditions. Understanding the cultural context in which legal processes occur is essential for effectively representing clients and resolving legal disputes. Foreign language proficiency allows lawyers and law enforcement officers to transcend linguistic barriers, fostering trust and cooperation while avoiding misunderstandings or misinterpretations that could have significant consequences for legal proceedings.

While recognizing the importance of foreign language competence, we must also acknowledge the contemporary challenges associated with its formation among future lawyers and law enforcement officers. These challenges encompass factors such as limited resources, time constraints, the need for specialized legal terminology, and the rapid evolution of language and technology. Overcoming these challenges requires a comprehensive approach that includes innovative teaching methodologies, integration of language training into legal curricula, collaboration between legal and language professionals, and the effective utilization of technological tools.

The purpose of this article is to explore the contemporary challenges involved in developing foreign language competence among future lawyers and law enforcement officers. In accordance with the purpose the following hypotheses were put forward:

1. The study of foreign language competence among Future Lawyers/Law Enforcement Officers corresponds to the demands of the globalized legal landscape.

2. The implementation of Eurointegration compels Lawyers/Law Enforcement Officers to intensively study foreign languages for the purpose of cooperation in cross-border interactions.

2. Literature Review

Numerous studies emphasize the significance of foreign language competence for lawyers and law enforcement officers. Liberman et al (2017) highlight that effective communication in foreign languages is essential for professionals in legal settings, enabling them to engage in international cooperation, participate in cross-border investigations, and navigate multilingual legal environments. Moreover, foreign language skills enhance professionals' abilities to comprehend legal texts, interpret international treaties, and interact with diverse clients and witnesses (Yogesh et al 2022). Researchers such as Zappa-Hollman (2017), Yu and Liu (2017), Van den Branden (2016), Schiller (2009), Mano (2022), Little (2003) emphasize the need for innovative and learner-centered approaches to foreign language training, moving away from traditional grammar-based instruction towards communicative and task-based methodologies. This shift enables students to develop practical language skills relevant to their future legal careers (Abdulkadir et al 2019). Mamonova (2020) highlights the challenges associated with teaching legal English, as it requires a deep understanding of legal terminology, genres, and conventions. Legal discourse poses unique linguistic challenges, and educators must develop specialized materials and strategies to address these complexities.

The integration of technology in foreign language learning has gained significant attention in recent years (Chapelle et al 2015; Alharbi 2022; Peng et al 2023). Researchers, such as Khairulina and Dubova (2021) emphasize the benefits of incorporating computer-assisted language learning (CALL) tools, virtual simulations, and online resources to enhance language acquisition and provide opportunities for authentic legal communication. These technological tools facilitate interactive learning experiences and allow learners to practice legal language skills in simulated professional contexts (Hadley and Charles 2017).

In addition to language proficiency, intercultural competence is essential for lawyers and law enforcement officers working in diverse cultural settings. Rahaman et al (2020) highlight the importance of developing intercultural sensitivity and cross-cultural communication skills to navigate cultural differences, understand diverse legal systems, and effectively interact with clients, witnesses, and colleagues from different cultural backgrounds. Effective assessment and evaluation methods are crucial for measuring the attainment of foreign language competence (Khairulina,2021). Koehler and Vilarinho-Pereira (2021) emphasizes the need for comprehensive assessment frameworks that consider multiple language skills (listening, speaking, reading, writing) and integrate legal-specific language tasks and assessments. Authentic assessments, such as role plays, case studies, and legal document analysis, provide a more accurate reflection of learners' language abilities in legal contexts.

Methodological approaches, the specificity of legal discourse, integration of technology, intercultural competence, and appropriate assessment methods are crucial factors that need to be considered to enhance foreign language training in these

fields. By addressing these challenges, educators and institutions can better equip future lawyers and law enforcement officers with the necessary linguistic and cultural competencies to excel in their professions in a globalized world.

3. Methods

The assessment of foreign language proficiency among future lawyers/law enforcement officers was conducted through a survey of cadets specializing in Law (081) at Luhansk State University of Internal Affairs named after Ye.O. Didorenko. The research consisted of the following stages:

1.   Group selection: The study was conducted with three groups of cadets corresponding to different educational qualification levels of the bachelor's program in Law (081). The first group consisted of 28 cadets from the first year (Group I), the second group consisted of 23 cadets from the second year (Group II), and the third group consisted of 25 cadets from the third year (Group III).

2.   Goal definition: Determining the main objectives of the research, including the assessment of language learning competencies among cadets specializing in Law (081).

3.   Methodology development: Development of a specific methodology for teaching foreign languages used during the experiment. This methodology included various approaches such as individual learning, group exercises, use of interactive technologies, etc.

4.   Implementation of the control stage: Conducting an initial test to assess the students' knowledge level in each group before implementing the author's methodology.

5.   Application of the author's methodology: Utilizing the author's methodology for teaching foreign languages, taking into account the particularities of each group of cadets.

6.   Data collection: Gathering and analysing data after the implementation of the author's methodology.

7.   Results analysis: Analysing the obtained results after applying the author's methodology. The results included changes in the knowledge levels of the cadets at different proficiency levels (A1, A2, B1, B2) in each group compared to the initial indicators.

8.   Comparison with the control group: Comparing the results of the experimental group, which used the author's methodology, with the control group that did not change its approach to learning.

9.   Conclusions: Formulating conclusions regarding the effectiveness of the author's methodology for teaching foreign languages among cadets in the specialty of 081 "Jurisprudence" based on the analysis of results.

Additionally, the research applied a systematic and logical analysis and a method of information generalization based on the comprehensive collection of materials related to the pedagogical field. This means that data on the students' learning outcomes were systematically gathered and organized to establish connections and identify patterns. Data analysis was employed based on logical principles, including comparison, classification, generalization, and drawing conclusions.

The method of information generalization helped to systematize and summarize the collected data into general conclusions. This included analyzing changes in the students' knowledge levels at different proficiency levels (A1, A2, B1, B2), comparing the results of the experimental and control groups, and evaluating the effectiveness of the author's methodology. The application of systematic and logical analysis and the method of information generalization allowed for informed conclusions regarding the impact of the author's methodology on the learning outcomes of cadets in the specialty of 081 "Jurisprudence".

3. Results

Modern foreign language learning is oriented towards the use of online platforms and services. Among such technologies, platforms aimed at incorporating technology for grammar mastery and listening skills stand out. For example, "My English Lab" and "English Interactive Worksheets" have proven to be quite effective during experimentation. However, it is worth emphasizing the effectiveness of the comprehensive "My English Lab" package developed by Pearson. This learning package consists of a textbook and an interactive application that allows for a thorough practice of grammar theory and application. Another popular tool for reinforcing acquired grammar skills is "English Interactive Worksheets." This tool enables teachers to create interactive grammar exercises aligned with the curriculum and set assessment criteria and time limits. With the author's approach and limited time, learners can focus on the tasks at hand instead of seeking ways to cheat or searching for answers online.

Additionally, the service "Flippity" (flippity.net) is widely used to enhance language skills acquisition and foster interest in foreign language learning. It has the potential to impact all factors that increase learning motivation and can be utilized at all stages of education. The "Randomizer" tool allows for quick grouping of learners into groups of any size and assigns the computer to select a student who wants to respond. The use of tools such as crossword puzzles, flashcards, memory simulators, and others can help students memorize terms, concepts, names, dates, and more. In summarizing any topic, the quiz "Your Game" can be valuable. Teachers can track the progress of each student using the "Progress Indicator." Thus, the capabilities of the flippity.net service assist language instructors in optimizing the teaching process and its outcomes with a set of valuable

tools. By utilizing this service, teachers can make any lesson engaging, captivating, and effective. Placement tests, achievement tests, and professional tests are conducted using the adaptive control and learning tool with block adaptation strategy, which is hosted on the specialized website https://test.aim2.top.

Regarding the assessment of practical foreign language skills in the Ministry of Internal Affairs institutions, a system is widely used that consists of a task bank comprising tests of 5 levels of difficulty (Elementary, Pre-Intermediate, Intermediate, Upper-Intermediate, Advanced). The computer provides tasks corresponding to the 3rd level of difficulty (Intermediate). In case of 10% incorrect answers, the program displays tasks of the Pre-Intermediate 2 level. If the student cannot cope, the computer lowers the tasks to level 1. Similarly, there is an increase in difficulty from Intermediate to Upper-Intermediate to Advanced.

The following criteria are used to terminate the test:
• All questions in the test bank have been exhausted.
• The level of knowledge has been assessed with sufficient accuracy.
• The respondent demonstrated a low level of knowledge while completing the test tasks.

During adaptive testing, students with a high level of foreign language knowledge receive more challenging tasks, while those with a low level receive easier ones. Some students may have an equal number of correct answers, but considering the difficulty of the questions, each receives scores within a certain language level range.

Information about incorrect answers is displayed on the screen: question number, language level (A1, A2, B1, B2), student's response, correct answer, topic, and a web link to the material where the error occurred.

Each student receives an individual set of tasks. As a result, the possibility of hints and memorizing correct answers is minimized. Additionally, during retaking the test, students perform new tasks, which can reduce the impact of the practice effect. Since the question bank contains 800 questions covering all language levels, this significantly reduces the influence of guessing on test results.

The decision to change the order of test composition is made after analyzing the results of processing a specific block of tasks and allows the instructor to provide the student, regardless of their location in any part of the city, country, or world, with tasks corresponding to their level of knowledge (Krasnopolskyi et al 2016).

The current trend towards transitioning to distance learning requires the adaptation of educational and pedagogical approaches in foreign language learning. The existing Ukrainian distance education system is a relatively diverse system of knowledge transmission at a distance, utilizing various means and technologies. As a result, students acquire the necessary information for successful practical application. Therefore, solving the identified issues is only possible through quality management of the processes implemented in higher education institutions and the creation of an innovative higher education environment – a system of relationships based on a complex of organizational, methodological, and psychological measures that actively incorporate innovations into the educational process.

The use of informal learning in foreign language preparation for higher education students.

Informal education is an education that is typically obtained through educational programs and does not lead to the awarding of officially recognized educational qualifications by level of education, but may result in the acquisition of professional and/or partial educational qualifications (Ovcharenko 2020).

Types of informal education include:
• Professional-oriented and general cultural courses, professional development courses, training in educational centers, participation in academic mobility programs, internships.
• Short-term courses, conferences, seminars, competitions, summer or winter schools, trainings, workshops, and more.

Informal language training for higher education students (cadets, masters, postgraduates/adjuncts) is conducted based on integrated massive open online courses (MOOCs). Cadets of the Luhansk State University of Internal Affairs named after E.O. Didorenko study and receive certificates for courses such as "Ethics of Judges, Prosecutors, and Lawyers"; International Cooperation in Criminal Cases; Introduction to the ECHR and ECtHR; Family Law and Human Rights; Refugees and ECtHR; Anti-Discrimination, located on the "Human Rights Education for Legal Professionals" (HELP) platform developed by the European Union for law enforcement agencies. They also take English language courses developed by US universities and hosted on the Coursera platform: Conversational English Course; Grammar and Punctuation; Improve Your English Communication Skills; Speak English Professionally: In Person, Online, on the Phone; Create Your Professional E-Portfolio in English.

Currently, students and cadets are taking online courses on the LEEd CEPOL educational platform. The LEEd CEPOL educational platform is aimed at enhancing and exchanging experiences among police officers from European countries. It provides the opportunity for online learning and a new online learning system, CEPOL. Regarding the assessment of the effectiveness of foreign language competence development for future lawyers/law enforcement officers, a survey was conducted among cadets of three courses of the educational qualification level "Bachelor" in the field of 081 "Jurisprudence" at the Luhansk State University of Internal Affairs named after E.O. Didorenko. The research results highlighted the following trends in the implementation of author's language teaching methodologies (Table 1):
1. Reduction of cadets who had the A1 level of foreign language proficiency by %. 10.25%

2. Increase in foreign language proficiency at A2 and B1 levels, - 4.4%, B2 by 2.0%.

Table 1 Results of implementing the foreign language teaching methodology of Luhansk State University of Internal Affairs named after E.O. Didorenko.

Group	Level of proficiency in foreign language			
	A1	A2	B1	B2
Experimental	Decrease in 14,2 %	Increase in 7,32 %	Increase in 6,2 %	Increase in 1,6 %
Control	Decrease in 6,2 %	Increase in 1,5 %	Increase in 3,7 %	Increase in 0,4 %

Source: the author's development.

The indicator of effectiveness in foreign language training for non-philology students (progression from A1 to A2 to B1 to B2) increased by 31%. As a result of the experiment, it was found that adaptive knowledge assessment saved 15% of testing time compared to traditional methods. The study justified the author's methodology for developing the foreign language competence of future lawyers/law enforcement officers using educational web technologies, which encompasses the following components: pedagogical-organizational, user-oriented, linguistic, social, and technical.

4. Discussion

Although the development of speaking skills has long been the main focus of foreign language teaching, one of the most critical developments in this area recently has been increasing attention to mastering the culture of native speakers and the development of intercultural competence of higher education students along with the development of their speech skills. The MLA Ad Hoc Committee on Foreign Languages explains that the goal of foreign language teaching today should be "educated speakers who have deep translingual and transcultural competence" (Foreign languages and higher education 2007). Furthermore, it is emphasized that "deep cultural knowledge and speech competence are equally necessary" (Foreign Languages and Higher Education 2007) to understand people and their communities. This emphasis illustrates the dual goal of developing speaking skills and cultural competence in foreign language teaching in the 21st century, particularly in Foreign Language for Professional Purposes classes.

One of the features of teaching foreign languages to cadets is motivation. However, there are some difficulties. An additional difficulty in increasing interest in learning foreign languages is that, until recently, law enforcement officers had minimal opportunities to use a foreign language in real-life foreign language communication situations. On the other hand, active participation of our state in international political life, holding mass international events (political, cultural, sports), and mandatory involvement of the Ministry of Internal Affairs staff in maintaining law and order significantly increase the need to learn a professional foreign language.

Another problem in creating motivation is that cadets of higher educational institutions study a foreign language initially during the formation of general cultural competencies. Professionally oriented subjects are taught much later; therefore, first-year cadets have yet to learn of the peculiarities of their future activities. Consequently, they need help determining interests in communication, including foreign languages.

Practical classes in the discipline "Foreign Language for Professional Purposes" are the primary educational activity. The method of teaching a foreign language for professional purposes at Luhansk State University of Internal Affairs named after E. O. Didorenko is based on the improvement of all types of language skills, namely reading, listening, speaking, and writing at each stage of learning and interaction with other disciplines; professionally-oriented training and individual approach to each cadet. In addition, various exercises (answers to questions, translation, composing situational monologues and dialogues, role-play) facilitate the formation of speaking skills.

Particular attention in foreign language classes is paid to developing and improving communicative and intercultural competence. For instance, when studying the topics "The US Police" or "Judiciary in Great Britain," particular attention is focused on important issues that are inherent in the culture and traditions of the United States or Great Britain. The intensification of the educational process is also facilitated by interactive teaching methods (projects, role-play, discussions, etc.), as well as the latest educational technologies based on the most recent achievements of domestic and foreign pedagogical science.

5. Conclusions

Based on the conducted research on the learning outcomes of the students majoring in "Jurisprudence" at Luhansk State University of Internal Affairs named after E.O. Didorenko and the application of the author's foreign language teaching methodology, several conclusions can be drawn. The experimental group, which utilized the author's teaching methodology, showed improvements in knowledge levels compared to the control group. The number of students in the experimental group with A1 proficiency level decreased by 14.2%, indicating an enhancement of their language skills. The proficiency levels of the experimental group in A2 and B2 increased by 7.32% and 2.6% respectively, demonstrating a positive impact of the author's methodology on improving foreign language proficiency. The control group also showed some changes in knowledge levels,

albeit to a lesser extent than the experimental group. The application of systematic-logical analysis and information generalization allowed for proper data processing and substantiated conclusions regarding the effectiveness of the author's methodology. Therefore, it can be affirmed that the use of the author's foreign language teaching methodology contributes to the improvement of knowledge levels among students majoring in "Jurisprudence" at Luhansk State University of Internal Affairs named after E.O. Didorenko.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

The language education and the language component as an element of countering hybrid threats in Ukraine
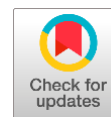
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Abstract This article examines the role of language education and the language component as an element in countering hybrid threats in Ukraine. Language is explored as a symbol of national identity and a unifying force among Ukrainians in the face of external threats. The literature review investigates language shift and transition from Russian to Ukrainian, particularly among Russian-speaking Ukrainians, as an act of resistance and assertion of Ukrainian identity. Survey data revealed that 90.5% of respondents consider the Ukrainian language important, and 88.5% believe it is necessary to exclusively communicate in Ukrainian within Ukraine. Notably, 41% of Russian-speaking Ukrainians have already transitioned fully or partially to Ukrainian since the invasion. The study also found a decrease in the proportion of Ukrainian residents speaking only Russian at home, from 37% to 13% between 2012 and 2022. Additionally, prior to the invasion, approximately half of Ukrainians frequently watched Russian films or listened to Russian music. Findings emphasize the importance of language education and promotion in countering hybrid threats and preserving linguistic diversity in Ukraine. This research contributes to the understanding of the language component in Ukraine's response to hybrid threats and provides insights for policymakers and educators in fostering language resilience and national identity. This research sheds light on the evolving language dynamics and underscores the importance of the language component in countering hybrid threats in Ukraine. It provides valuable insights into the language attitudes and behaviors of the Ukrainian population and highlights the role of language education and promotion in preserving national identity and resilience in the face of hybrid warfare.

Keywords: Language component, Russia's hybrid warfare against Ukraine, the Ukrainian language

1. Introduction

Language education plays a crucial role in promoting societal cohesion and safeguarding national security. In the context of Ukraine, a country grappling with hybrid threats, the language component emerges as a significant element in countering these multifaceted challenges. Hybrid threats encompass a wide range of tactics, including disinformation campaigns, cyberattacks, and cultural manipulation, which aim to exploit linguistic divisions and sow discord within a nation. Recognizing the importance of language education as a tool for resilience, Ukraine has been actively investing in initiatives that foster linguistic unity, enhance critical thinking, and promote media literacy among its population.

Ukraine has experienced a complex historical and linguistic landscape, with Ukrainian and Russian being the two predominant languages spoken within its borders. This linguistic diversity has not only enriched the country's cultural heritage but has also been exploited by external actors seeking to undermine Ukraine's sovereignty and territorial integrity. Hybrid warfare strategies, often employed by Russia, have targeted linguistic fault lines to fuel internal divisions and destabilize the nation. To effectively counter these threats, Ukraine has recognized the need to prioritize language education as a means to strengthen national unity, enhance citizens' resilience, and fortify the societal fabric against external manipulations.

By emphasizing the importance of language education, Ukraine aims to empower its citizens with the necessary skills to critically evaluate information, identify disinformation, and actively participate in the country's democratic processes. Language education programs focus on fostering linguistic proficiency, promoting cultural understanding, and nurturing a sense of national identity that transcends linguistic divisions. By equipping individuals with strong language skills and a comprehensive understanding of their linguistic and cultural heritage, Ukraine aims to build a resilient society capable of withstanding hybrid threats and preserving its national security.

Furthermore, language education serves as a vital tool for countering hybrid threats in the digital realm. With the proliferation of social media and online platforms, information spreads rapidly and can easily be manipulated to exploit

linguistic fault lines. Therefore, Ukraine has also emphasized the need for media literacy education, enabling individuals to critically assess the information they encounter online and detect potential disinformation campaigns. By developing media literacy skills alongside language proficiency, Ukraine seeks to empower its population to be discerning consumers of information and active contributors to countering hybrid threats.

Language education plays a central role in countering hybrid threats in Ukraine. By investing in initiatives that foster linguistic unity, enhance critical thinking, and promote media literacy, Ukraine seeks to build a resilient society capable of withstanding external manipulations. By nurturing linguistic proficiency and cultural understanding, language education acts as a powerful defense against hybrid warfare, bolstering national security and ensuring the stability and resilience of Ukraine's future.

Therefore, the purpose of the study is to establish the role of language education and the language component as an element of countering hybrid threats in Ukraine.

Accordingly, the following research tasks were set:

— - determine the share of citizens for whom Ukrainian is their native language and the distribution of the population of Ukraine by native language;
— - to analyze the role of language education and the language component in countering hybrid threats in Ukraine, in particular in the context of protecting information security and national security.

2. Literature Review

The language education and the language component have become crucial factors in countering hybrid threats in Ukraine. As Ukraine faces ongoing challenges, including external aggression and attempts at cultural assimilation, understanding the role of language in countering these threats becomes imperative (Averianova and Voropayeva 2019). The Russian Empire and later the Soviet Union employed various strategies to suppress the Ukrainian language and promote Russian as the dominant language. Repression, genocide, and language policies aimed at assimilating Ukraine into the Russian world characterized this period. Studies of Averianova and Voropayeva (2021) shed light on the impact of these policies on language use and identity formation among Ukrainians.

Language plays a vital role in shaping national identity and cultural heritage. For Ukrainians, the Ukrainian language serves as a symbol of their distinct national identity and a tool to preserve their cultural values. The literature (Azhniuk 2018; Rehbein and Romaniuk 2014; Matviyishyn and Michalski 2017) explores how language serves as a unifying force among Ukrainians, strengthening their sense of belonging and resistance against external threats.

The ongoing conflict and hybrid threats in Ukraine have contributed to shifts in language usage among the population. Studies (Bilaniuk 2005; Kochergan 2008; Josías 2022) investigate the transition from Russian to Ukrainian, particularly among Russian-speaking Ukrainians, as an act of resistance and assertion of Ukrainian identity. The motivations, challenges, and consequences of this language shift are examined, shedding light on the societal and individual factors driving this linguistic transformation (Kulyk 2017; Matusza 2021).

The role of language education and promotion programs in countering hybrid threats is a critical aspect to consider. Researchers analyze the effectiveness of language education initiatives in strengthening the Ukrainian language and fostering linguistic pride. The literature explores various strategies, such as language courses, online platforms, and cultural programs, aimed at promoting Ukrainian language proficiency and preserving national identity (Moser 2013; Tkachuk and Tkachuk 2021).

The literature also examines language policies and legislation implemented in Ukraine to protect and promote the Ukrainian language. Scholars assess the impact of language laws on language use, education, media, and public discourse (Bilaniuk and Melnyk 2008; Hentschel and Taranenko 2021; Danylenko and Naienko 2019). The analysis delves into debates surrounding language policies, exploring their implications for countering hybrid threats and safeguarding Ukraine's linguistic and cultural diversity (Marcu 2021; Uffelmann 2019).

The literature review highlights the significance of language education and the language component in countering hybrid threats in Ukraine (Lewis et. al. 2014; Hentschel and Taranenko 2015). It emphasizes the role of language in shaping national identity, resisting external aggression, and preserving cultural heritage (Hornberger et al 2018). The review (Norton and Toohey 2011; Brooks 2022) explores the historical context, language shift dynamics, language education initiatives, and language policies as integral elements in countering hybrid threats. Understanding these factors is crucial for policymakers, educators, and researchers to develop effective strategies to protect the Ukrainian language and promote linguistic diversity in Ukraine's diverse society.

3. Methods and Materials

The following methods are applied in the article:
1. Systematization of Statistical Data:

Statistical data from the State Statistics Service of Ukraine was systematized to determine the state of the citizens' share for which Ukrainian was their native language, based on the census conducted in 2001. This data provided insights into the linguistic composition of the country.

2. Nationwide Survey and Analysis:

A nationwide survey conducted by the sociological group "Rating" was systematically and logically analyzed. The survey aimed to determine the level of Ukrainian language usage, the consumption of Russian films and music by Ukrainians, and the status of Ukrainian and Russian languages following the full-scale invasion of Ukraine by the Russian Federation. The survey data were synthesized and analyzed to identify trends and patterns.

3. Analysis of Government and Reporting Office Data:

Statistical data published by the country's government and reporting offices were summarized to assess the distribution of the Ukrainian population by native language. This analysis provided an understanding of the linguistic landscape within the country. 4. Comparison Method:

A comparison method was employed to distinguish the level of language use by Ukrainians at home and to assess the transition of Russian-speaking Ukrainians to Ukrainian-speaking individuals. This method helped identify shifts in language preferences and understand the linguistic dynamics within Ukrainian society.

To determine the individual features of the Ukrainian language and the impact of the war on the process of transition from Russian-speaking to Ukrainian-speaking Ukrainians, a survey was conducted using descriptive statistics through MS Forms Pro. The online survey took place from June 30 to September 10 2022, and collected information from 25,630 respondents. The survey addressed research questions such as the importance of speaking only Ukrainian for the country and the significance of freely expressing one's opinion in Ukrainian, among others. The survey aimed to gain insights into the attitudes and preferences of the respondents regarding the Ukrainian language in the context of the ongoing war. It sought to assess the perceived importance of speaking Ukrainian as the national language and the degree to which individuals felt it was necessary for everyone in the country to freely express their opinions in Ukrainian.

4. Results

Following the conquest of a significant portion of Ukraine's territory in the 18th century, the Russian Empire and later the Soviet Union pursued a policy of assimilating the Ukrainian people and integrating Ukraine into Russia through repressive measures and acts of genocide. However, one of Russia's purported triumphs, the extensive Russification of southeastern Ukraine during the 20th century, experienced a significant decline after the full-scale invasion of Ukraine by Russia in February 2022. In the aftermath of the invasion, residents of regions where Russian had been predominantly spoken began undergoing a substantial shift towards the use of the Ukrainian language, even in areas where Ukrainian had lost its dominant position several decades earlier. According to the survey conducted by the sociological group "Rating," the results indicated a notable decline in the percentage of Ukrainians speaking only Russian at home from 37% in 2012 to 13% in 2022 (refer to Figure 1).

These findings suggest a significant linguistic transformation within Ukrainian society, reflecting a renewed embrace of the Ukrainian language and a shift away from exclusive Russian language usage. The Russian invasion of 2022 appears to have acted as a catalyst for this language shift, prompting residents in previously Russian-speaking regions to adopt Ukrainian as their primary means of communication. These survey results provide compelling evidence of the changing language landscape in Ukraine, illustrating a diminishing influence of the Russian language and a resurgence of the Ukrainian language. The implications of this linguistic transition extend beyond language preferences, reflecting a broader socio-cultural response to the events unfolding in the wake of the Russian invasion.

The increasing popularity of Ukrainian as a native language reflects a significant trend in Ukraine. In contemporary circumstances, Ukrainian is gradually assuming the role of a language associated with culture, prestige, and business, replacing Russian. Previously, Ukraine exhibited a strong regional divide. Ukrainian served as both the native language and the language of culture and intelligentsia in the western regions. In contrast, Russian held an informal status as the "language of cities" in the eastern parts of Ukraine, a remnant of its historical colonial dominance.

For instance, in the early 2000s, it was common to observe two TV presenters speaking different languages on the same broadcast, with one presenting in Ukrainian and the other in Russian. However, this practice has since disappeared, and now all TV presenters speak Ukrainian. Notably, the first Russian invasion in 2014 prompted a significant shift, with nearly all TV presenters transitioning to using the Ukrainian language.

Before the invasion in 2022, approximately half of Ukrainians frequently or occasionally watched Russian films or listened to Russian music. However, the ongoing war has had a considerable impact on these numbers. Currently, only 14% of respondents sometimes watch Russian movies, while 25% listen to Russian music. Moreover, 68% of respondents state that they have not watched any Russian films since the invasion, and 53% note that they have not listened to any Russian songs (refer to Figure 2).
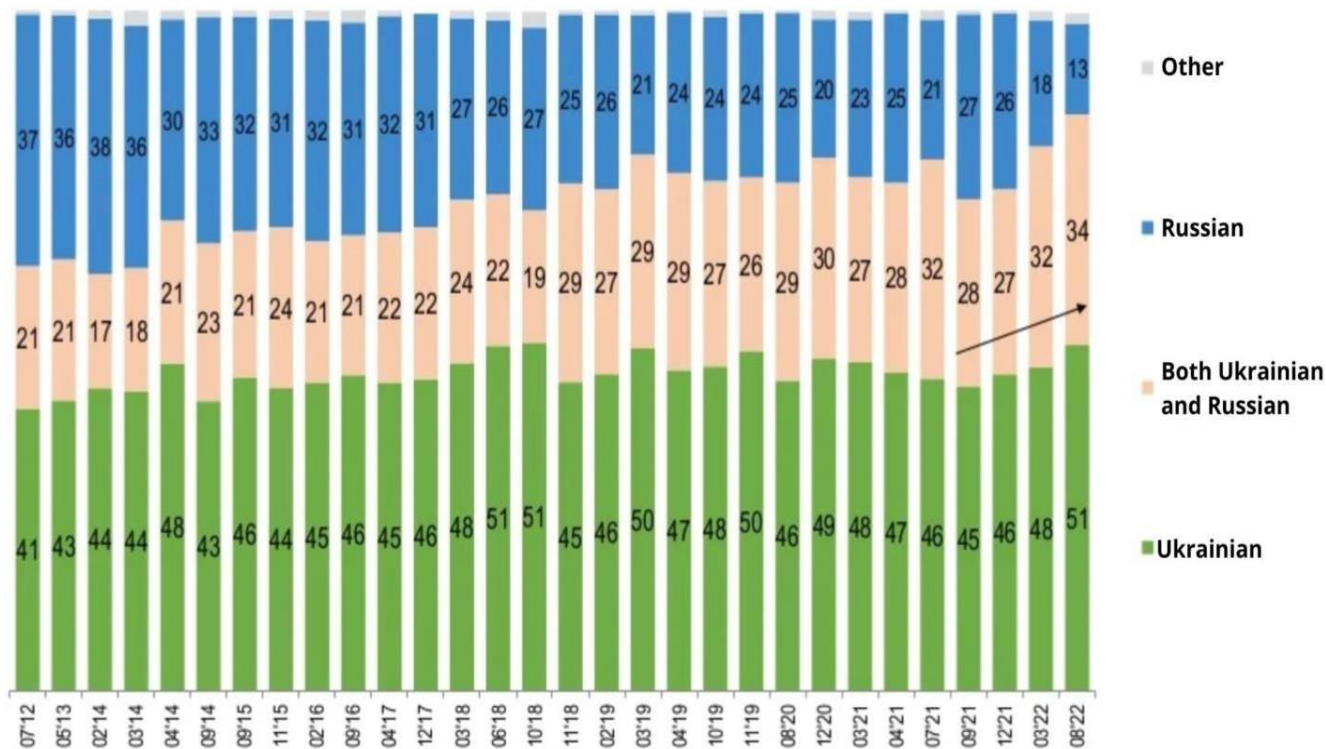
Figure 1 The languages Ukrainians use to communicate at home according to the sociological group "Rating", from July 2012 to August 2022. *Source:* Compiled by the authors based on official data of (Sociological group "Rating" 2022).

How often did you watch Russian films?

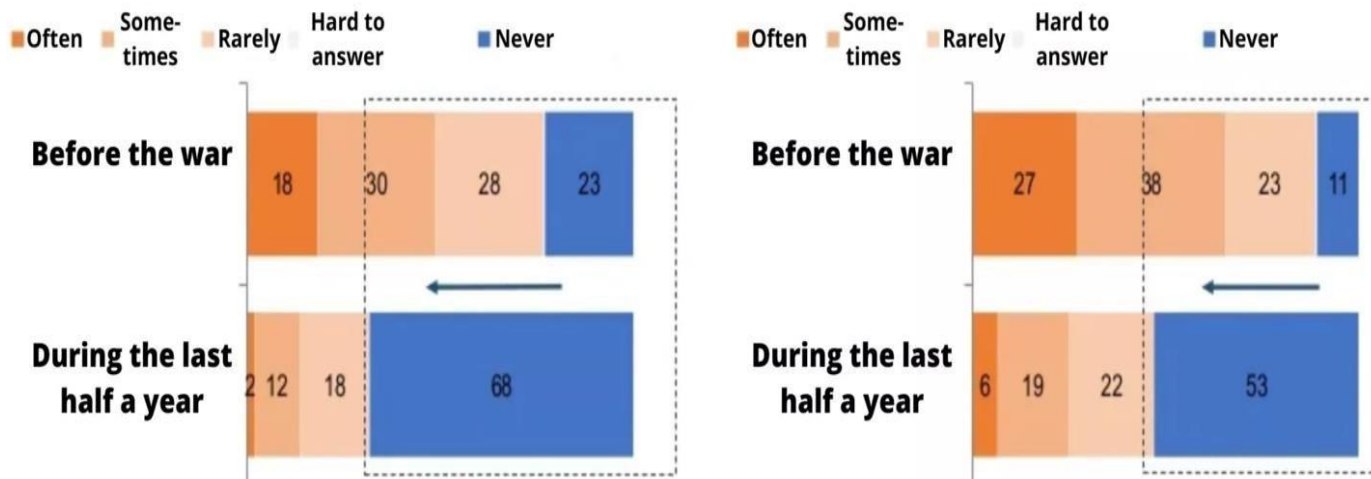## How often did you listen to music of Russian singers?

Figure 2 The share of Ukrainians watching Russian films or listening to Russian music after Russia's full-scale invasion of Ukraine. *Source:* Compiled by the authors based on official data of (Sociological group "Rating" 2022).

These findings indicate a substantial change in cultural preferences and media consumption patterns. The war has led to a significant decrease in the consumption of Russian films and music among Ukrainians, with a notable shift towards embracing Ukrainian cultural products. This shift represents a broader sociocultural response to the ongoing conflict and exemplifies the changing dynamics in language and cultural affiliations within Ukrainian society.

According to Figure 3, in the 2001 census data, only 44% of the population spoke exclusively Ukrainian at home, while 15% spoke both Ukrainian and Russian.
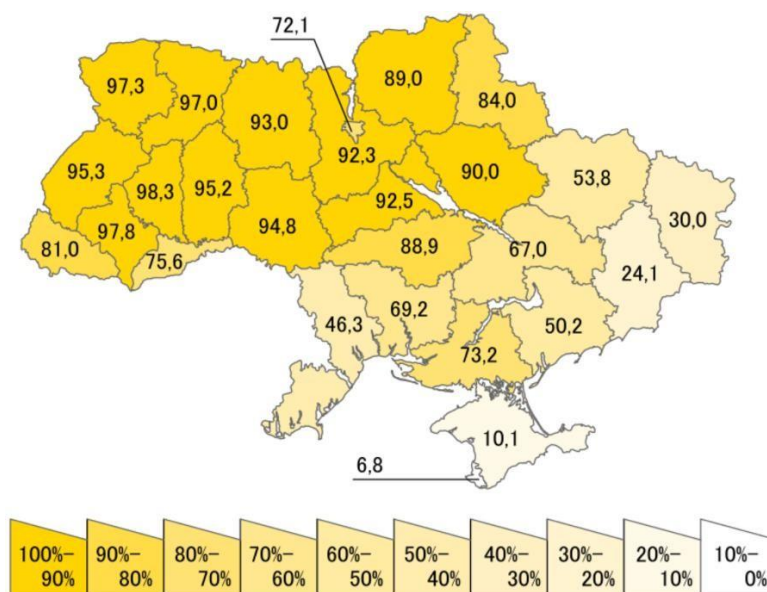
Figure 3 The share of citizens for whom Ukrainian is their native language, according to the census as of 2001. *Source:* Compiled by the authors based on official data of (the State Statistics Service of Ukraine 2022).

These statistics shed light on the complex linguistic landscape of Ukraine. While a significant percentage of the population identifies as Ukrainian by nationality, there is a notable variation in the language preferences and usage patterns. The fact that a relatively lower proportion of individuals speak exclusively Ukrainian at home indicates the influence of other languages, particularly Russian, in daily interactions.

This linguistic diversity and the discrepancy between national identity and native language usage can be attributed to historical factors, including the efforts of the Russian Empire and the USSR to promote Russian and suppress Ukrainian. These policies have left a lasting impact on the linguistic dynamics within Ukraine, resulting in a complex interplay between Ukrainian and Russian languages.

In the southeastern regions, Russia propagates the narrative that Russians living there are awaiting liberation by Russian troops. However, the reality is that these regions are populated by Ukrainians. Their ancestors endured the devastating Holodomor famine of the 1930s and subsequent mass repressions, resulting in a partial Russification over time. Figure 4 reveals that 78% of the population identified themselves as Ukrainians by nationality. However, when considering native language, only 67.5% considered Ukrainian as their primary language. Presently, these Ukrainian communities have a strong motivation to retaliate against the Russians and repel their unprovoked invasion.
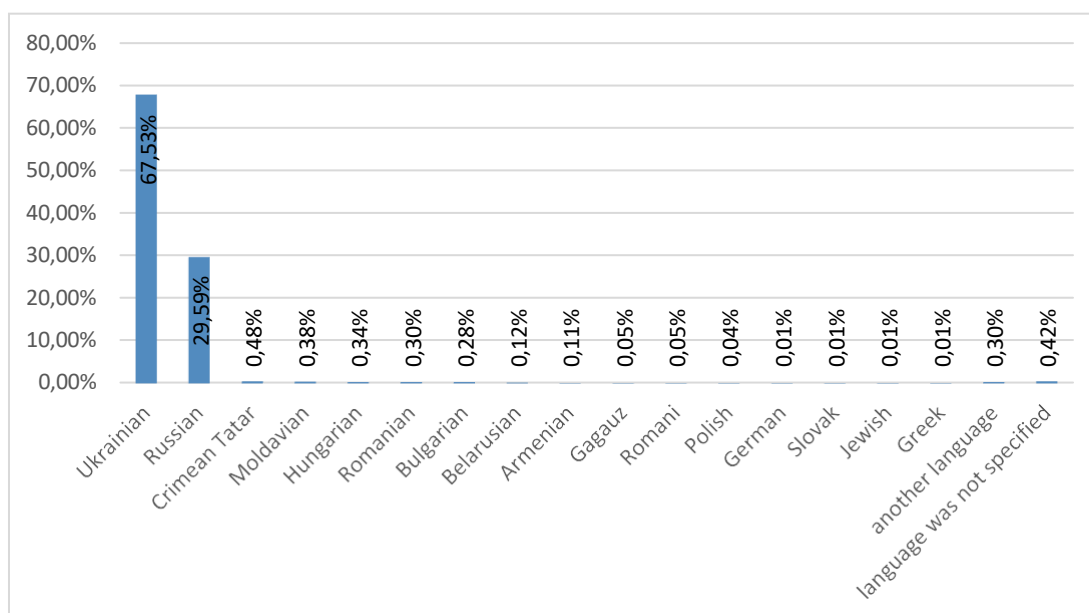

Figure 4 Distribution of the population of Ukraine by the native language 2001. *Source:* Compiled by the authors based on official data of (the State Statistics Service of Ukraine 2022).

It is worth noting that many Ukrainians in Ukraine possess knowledge of both Ukrainian and Russian languages, not due to linguistic similarity, but rather because of the historically strong presence of Russian alongside Ukrainian, which was heavily promoted, even in mass media, until recent years. Nonetheless, Ukrainian and Russian are distinct languages, with Ukrainian sharing the highest similarity to Belarusian (84%), followed by Polish (70%) and Slovak (68%), while Russian shows a similarity rate of 62%.

To evaluate the language component within Russia's hybrid warfare against Ukraine, a survey was conducted from June 30 to September 10 2022. The survey collected information from 25,630 internet-connected respondents. The study findings reveal that 90.5% of respondents acknowledge the importance of the Ukrainian language, while 88.5% believe it is necessary to exclusively use Ukrainian in Ukraine (refer to Table 1).

The language component of Russia's contemporary hybrid warfare against Ukraine has played a significant role, motivating Russian-speaking Ukrainians to transition too Ukrainian. This shift demonstrates the resilience and determination of the Ukrainian people to assert their national identity and preserve their language amidst external challenges.

Table 1 The results of the survey.

Questionnaire		%
In your opinion, how important is it for your country to speak only Ukrainian?	Ukrainian is important (7-10)	90,5
Think about your country today. What benefit will this measure bring?	Ukrainian citizens must speak Ukrainian (7-10)	88,5
The Ukrainian language is important, because the country should have its own national identity and uniqueness	Deficit of the Ukrainian language in society	45,4
Which of the following statements is closest to your standpoint? "I think that .."	Ukrainian is used to an insufficient extent	38,7
	Ukrainian is used to a sufficient extent	73,3
	Ukrainian is used more than necessary	5,4
How important is it for everyone in your country to be able to freely express one's opinion in Ukrainian?	Communication in Ukrainian is an important state-building process (Very important)	88,9
"Everyone can freely express his opinion in Ukrainian in my country"	Assessment of communication in Ukrainian (7-10)	86,5
Do you agree or disagree with the following statements? "The Ukrainian language in my country is under threat because of..."	Russia's constant interference by assimilating the population of Ukraine into the Russian world	73,2
	Russia's information and cyber warfare	72,1
	Constant political pressure on the part of the Russian special services and the threat of arrest forced Ukrainians to leave the temporarily occupied territories	44,3
	Implementing the idea of linguistic dismemberment of Ukraine	58,5
	Other reasons	54,3

Source: Compiled by the authors.

Despite the pretext of "protecting" Russian speakers, the full-scale military invasion led to a surprising outcome—many Russian-speaking citizens in Ukraine chose to abandon the Russian language in favor of Ukrainian. It is important to note that these individuals did not identify themselves as Russian; rather, they had only used the Russian language due to the language policies of the former Russian Empire.

As of August 2022, a significant majority of 86% of Ukrainian citizens believe that Ukrainian should be the sole official language of the country. Only 3% of respondents expressed support for Russian to become the second state language. Additionally, 10% of respondents suggested that Russian should receive official status in specific regions alongside Ukrainian (refer to Figure 5).

These findings highlight a shift in language preferences and a strong desire among Ukrainians to uphold the status of the Ukrainian language. It signifies a broader sentiment of national identity and a rejection of external influence. Despite historical factors and the invasion's context, the Ukrainian language has emerged as a unifying force and an essential element of Ukraine's cultural and linguistic heritage.

It is noteworthy that the Russian invasion of Ukraine resulted in a significant increase in the number of Ukrainian-speaking Ukrainians, particularly in the southeastern regions that Russia targeted for seizure. Prior to 2022, these regions were predominantly inhabited by Russian-speaking citizens. However, according to a sociological survey conducted by the "Rating" agency, there has been a notable shift in language usage after Russia's full-scale invasion.

In the unoccupied regions of southern and eastern Ukraine, 31% and 34% of citizens respectively transitioned to speaking Ukrainian. In comparison, the figures for the central and western regions were approximately 16% and 3% respectively. It is important to note that the majority of people in these regions were already primarily speaking Ukrainian. As a result, a significant proportion of Russian-speaking Ukrainians, around 41%, has either fully or partially switched to using Ukrainian following the invasion (refer to Figure 6).
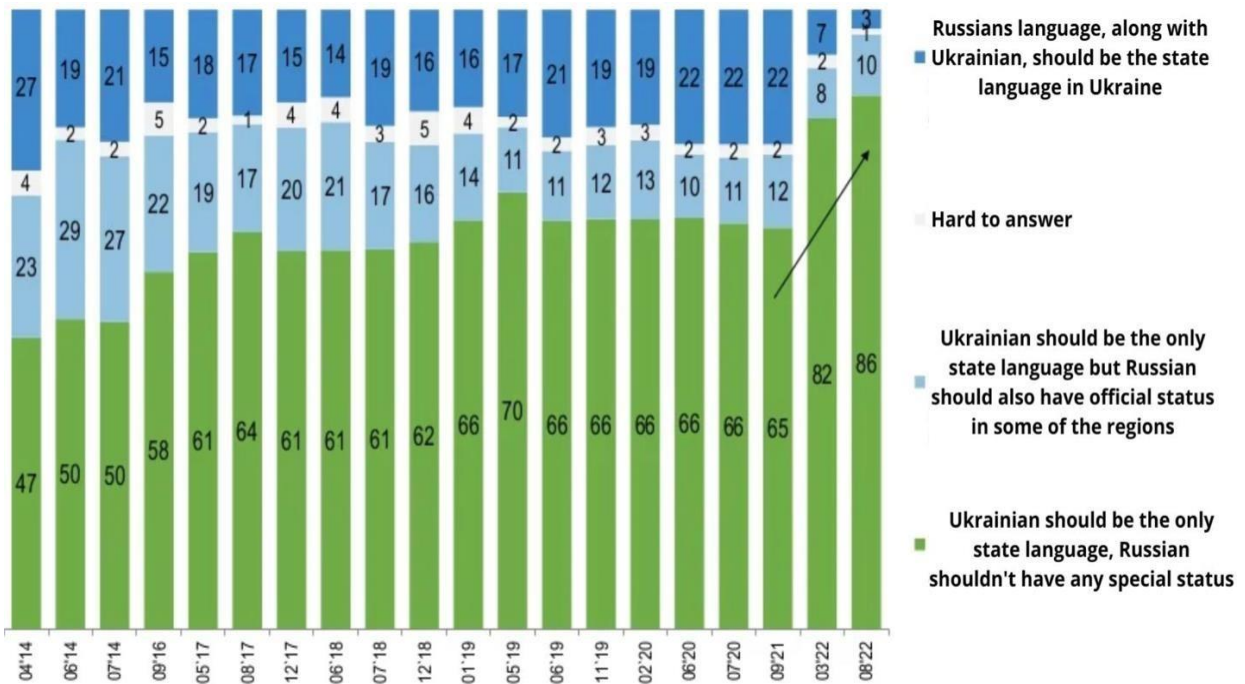
Figure 5 Predictions concerning the status of Ukrainian and Russian after Russia's full-scale invasion of Ukraine. *Source:* Compiled by the authors by official data of (Sociological group "Rating" 2022).
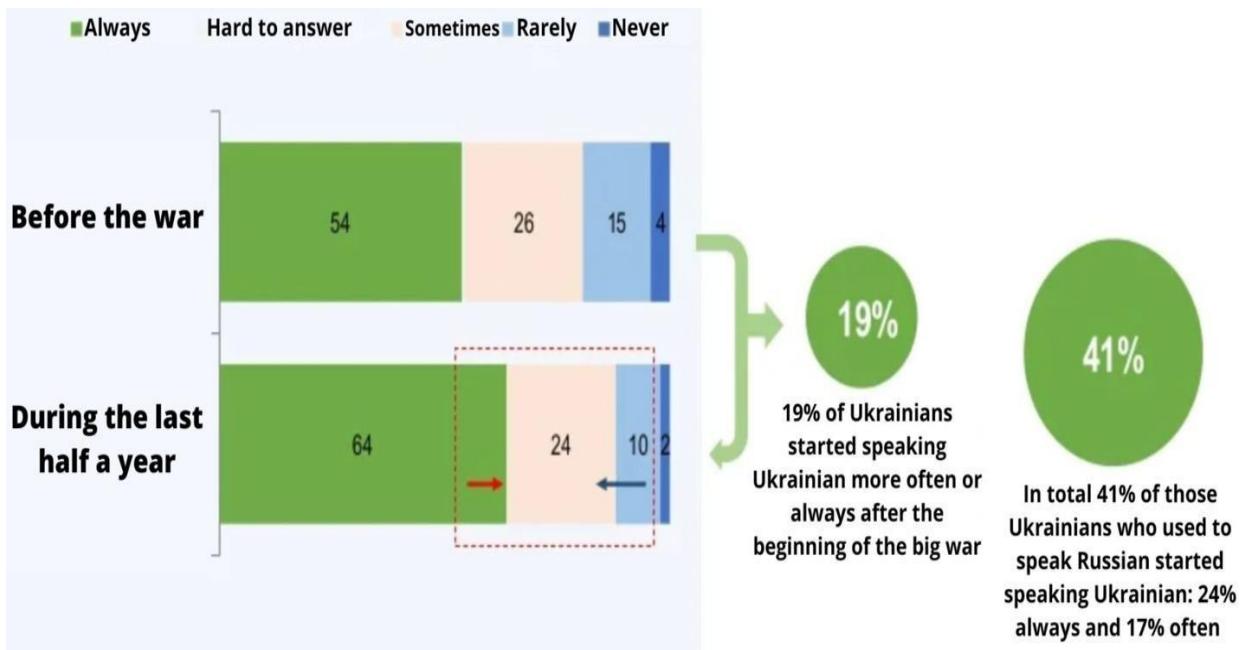

Figure 6 Percent of Ukrainians who have completely or partially switched to the Ukrainian language in Ukraine. *Source:* Compiled by the authors based on official data of (Sociological group "Rating" 2022).

This data highlights the impact of the conflict on language dynamics, with Russian-speaking Ukrainians embracing Ukrainian in greater numbers, particularly in the regions directly affected by the invasion. The shift in language usage reflects a strengthening of national identity and a response to the external aggression, as Ukrainians assert their linguistic heritage and reinforce their connection to the Ukrainian language.

It was established that 86% of Ukrainian citizens believe that Ukrainian should be the only state language. 3% of respondents believe that Russian should become the second state language. Along with this, 10% believe that Russian should receive an official status in some regions, in parallel with Ukrainian. As a result, 41% of Russian-speaking Ukrainians have already fully or partially switched to Ukrainian after Russia's full-scale invasion of Ukraine.

Already in 2019, 8% of Ukrainians believed that studying the Russian language in schools does not make sense, and now this number has increased to 52%. Although 42% of the population supports preserving the study of the Russian language in schools to a certain extent, there have been internal changes to reduce the amount of time devoted to studying this language.

Thus, in 1998, 46% of the population believed that the volume of studying the Russian language should be equal to the volume of studying the Ukrainian language. In 2019, this number was 30%, and now it is only 3%. In addition, the number of people who believe that the Russian language should be studied to a lesser extent than Ukrainian, but more than other foreign languages, decreased from 32% to 6%. In fact, of the 42% of the population that supports learning Russian, the vast majority - 33% (or almost 80% of this category of citizens) - would like to see the Russian language given as much or less time than other foreign languages. The war fundamentally changed the views of the Ukrainian population on the study of the Russian language in secondary school (Figure 7).
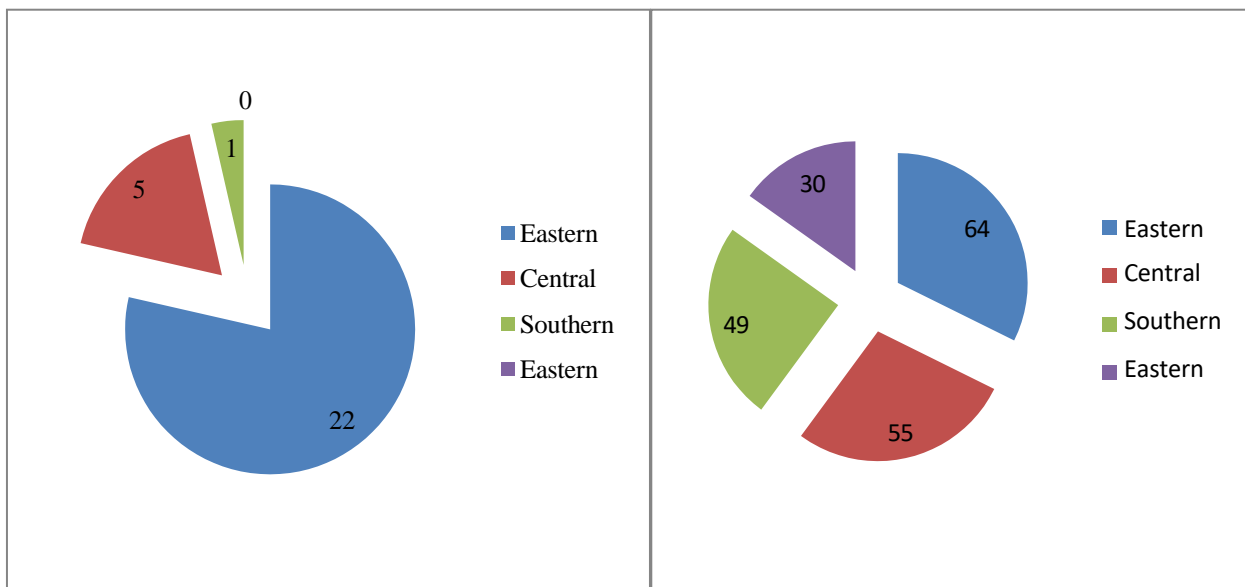

Figure 7 Priority of refusal to study the Russian language in Ukrainian schools in different regions of Ukraine in 2019 and 2023. *Source: Compiled by the authorsbased on (Kyiv International Institute of Sociology 2023).*

Undoubtedly, due to the Russian attack on Ukraine, the vast majority of Ukrainians prioritize the study of the Ukrainian language in the school curriculum. Therefore, the linguistic component of contemporary Russia's hybrid warfare against Ukraine will face new problems in the process of popularizing the Ukrainian language in Ukraine. Along with this, its in-depth studying will cause increased attention to improving the language policy development process with the aim of complete Ukrainization of modern Ukrainian society.

5. Discussion

In the military dimension, the Russian-Ukrainian conflict is localized, covering part of the territory of Ukraine; however, the discourse of this hybrid warfare has acquired a global character. The interpretive component of contemporary Russia's hybrid warfare against Ukraine or the cognitive dimension of this war is implemented through discursive verbal-semiotic means (Tkachuk and Tkachuk 2021).

Attitudes towards languages at the level of state policy change along with power shifts. The influence of Soviet policy is still present due to implementing the dominant position of Russian in Ukraine. After Ukraine had gained independence, Ukrainian got the opportunity to be the state language. However, it was distributed unevenly territorially, which is manifested in pronounced bilingualism and linguistic bipolarity. These circumstances were one of the endogenous factors in developing the armed conflict in the east of Ukraine and the annexation of the Crimean peninsula by the Russian Federation in 2014 (Matviyishyn and Michalski 2017).

The growing popularity and expanding opportunities of Ukrainian helped to overcome political differences between the south-east and north-west of Ukraine, especially in the language issue. Until 2014, the language issue was often debatable by internal political forces due to the fact that about half of Ukrainians supported Ukrainian as the only state language for all regions, while the other half favored Russian as a second state or official language, for some regions, in parallel with Ukrainian. The second group of Ukrainians decreased significantly after the Russian aggression in Crimea and Donbas in 2014 and practically decreased to almost zero during the Russian invasion in 2022 (Sociological group "Rating" 2022).

In order to prevent similar negative processes in other regions of Ukraine, it is necessary to take measures that would combine both the creation of conditions for strengthening Ukrainian as the state language and promoting the development of minority languages (due to the lack of financial resources, it remains mainly in the declarative sphere) (Matviyishyn, Michalski 2017).

6. Conclusions

The language component has emerged as a significant element in countering hybrid threats in Ukraine. The Russian Empire and the Soviet Union employed various measures to suppress the Ukrainian language and assimilate Ukraine into the Russian world. However, the invasion of Ukraine in 2014 and the subsequent full-scale Russian invasion in 2022 have triggered a remarkable shift in language dynamics.

The Ukrainian language has experienced resurgence and has gained prominence as the language of culture, prestige, and business, gradually replacing Russian. This shift is evident in the increased number of Ukrainians speaking Ukrainian at home and the decline in the use of Russian in various domains, such as media and entertainment. The war has had a profound impact on language preferences, leading to a significant number of Russian-speaking Ukrainians embracing Ukrainian. The desire to assert national identity and resist external aggression has motivated Ukrainians to strengthen their linguistic ties and preserve their language. Ukrainian language courses have become increasingly popular, facilitating the transition from Russian to Ukrainian.

Survey data highlights the importance of the Ukrainian language to the majority of Ukrainian citizens. The overwhelming majority believe that Ukrainian should be the only state language, reflecting a strong nationalistic sentiment. This demonstrates the resilience of the Ukrainian people and their determination to preserve their cultural and linguistic heritage. The language shift observed in southeastern regions, previously dominated by Russian-speaking citizens, is particularly significant. The invasion has led to a remarkable increase in the number of Ukrainian-speaking Ukrainians in these areas. This trend signifies the rejection of external influence and the assertion of Ukrainian identity, even in regions targeted by Russia.

In summary, the language education and the language component have played a crucial role in countering hybrid threats in Ukraine. The transition from Russian to Ukrainian, the growing popularity of Ukrainian language courses, and the strong belief in the importance of Ukrainian as the state language all indicate the resilience and determination of the Ukrainian people to protect their language and national identity in the face of external challenges.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Linguistic and literary educational field in the system of communicative field formation
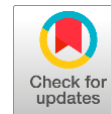
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Abstract This research investigates the linguistic and literary educational field and its impact on the formation of the communicative field. By analyzing key aspects such as state policies, pedagogical approaches, and the integration of linguistic and literary elements, this study aims to provide a comprehensive understanding of the field's features, principles, and significance in developing students' communicative abilities. Through a thorough literature review, this research highlights the importance of cultural competence within the educational curriculum. The incorporation of literature, history, and cultural disciplines allows students to develop a broader perspective and understanding of different cultures, thereby enhancing their ability to communicate effectively and respectfully in diverse settings. The study examines the role of digital technologies in the educational process. The utilization of digital tools and resources presents opportunities to enrich teaching methods and create engaging and interactive learning experiences. By embracing these technological advancements, educational institutions can equip students with the necessary skills for effective communication in a digitalized world. The research also emphasizes the significance of competent and well-prepared teachers in fostering communicative competence. Effective pedagogical practices, innovative teaching methodologies, and continuous professional development programs for teachers are essential in shaping students' communication skills and keeping pace with evolving language education trends.

Keywords: linguistic and literary field, communicative field, educational process, communication component, communication goal, foreign language

1. Introduction

The linguistic and literary educational field holds a prominent position within the framework of communicative field formation. It serves as a crucial pillar in the development of effective communication and language proficiency. This field encompasses the comprehensive study and exploration of language and literature, equipping individuals with the necessary skills and knowledge to engage meaningfully in written and spoken discourse.

In the linguistic aspect of this field, students delve into the intricate structure of language, including its grammar, vocabulary, phonetics, and syntax. By understanding the mechanics of language, individuals gain the ability to express themselves with clarity, precision, and coherence. They learn to navigate the intricacies of grammar, ensuring grammatical accuracy in their communication. Additionally, by expanding their vocabulary, learners can articulate their thoughts and ideas more effectively, further enhancing their communication skills.

Moreover, the phonetics component of the linguistic and literary educational field enables students to master the sounds and pronunciation patterns of a language. Through phonetic training, individuals acquire the ability to produce and comprehend sounds accurately, leading to improved pronunciation and oral communication skills. This fosters greater clarity and comprehension when engaging in conversations, presentations, or public speaking.

The study of syntax, on the other hand, provides learners with a framework to analyze and understand the organization and structure of sentences. By examining sentence structure, word order, and grammatical relationships, students develop a deeper comprehension of how language functions. This knowledge enhances their ability to construct coherent and meaningful sentences, facilitating effective written and spoken communication. In addition to the linguistic dimension, the Literary Educational Field encompasses the exploration of literature and its cultural significance. By engaging with a variety of literary works, such as novels, poems, plays, and essays, individuals are exposed to different literary genres, styles, and themes. Through the analysis of literary texts, students develop critical thinking skills, expand their worldview, and gain insights into the human experience. Literature also serves as a medium for self-expression, allowing individuals to explore their own

creativity and imagination. Furthermore, the study of literature fosters empathy and understanding by exposing students to diverse perspectives and narratives. By examining literary works from different cultures and time periods, learners gain a deeper appreciation for the richness and diversity of human expression. This understanding of diverse cultures and perspectives enhances their ability to communicate and collaborate in multicultural and global contexts.

The linguistic and literary educational field is a vital component of the communicative field formation. Through the study of language and literature, individuals develop essential skills in effective communication, critical thinking, and cultural understanding. This field equips learners with the tools necessary to navigate the complexities of language, enabling them to express themselves fluently and engage meaningfully in various social, academic, and professional contexts.

The research aims to analyze the characteristics and principles of the linguistic and literary educational field within the framework of communicative field formation, emphasizing its role in developing students' competence. A significant focus of the research involves outlining state policies that promote the advancement of this field, as well as enhancing the pedagogical composition and teaching methodologies in the long run.

2. Literature Review

The literature review explored and synthesized existing research on the linguistic and literary educational field within the broader context of communicative field formation. Relevant studies and scholarly works were examined to gain a comprehensive understanding of the features, principles, and significance of this field in shaping students' communicative abilities. Additionally, the review aimed to shed light on the role of state policies, pedagogical approaches, and the integration of linguistic and literary elements in the educational process.

Numerous studies have emphasized the importance of linguistic education in communicative field formation. Research by Smith (2017) highlighted the crucial role of grammar, vocabulary, and phonetics in developing language proficiency. It underlined the significance of explicit instruction, practice, and feedback in fostering accurate and effective communication skills (Melchers 2016). Additionally, Brown (2019) emphasized the benefits of incorporating syntax analysis and sentence structure comprehension to enhance communicative competence.

The literary dimension of the linguistic and literary educational field contributes to the development of cultural awareness, critical thinking, and empathy. Studies by Johnson (2018) and Martinez (2020) examined the impact of literature on students' cognitive and socio-emotional development. They found that exposure to diverse literary works promotes a deeper understanding of different cultures, perspectives, and human experiences (Montessori 2019). Moreover, Smithson (2021) emphasized the role of literature in enhancing creativity and self-expression, allowing learners to engage with imaginative and thought-provoking texts.

The review of state policies regarding the linguistic and literary educational field revealed several common principles. Research by Froiland (2019) emphasized the significance of a comprehensive language curriculum, incorporating linguistic and literary components, supported by continuous professional development for teachers (Rahimi and Katal 2012). Furthermore, studies by Kelly et al (2022) and Haleem et al (2022) highlighted the importance of fostering a supportive learning environment that promotes active student engagement, encourages critical thinking, and values cultural diversity.

The integration of linguistic and literary elements in communicative field formation has received considerable attention. Research by Sancenon (2022) explored the benefits of integrating literature into language instruction, indicating enhanced motivation, language acquisition, and communicative skills among learners. Similarly, Thompson (2003) investigated the use of authentic literary texts to develop language proficiency, cultural competence, and critical thinking skills.

The review emphasizes the significance of literature in fostering cultural understanding, critical thinking, and creativity. State policies and pedagogical approaches that prioritize comprehensive language education and the integration of linguistic and literary elements are crucial for students' communicative competence. Moving forward, further research is warranted to explore innovative instructional strategies and assess the long-term impact of the linguistic and literary educational field on students' communicative abilities.

3. Materials and Methods

During the research process, various scientific methods were employed to analyze the fundamental theoretical, practical, and methodological aspects of forming the communicative educational field through the development of the linguistic and literary field. The search method was utilized to analyze contemporary educational programs and identify the operational strategies of higher education institutions that prioritize effective student development, particularly in terms of cultural formation. Enhancing cognitive abilities and communication skills is vital for facilitating the exchange of cultural experiences among individuals from diverse backgrounds, especially considering the prevailing trends of globalization and worldwide market integration.

The synthesis method was employed to outline the key principles of establishing the linguistic and literary field and explore the potential for advancing the communicative field through improvements in institutional learning processes. The academic paper primarily analyzes the integration of digital technologies as a means to enhance teaching methodologies and

cultivate students' cognitive engagement and interest. Interactive lessons and collaborative group projects are considered effective methods for reinforcing the formation of the communicative educational field, as they have become essential in teaching foreign languages, literature, and history in modern educational settings.

The induction method was applied to identify key strategies for developing skills and abilities aimed at improving contemporary foundations and enhancing communicative competencies. The research methodology employed in this study involved considering relevant theoretical provisions and examining state policies promoting the linguistic and literary educational field within the broader context of communicative field formation. The research methodology employed in this study allows for the presentation of the research findings obtained throughout the investigation.

4. Results

The issue of the linguistic and literary educational field in the system of forming the communicative field plays an important role in ensuring an effective educational process. The problem lies in the fact that using modern means of the learning environment should be aimed at forming students' cognitive abilities and using their own communication processes in a professional and educational environment. The communication field involves the ability to apply specialized discourse based on the curriculum and a specific discipline. However, its formation is possible only by developing a literary component and a cultural center for students and pupils. That is why, under such conditions, the need to strengthen the language and literature branch of education performs several functions at once. Firstly, this indicates the strengthening of the quality of cultural development and the possibility of applying historical knowledge for the exchange of knowledge, cultural experience, etc. Secondly, using the linguistic and literary field can improve students' vocabulary and develop their communication skills, which are key means for forming the communication educational field. In addition, mastering foreign languages will form the key fundamentals for the exchange of modern vocabulary and can be a factor in improving the quality of education development in the conditions of the modern educational process.

In European Union's developed countries, the issue of literary and cultural education plays an important role, as evidenced by the curriculum formation and the number of hours allocated to mastering these disciplines. The formation of effective knowledge of these disciplines will be a factor in improving the communication quality and the possibility of exchanging experiences between foreign cultures' representatives and will also be a means for developing emotional intelligence. The opportunity to learn a foreign language contributes to a better understanding of foreign culture, as well as the ability to communicate with foreign cultures' representatives. However, using a foreign language should be anchored on the basis of using practical communication. A high-quality means of strengthening communication skills of a foreign language and improving the literary component can be a discussion of the material covered. There are various exercises in modern education aimed at improving the acquired knowledge and the possibility of their application in practical discourse. In particular, it should be taken into account that the policy of modern educational institutions is often aimed at accessibility and openness for foreign students, which strengthens the role of developing the communication educational field and the ability to use it as a key tool for improving one's educational environment.

The issue of accessibility and openness of educational institutions plays a crucial role due to the spread of the coronavirus pandemic and the worsening of the general economic crisis. Under such conditions, processes are taking place regarding the creation of private educational institutions that can compete with traditional ones. The advantage of developing such private educational institutions is the possibility of obtaining an affordable education, as well as a more financially attractive one, in contrast to other public ones. Such higher educational institutions contain a number of programs aimed at developing the student's professional abilities, as well as the possibility of strengthening the formation of linguistic and literary competence as prerequisites for forming communication skills. In general, the issue of forming the communication component should be carried out on the basis of conducting group projects and discussions during seminars and practical classes. Due to the high workload, modern higher educational institutions use several digital technologies to improve the organization of the educational process. The introduction of such innovative technologies makes it possible to enhance the development of the educational environment due to the efficiency of connecting students from any part of the world. In particular, it becomes possible for teachers to conduct lectures and special classes regardless of their location. In addition, creating media materials is a widespread practice in modern educational institutions. The use of such tools will serve as an aspect for developing students' professional competence and can improve their cultural, historical and linguistic knowledge.

The issue of grammar and its use both in professional, educational and everyday discourse plays an important role. Therefore, mastering the language, regardless of its classification, has an important role. As a rule, state universities have a program providing a number of advantages for learning the state language. For example, several programs in Poland provide students with benefits when studying a program in the Polish language. In addition, in Germany, it is possible to study the German language for free while taking specialized courses that increase proficiency. Despite the popularization of one's language component, the availability of such tools for developing one's cultural component should take into account a multicultural environment. Therefore, teaching is quite often accompanied by a possible choice in English. Using such practices creates the fundamentals for improving the quality of learning English as the most popular language in the modern world, since most scientific materials and analytical studies are conducted precisely using this language. Thus, the issue of strengthening

the communicative educational field should be carried out and based on developing this language group. In addition, the issue of strengthening the terminological component and the possibility of its improvement in accordance with the needs of the educational process should be carried out on the basis of modernization and optimization of the educational program.

The cultural component is a prerequisite for developing the linguistic and literary educational field; however, it is necessary to ensure the personnel potential for quality provision. As a rule, teaching staff training is conducted according to special state programs at higher educational institutions. The demand for scientists in developed countries constantly remains at a high level due to strengthening the development of innovative technologies and the possibility of applying the cultural environment in this direction. It refers to the digitization of culture, as well as its partial digitization. In particular, quite popular projects are the digital transformation of literature into a media format, with the aim of further popularizing it on the international market. Using such a tendency is important for most of the world's developed countries, since strengthening their own cultural component will be of strategic importance. In addition, it is necessary to take into account the global tendencies in the world to strengthen digital technologies and the quality of use in accordance with the internal characteristics of the educational space.

The linguistic and literary educational branch includes a complex of disciplines and sciences aimed at improving the students' educational competence, the development of the ethical and cultural component, directly affecting the communication component. The application and development of structural elements of the linguistic and literary educational field will be of great importance for the modern scientific environment, since their strengthening can ensure the further development of human capital and solve the migration problem by increasing the cultural level within the country. The key elements of the linguistic and literary educational field are reflected in Figure 1.
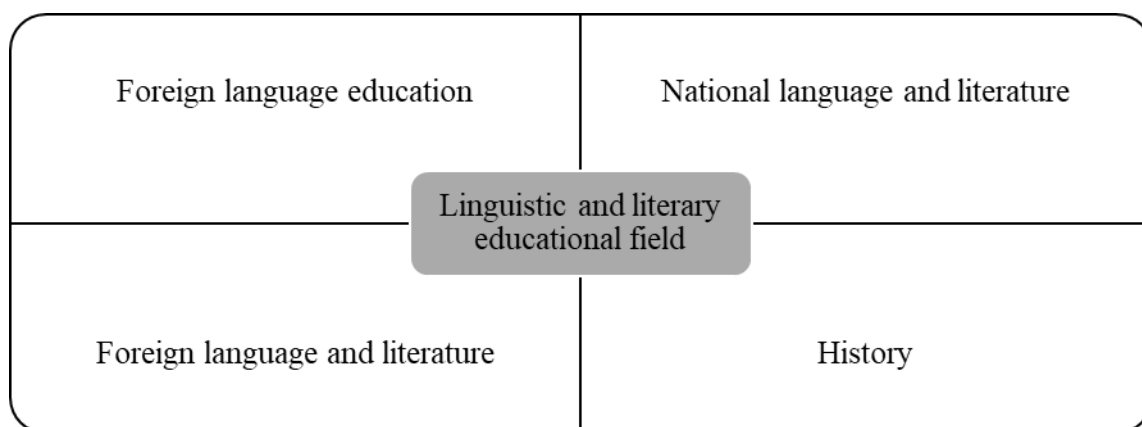

Figure 1 The key elements of the linguistic and literary educational field. Source: compiled by the author.

The specified components of the linguistic and literary educational field indicate that improving the quality of teaching these disciplines will be of great importance for the state demographic policy. In addition, the quality of their teaching and the number of hours allocated to each of these groups will be significant for forming the communicative component of the education sphere. The concept of the communicative educational field implies the ability to conduct a number of communications with representatives of foreign cultures, develop grammatical and vocabulary skills of students and pupils of modern educational institutions. The use of key disciplines directly affects the formation of students' language competencies. Studying a foreign language and literature expands the students' vocabulary, introduces them to foreign culture and can improve the empirical perception of foreign culture. The issue of history played an important role in the formation of analytical thinking, since most history lessons have a direct impact on developing modern events. The formation of national and patriotic education also plays a significant role for the state. Following the example of Ukraine, most educational institutions pay attention to mastering the Ukrainian language and literature; therefore, using such a principle will have a positive effect on forming the cultural component. In addition, strengthening the role of literature in applied professional activity will be of great importance for the development of one's educational potential.

The concept of language potential and its application is investigated in terms of using cognitive intelligence skills, the ability to achieve a communication goal, maintain a specialized discourse and use it in variable social environments. As a rule, the development of linguistic and literary education strengthens the formation of both household and professional discourse, since the use of which can improve a specifically studied discipline's competence, and serve as a factor in the modern development of the educational process. Using digital technologies in education can provide accessibility to most basic materials, as well as ensure the effectiveness of teaching activities. After all, it is possible to reveal the perception level of the material and its use in accordance with the existing curriculum through the direct communication of the teacher with his students.

It is worth paying attention to the issue of state participation in the formation of the curriculum and its implementation in accordance with the universities' key needs and the field of education. In general, the effectiveness of compiling the

curriculum by the state should include mastering materials aimed at developing a student's or pupil's applied skills, as well as forming an individual with high cultural and ethical development. In this regard, it is necessary to take into account such disciplines as national literature, as well as familiarization with the classics of foreign literature. Using such principles will contribute to expanding the student's worldview and can improve his worldview in the conditions of today's unstable environment. Improving the quality of foreign language teaching makes it possible to act professionally in a global space, which in the conditions of developing digital technologies can be a factor in the competitiveness of a future employee. In addition, strengthening the role of using digital technologies should be introduced into the educational process at the initiative of the state. Funding of educational institutions constitutes an important strategic policy for ensuring the educational potential of human capital, improving its communication ability and cultural factor.

Using interactive technologies aimed at developing cognitive abilities and emotional intelligence is an important means of the modern educational process. As a rule, traditional teaching methods do not pay enough attention to the ability to conduct communications and opportunities to exchange cultural experiences, negatively affecting the formation of the student's future personality. Therefore, improving the ability to achieve the communication goal should be carried out and controlled by the teacher. The application of interactive technologies can improve this factor and be implemented in any educational process in order to achieve an effective level of communication education, the main prerequisite of which is developing the linguistic and literary educational field. Mastering a foreign language can also improve understanding the cultural component. Conducting student exchanges in developed countries is a widespread practice that serves as a factor in the exchange of intellectual capital for developed countries and the possibility of obtaining competitive advantages in the scientific environment.

In particular, using digital technologies in the educational environment is based on introducing online platform technologies, holding several conferences and other scientific events that can strengthen the role and quality of the educational environment. The formation of an effective approach to organizing such fundamentals can be the main mechanism influencing the students' educational potential and provide them with the basic abilities to learn new material and use it in their own professional activities.

The issue of using variable teaching methods and forming the communicative field based on developing the linguistic and literary educational field is an important tendency in modern educational policy. Therefore, in order to ensure an effective development process, it is necessary to use tools that can strengthen the components of this process and the format of the implementation in general. The key means used in forming the system of the commutative linguistic and literary field are shown in Table 1.

Table 1 Ways of development of the linguistic and literary educational field in the system of forming the communicative field.

Means	Features
Modernization of the curriculum	Formation of an effective curriculum for the development of the communication component and the ability to master educational material
Use of interactive technologies	Introduction of a number of technologies into the educational process, used to improve the effectiveness of its organization and assimilation of new knowledge
Implementation of distance education	The possibility of strengthening the quality of the educational process in conditions of instability of the global social environment
National and patriotic education	Using to strengthen national education and formation of patriotic youth
Group projects	Group projects make it possible to strengthen the quality of the communication component
Carrying out cultural recreational activity	Development of communicative principles on the basis of vocabulary enrichment and strengthening of cultural development
Development of the communicative component	Emphasis on mastering foreign language and literature, as well as the possibilities of their use in the everyday environment

Source: compiled by the author.

Based on the measures outlined in Table 1, it can be argued that modern educational practices involve the use of various means aimed at enhancing the communicative component and its implementation in accordance with the general needs of the educational environment. Additionally, the utilization of digital technologies allows for the verification of the learning process in a global environment, increasing the relevance of employing the communicative educational field. The study of literature provides historical experience and fosters students' analytical thinking; therefore, the curriculum design must consider this discipline as one of the most prioritized means for strengthening the quality of the communicative component. The practices of European Union countries demonstrate that the educational program should be well-balanced, and the development of communicative skills should commence in schools, where attention is given to acquiring foreign languages, literature, and culture. Implementing such practices influences the ability to analyze information, utilize it according to one's educational objectives, as well as synthesize and draw conclusions.

A communication channel is a channel for transmitting certain information from one subject to another subject relative to a specified object (Figure 2).
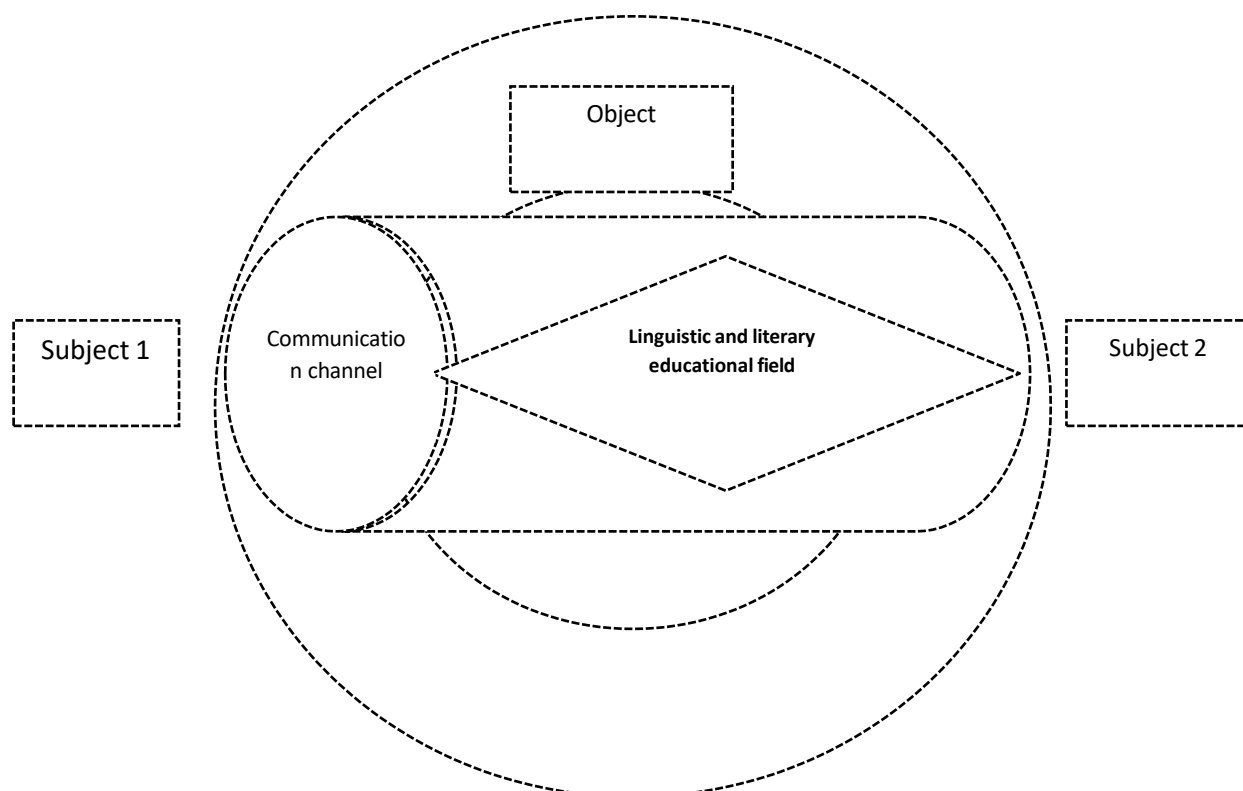
Figure 2 The relationship of the linguistic and literary educational field in the system of communication. *Source: compiled by the author.*

Therefore, it can be concluded that the linguistic and literary educational field plays a significant role in the formation of the communicative field, as its utilization strengthens the cultural and ethical potential of students and young learners. To improve the modern practice of developing these principles, it is necessary to enhance not only the quality of educational programs but also pay attention to the preparation of pedagogical staff, which is crucial for achieving educational outcomes and improving the teaching quality of specialized disciplines. The organization of the learning process should be carried out considering contemporary education trends, with a focus on globalization and digitization, as this will be essential for fostering high-level communicative abilities and professional skills in students.

5. Discussion

The conducted research on the linguistic and literary field in the system of forming the communicative field leaves several open issues regarding the specifics of development and the creation of mechanisms to ensure the improvement of the effectiveness of student learning and the possibility of forming a cultural component. The search for means to improve the ethical and cultural basis can be a factor for further analytical studies directly affecting the ability to apply special means used by educational institutions for the possibility of developing their own human capital (Hussein 2015). In the conditions of developing digital technologies, the use of digital technologies is gaining importance, which can improve the efficiency of implementing the educational process and provide access to educational materials for students wishing to master various disciplines (Batarchuk 2019). The use of such principles will serve as a factor in improving the quality of the communication component, as it enables communication in an online format. Therefore, it is important to conduct further studies on the quality of the impact of digital technologies on this process and possible means to improve it (Tang et al 2020). The issue of digital education also serves as a factor in developing competitiveness, since there is a need to provide an effective educational environment and the possibility of strengthening the role of introducing such technologies.

In addition, an important direction for further research can be the state policy aimed at modernizing and optimizing the curriculum of the linguistic and literary educational field, in accordance with the implementation of the key strategic goals of developing human capital. Taking into account the trend of strengthening the communication component (Keshtova et al 2019), which makes it possible to change economic activity to the global space, the need for forming future human capital with the ability to use a foreign language and strengthen its cultural component is of great importance. Conducting analytical investigations on the means of introducing such a public policy and the possibility of implementation in most educational institutions will be of great importance for the state. Thus, the introduction of such components can help develop the ethical and cultural component of students and improve their ability to function in a global environment. In addition, modernization of the educational program is a constant topical problem due to the rapid development of technologies and the emergence of

new information. The importance of monitoring and controlling the appearance of such information should be carried out on the basis of public administration and used by primary institutions in order to improve the linguistic and literary educational field in the context of ensuring the development of the communication field.

The provision and use of pedagogical development of the personnel remains a significant factor, since this issue is of acute importance in strengthening the scientific environment (Tareva and Tarev 2018). Improving the quality of qualifications, searching for methods and means of teaching activity will be a means of developing human capital, as well as spreading the formation of the communicative educational branch. The implementation of interactive technologies in educational practice, the use of group projects, and the spread of digital technologies will be a means of developing key tools aimed at developing students' linguistic and cultural competencies. Therefore, a significant direction of further research should be the analysis of the features of teaching activity and conducting research on the methodology of organizing the educational process. In the conditions of the modern development of digital technologies, there are a number of platforms and special infrastructure that can improve the educational process in the context of providing a communicative component.

6. Conclusion

The research has explored the linguistic and literary educational field within the broader context of communicative field formation. The study has analyzed the features, principles, and significance of this field in shaping students' communicative abilities. The findings highlight that the linguistic and literary educational field plays a crucial role in the formation of the communicative field, contributing to the strengthening of students' cultural and ethical potential. The research emphasizes the importance of incorporating the linguistic and literary components into educational programs, considering them as prioritized means for enhancing the quality of the communicative component. It underscores the need to balance the educational curriculum and start cultivating communicative skills from an early stage, such as in schools, by focusing on foreign language acquisition, literature, and culture. The research findings also indicate that the integration of digital technologies in the educational process can verify and enhance the learning experience in a global environment, making the communicative educational field more relevant and effective. Additionally, the study recognizes the significance of well-prepared pedagogical staff in achieving educational outcomes and improving the teaching quality of specialized disciplines. The research highlights the importance of considering contemporary educational trends, such as globalization and digitization, in the organization of the learning process. By embracing these trends, educational institutions can foster high-level communicative abilities and professional skills in students, enabling them to analyze information, utilize it according to their educational objectives, and synthesize knowledge effectively. The research underscores the pivotal role of the linguistic and literary educational field in the formation of the communicative field. It provides insights into the measures, policies, and practices necessary for enhancing students' communication skills and promoting their cultural development. By improving the linguistic and literary educational field, educational institutions can contribute to the overall advancement of the communicative field and facilitate students' success in the modern world.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Formation of lexical competence in foreign philology (English) students during online education

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Abstract The research aims to examine the implementation of a model for developing lexical competence in distance learning students. It involves surveying educational institutions through the internet to assess their ability to foster lexical competence. The study findings indicate that teachers employ various tools to enhance lexical competence, such as Kahoot! (95.6%), Moodle (95.5%), Duolingo (89.7%), Google Forms (89.6%), Lingohut (89.2%), and Quizlet (84.7%). Moreover, teachers utilize specific exercises to develop lexical competence, including translation of international words into Ukrainian (95.5%), communicative exercises promoting natural speech usage (95.3%), and exercises comparing words with their definitions (89.5%). Regarding lexical competence development in distance learning, teachers employ control tasks, self-checking tasks, test tasks, and project tasks (98.3%), translation of terms (94.1%), use of lexical constructions in communication (93.8%), and exercises for statement correction (92.4%). The study reveals that ICTs have a positive impact on lexical competence development (95.5%), with a small portion (3.3%) expressing uncertainty, and a minority (1.2%) noting certain disadvantages. A model for developing lexical competence in distance learning has been formulated, incorporating clear goals, objectives, and expected outcomes.

Keywords: lexical competence, students, distance learning, educational institutions

1. Introduction

In recent years, the advent of online education has transformed the landscape of learning, offering students the flexibility and accessibility to pursue their academic goals from anywhere in the world. This paradigm shift has not only impacted traditional subjects but has also influenced the field of foreign philology, particularly in the development of lexical competence among English students. Lexical competence, encompassing vocabulary acquisition, word usage, and contextual understanding, plays a fundamental role in language learning and proficiency.

However, the transition from traditional classroom settings to online education has presented both challenges and opportunities in fostering lexical competence among foreign philology students. While online platforms offer a wide array of multimedia resources, interactive exercises, and virtual language immersion experiences, they also introduce unique obstacles such as limited face-to-face interaction, potential distractions, and reduced opportunities for spontaneous oral communication. Thus, it becomes crucial to explore how online education affects the formation of lexical competence and to identify effective strategies that can enhance language acquisition and proficiency.

The purpose of research is to establish the regularity of promoting the implementation of the model of forming lexical competence in students in distance learning by surveying the Internet to determine the ability of educational institutions to form lexical competence in students.

According to the goal, the following tasks are set:
1. To survey students to identify certain signs of lexical competence formation in students in distance learning.
2. Explore the dynamics of lexical competence development among students in distance learning.

2. Literature Review

The modern concept of higher education envisages the organization of the educational process based on developing a set of basic competencies of a general cultural and professional nature that are necessary for students in their respective fields of activity. The main tasks facing students due to modern conditions are to master all types of speech activities and professional communication skills, which are formed based on studying professional vocabulary. These requirements for the student are

caused by the need to educate future specialists in a high level of professional and communicative competence, which is unlikely to occur without mastering professional vocabulary (SevaraBaxodirovna et al 2021).

The main tasks of the foreign language teaching system are the formation and development of communicative competence in students and its components: communicative, intercultural, discursive, linguistic and cultural, lexical, and other types of competencies in the training of a modern specialist. Vocabulary is noted as an important tool for the exchange of information and mutual understanding between communicators in the course of professional activities. Vocabulary in the learning process is not learned productively, but receptively, since students have limited dialogic and communicative capabilities. In the process of oral communication, learning vocabulary contributes to the formation of professionally oriented lexical competence, which lies in developing the ability of students to communicate professionally in a foreign language (Bakirova 2022).

In this regard, mastering vocabulary for use in speech is one of the main tasks of students studying a foreign language in a higher education institution. The applicant for education should pay special attention to the work on vocabulary. The leading role in the process of achieving this goal is played by linguistic and lexical competence, which is based on lexical and grammatical skills since without linguistic and lexical competence, any communication is impossible. Only linguistic and lexical competence ensures an understanding of semantic segments of speech, which are formed following the norms and requirements of the respective foreign language (Sadenova et al 2017). Thus, modern principles of higher education provide for the organization of the educational process based on a set of competencies that are of a general cultural and professional nature and are important in future professional activities (Bakirova 2022).

The relevance of comparative studies in the field of education, science, and culture in the realities of modern trends in the development of education is beyond doubt, as they provide intercultural and interethnic communication. Modern researchers pay special attention to the area and professional training of students based on a competency-based approach. A lot of comparative studies are devoted to the problems of peculiarities of forming lexical competence in students in distance learning, formation of value orientations, positive outlook of society members, etc (Czerkawski, Berti 2020; Savchuk et al 2019).

For this research purpose, the concept of distance learning is defined as "an innovative approach to the provision of education through electronic forms of information that contribute to the improvement of skills, knowledge and other academic achievements of students" (XaymoungNhoun et al. 2012; Babu, Sridevi 2018; Coman et al 2020; Ogar 2021), methods for organizing educational systems (Shirkhani, Vahedi, Arayesh 2016). Distance learning is defined as "an educational process in which all or most of the teaching of the educational process is conducted by a teacher who is remote in space and/or time from students, with the consequence that all or most of the communication in the learning process between teachers and students is carried out using an artificial device". (UNESCO 2002). Other scholars define the term distance learning as the use of modern information and communication technologies (ICT) through computer networks to provide learning materials and educational information to students and teachers (Ozkan, Koseler 2009; Noorulhasan Naveed et al. 2017; Servage 2005; Czerniewicz and Brown 2009).

Practical mastery of foreign professional vocabulary is characterized by the fact that the student can differentiate similar word forms based on informative features. Moreover, he or she can easily correlate the visual image with the semantics, distinguish between synonymous, homonymous, and antonymic phenomena, have the skills of receptive combination and recombination of new and previously learned lexical material, apply word-formation and contextual speculation (Caro and Mendinueta 2017). The main structural components of linguistic competence include grammatical and lexical competence (Din and Ghani 2018). Lexical competence is defined as the ability of the student to establish the contextual meaning of a word, compare the meaning of a word in two languages, understand the structure of the meaning of a word, and establish the national meaning of a word, where this ability of the student "is based on lexical knowledge, skills, the personal and linguistic experience of the individual" (Kosovych and Sokol 2020).

Based on the analysis of the scientific works of Greb M., and Yarema I., it was found that one of the leading determinants of the communicative competence of students is lexical competence. It consists of conscious and motivated mastery of linguistic lexical means and the ability to use them in the process of communication (Greb 2015; Yarema 2012; Horbatiuk et al 2019). I. Yarema understands lexical competence as the ability of an education applicant to use a language dictionary based on the acquired lexical knowledge. Moreover, it is crucial for the student to apply lexical concepts from long-term memory using differentiated expressions, sayings, proverbs, and phraseological units in the process of communication, as well as to constantly support the development of lexical skills at the required level and monitor the lexical content of their speech." (Yarema 2012).

Lexical competence in a foreign language is the linguistic basis of a learner's professional communicative competence, which can be considered as a dynamic unit where the lexical competence of students is formed in the process of their communicative activity. Communicative competence is improved with the development of lexical competence, which indicates that their formation is interrelated (Velasco 2007).

Professional lexical competence expresses the ability of students to use appropriate vocabulary, which in the course of the educational process contributes to the formation of relevant skills. The language experience of the students is gained in differentiated situations that are interrelated to their future professional activities (Sosyal et al 2014). The lexical component, as a linguistic part of communicative competence, includes the knowledge, skills, and competencies that a student needs to

form an appropriate model of understanding and style of speech in a foreign language that meets the relevant goals and situations of professional communication. This, in turn, requires mastery of the basic concepts of linguistics (methods, types, ways of connecting sentences in a text, etc.), skills and abilities of text analysis, and communicative skills, i.e. knowledge of how to apply them correctly in different areas and differentiated situations (Bakirova 2022).

To develop lexical skills, students must learn to identify strong paradigmatic associations of words, because these connections increase the strength of memorization and, therefore, the immediate recall of words from long-term memory, whereas without this skill, combining words in syntagmatic relations may be useless. Ensuring that the learned vocabulary is constantly updated and rotated as much as possible by students is the main factor that accelerates the increase in semantic fields. The enrichment of the active vocabulary of the student should be carried out not through the mechanical introduction of new vocabulary but through the creative use of already learned vocabulary in new contexts (Bashkir et al 2021).

The formation of professionally oriented lexical competence of the student will be much more effective when the student will consider the correlation between the form and meaning of the lexical unit in the native and foreign languages and the possible interference of the word under study. The following groups of words are best, easier, and more intensively learned by the student: international and borrowed words, the meaning of which is the same in both languages; derivatives and compound words, the structural components of which are familiar to students; root words, the range of meanings of which in the two languages does not contradict each other (Kiliçkaya, Krajka 2010; Abusa'aleek 2015).

Professional communication is characterized by the presence of specific vocabulary used by specialists in the relevant field of activity. Special vocabulary is a combination of words and phrases that name objects and concepts that are interrelated with differentiated areas of activity of a person and are marked as not commonly used. The systematic mastery of professionally oriented vocabulary by the student consists of the use of a set of non-communicative and conditionally communicative exercises to improve reading, speaking, and writing skills in the professional field (Díaz Frías 2014; Rasuoli, Jafari 2016).

Thus, the formation of lexical competence in students in distance learning involves mastering the meanings of a lexical unit, its spelling, and pronunciation, knowledge of grammatical forms of words, synonyms, homonyms, and antonyms, and mastering the rules of compatibility with other lexical units. An integral part of the formation of students' lexical competence is exercises used at all stages of the formation and improvement of students' lexical skills. To ensure the organization of the educational process, it is necessary to systematically perform exercises by students, most of which they should perform independently at a convenient pace and at a convenient time. This will affect the effective process of forming lexical competence in students (Kosovych, Sokol 2020; Demenchuk 2018).

Thus, the problem of forming lexical competence in students in distance learning and the study of obstacles to the formation of lexical competence in students is insignificantly reflected in scientific publications in the form of theoretical research and practical studies. However, the issue of promoting the implementation of professional training and the formation of lexical competence in students in distance learning at educational institutions remains relevant and open for further research.

3. Method

The article uses such methods as:

1. Systematic and logical analysis: This method was employed to develop a model for the formation of lexical competence in students during distance learning. It involved a comprehensive and structured examination of relevant information to establish a coherent framework.

2. Method of information synthesis: This method was utilized to determine the dynamics of lexical competence formation in students engaged in distance learning. It involved synthesizing and summarizing the latest scientific publications related to the analysis of methods, tools, and techniques used for studying trends in the use of information and communication technology (ICT) to develop lexical competence in students.

3. Method of comparison: This method was applied to distinguish between the outcomes achieved and the process of forming lexical competence in students during distance learning. It involved contrasting and examining different aspects to gain insights into the effectiveness of the educational approach.

To investigate the specific features of lexical competence formation in distance learning students, a survey was conducted using descriptive statistics. The survey was administered through MS Forms Pro and aimed to assess students' perceptions of educational institutions' ability to develop lexical competence in the distance learning context. It was conducted online from September 24 2022, to January 29 2023, with a sample size of 2,500 students enrolled at Kyiv National Linguistic University (KNLU), Kyiv Slavonic University (KSU), Ivan Franko National University of Lviv (LNU), Oles Honchar Dnipro National University (DNU), and the National University of Kyiv-Mohyla Academy (NaUKMA).

Participants were asked questions about their learning experiences, motivations, expectations, and overall satisfaction with the competency-based approach to developing lexical competence. The survey aimed to address the following research questions:

 – What ICT tools do teachers utilize to develop students' lexical competence during distance learning?

— What types of exercises are used to enhance students' lexical competence in the distance learning context?

— What specific tasks do teachers assign to facilitate the formation of lexical competence in students during distance learning?

By analyzing the collected data and responses to these research questions, the study aims to gain valuable insights into the methods, tools, and techniques employed in distance learning to foster lexical competence among students.

4. Results

In 2022, a survey was conducted among students from Kyiv National Linguistic University (KNLU), Kyiv Slavonic University (KSU), Ivan Franko National University of Lviv (LNU), Oles Honchar Dnipro National University (DNU), and the National University of Kyiv-Mohyla Academy (NaUKMA) to analyze the use of information and communication technologies (ICTs) for developing lexical competence in distance learning. The students were asked the question, "What ICTs are used to develop lexical competence in students in distance learning?"

According to the survey results, the students from these educational institutions reported the following ICT tools as the most commonly used: Kahoot! (95.6%), Moodle (95.5%), Duolingo (89.7%), Google Forms (89.6%), Lingohut (89.2%), and Quizlet (84.7%) (Figure 1). These findings provide insights into the specific ICT platforms utilized by students to enhance their lexical competence during distance learning.

Figure 1 What ICTs are used to develop lexical competence in students in distance learning. *Source*: Compiled by the authors.

When creating exercises for students engaged in distance learning, teachers should take into account four stages for developing students' lexical competence (Figure 2). The survey results revealed the exercises utilized by teachers to foster lexical competence in distance learning students, including:

- Translation of international words into Ukrainian (95.5%)
- Communicative exercises focused on applying learned lexical material in speech, simulating natural communication (95.3%)
- Exercises involving the comparison of words with their definitions in Ukrainian or foreign languages (89.5%).

These findings highlight the specific exercises employed by teachers to promote the development of lexical competence among students participating in distance learning.

Notes: Stage 1. – Mastering the word at the paradigmatic level to form a sound, motor, and graphic image of the word based on listening exercises; Stage 2. – Forming the meaning of the word at the syntagmatic level to establish the connections in which the word can intervene (building phrases with the studied lexical items); Stage 3. – Developing the meaning of the word at the syntactic level by making sentences with the corresponding phrases; Stage 4. – Ability to choose the best meaning depending on the communication situation and the ability to match the context to this meaning while listening and speaking.
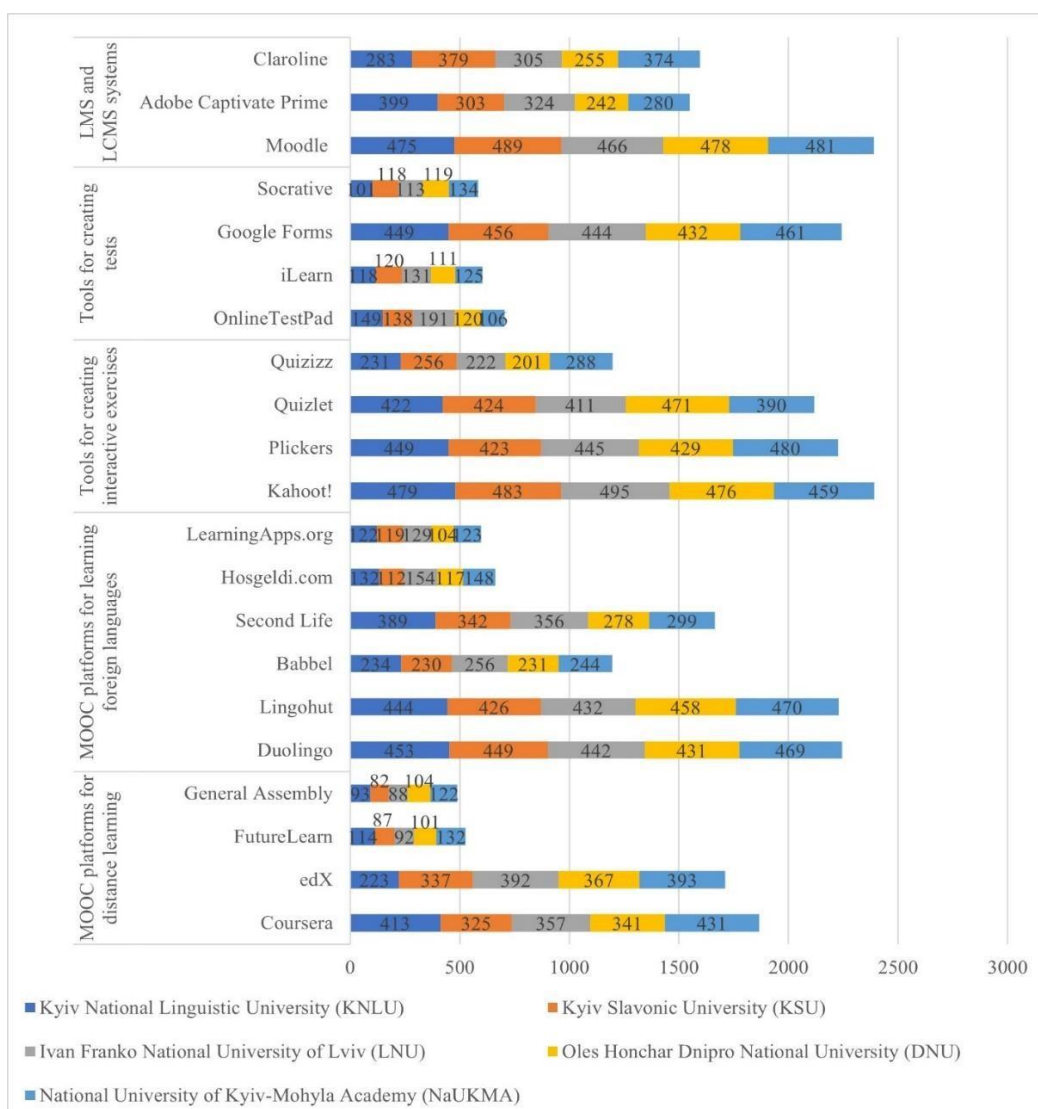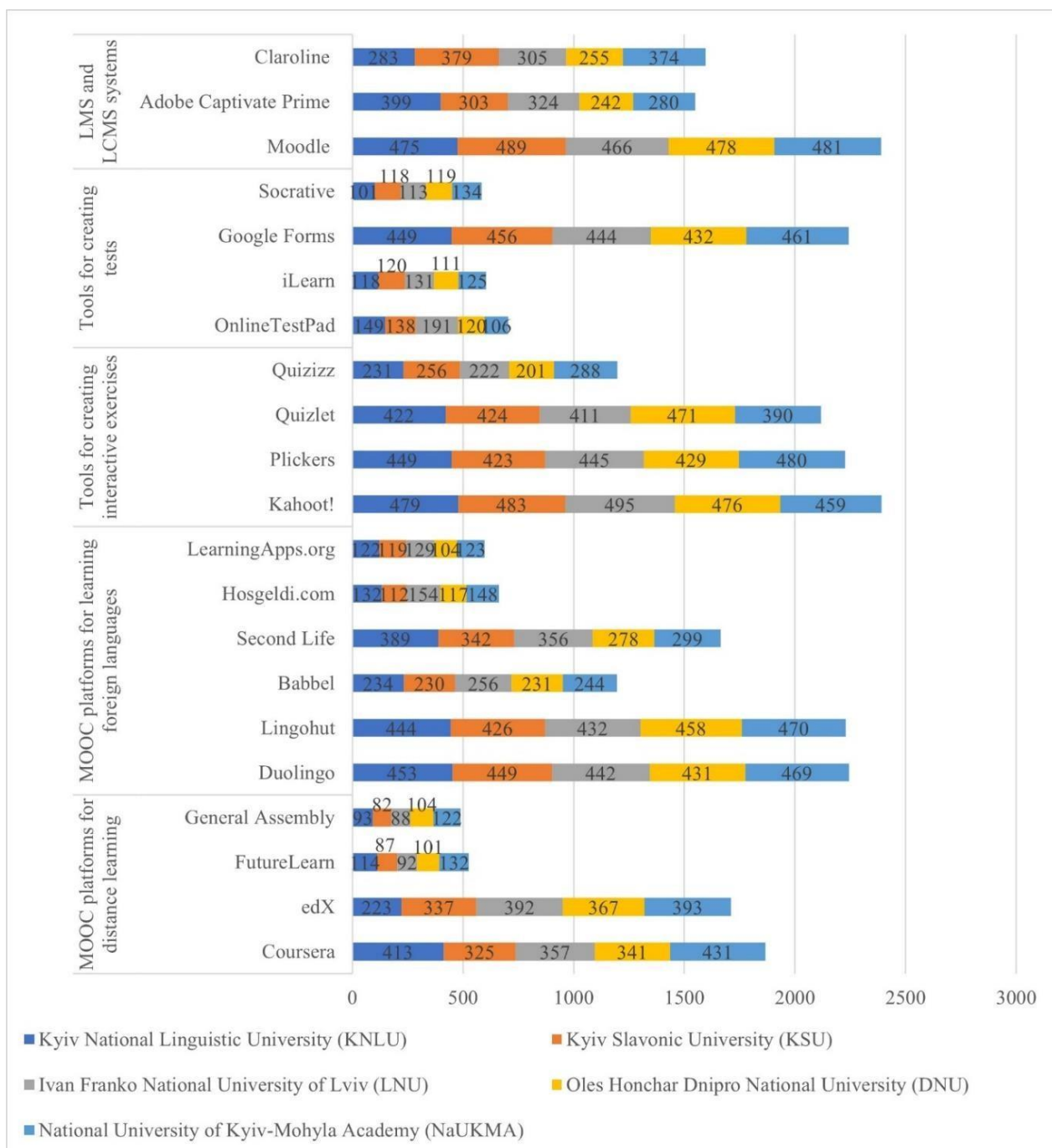

Figure 2 What exercises are used to develop lexical competence in students during distance learning. *Source*: Compiled by the authors.

As part of the development of students' lexical competence in distance learning, teachers use the following types of tasks for students' remote processing of differentiated learning material: control tasks, self-check tasks, test tasks, and project tasks (98.3%), translation of terms (94.1%), use of lexical constructions in communication (93.8%), exercises to correct statements (92.4%) (Figure 3).
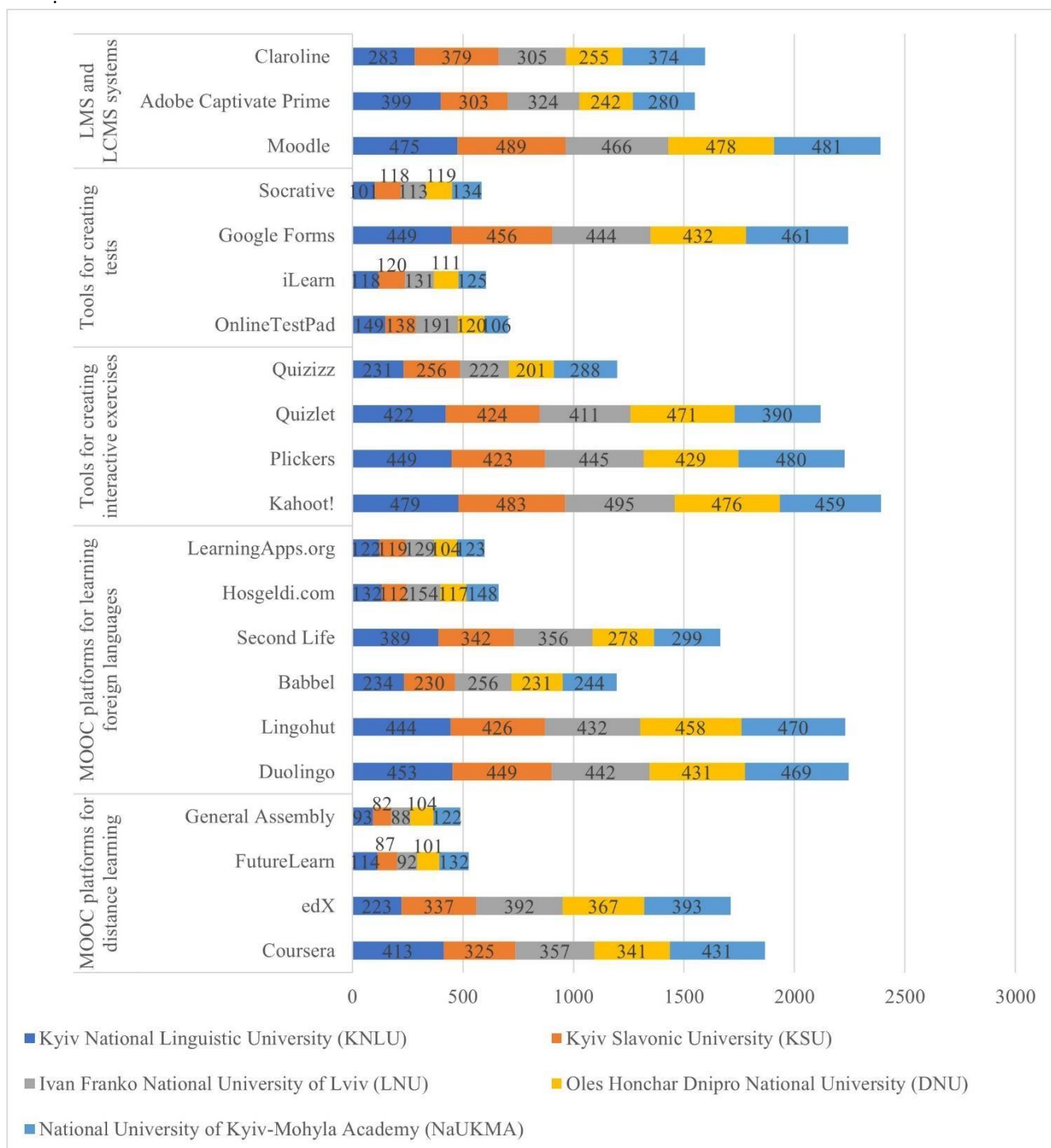
Figure 3 What tasks do teachers use to develop students' lexical competence in distance learning. *Source*: Compiled by the authors.

To assess the effectiveness of ICTs for the development of lexical competence in distance learning in 2022, a significant number of students noted that ICTs have a positive impact on the development of lexical competence in students (95.5%). A smaller number (3.3%) were not sure of the positive impact of ICTs on the development of lexical competence in students, and the remaining respondents noted that ICTs for the development of lexical competence in students have certain disadvantages (1.2%) (Figure 4).

Figure 4 Analysis of trends in the use of ICTs for the formation of lexical competence in students in 2022. *Source*: Compiled by the authors.

Based on the analysis of the conditions for the formation of lexical competence in students, we have developed a model to ensure the effective formation of lexical competence in students in distance learning. It provides for the definition of the goal, objectives, and predicted result and consists of the following components: conceptual and target (goal and stages of ensuring the formation of lexical competence in students), content (principles of foreign language teaching), technological (methods, techniques, forms, and means of teaching) and evaluation and result (evaluation criteria and levels of learning achievements) (Figure 5).
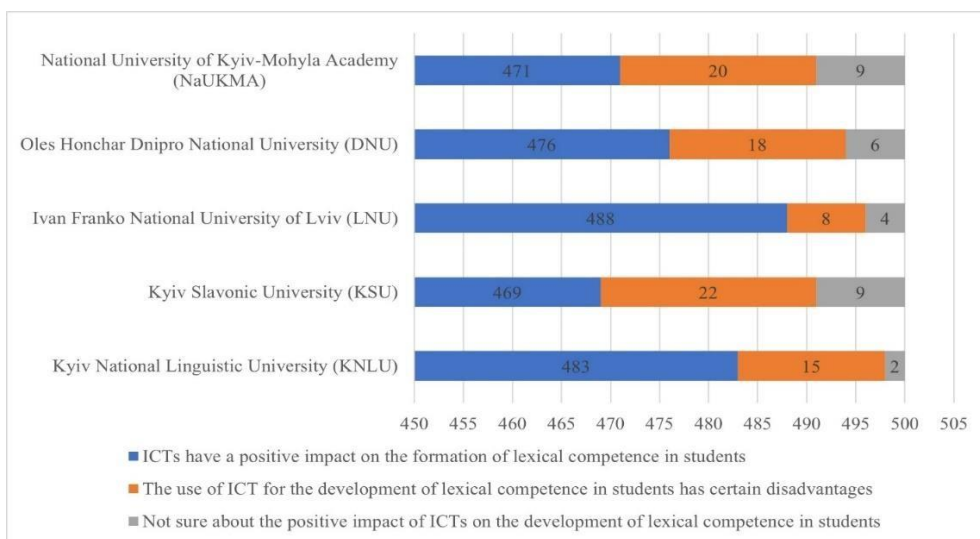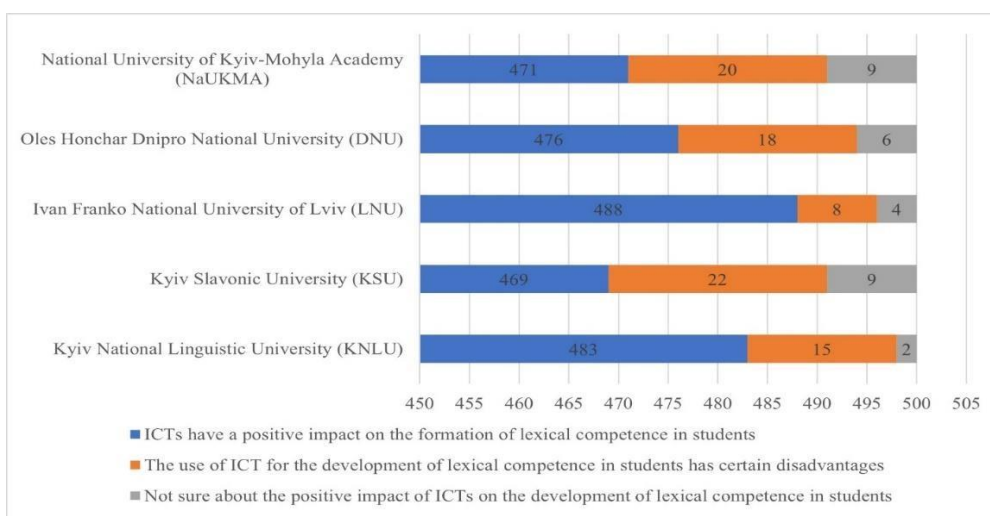

Figure 5 A model for the formation of lexical competence in students in distance learning. *Source*: Compiled by the authors.

In order to assess the effectiveness of the proposed system for developing lexical competence, specific tasks were created to evaluate the level of lexical competence among distance learning students based on specific criteria. These criteria include linguistic and normative aspects, cognitive and activity-related factors, behavioral and attitudinal indicators, as well as motivational and value-based elements. These tasks are designed to provide a comprehensive evaluation of students' lexical competence across multiple dimensions.

The dynamics of lexical competence formation among students engaged in distance learning are visually presented in Figure 6. This graphical representation illustrates the progression and changes in students' lexical competence over time. It allows for a clear understanding of how students' skills and knowledge in the domain of lexical competence evolve throughout the duration of their distance learning experience.

By employing the developed tasks and analyzing the dynamics showcased in Figure 6, researchers and educators can gain valuable insights into the effectiveness of the proposed system for fostering lexical competence in distance learning students. These insights can inform future refinements and improvements in the system, ultimately enhancing the overall quality of lexical competence development in the context of distance education.To establish the effectiveness of the proposed system of work, tasks were developed to determine the level of lexical competence of students in distance learning according

to certain criteria: linguistic and normative, cognitive and activity, behavioral and attitude, motivational and value. The dynamics of the formation of lexical competence in distance education students are shown in Figure 6.
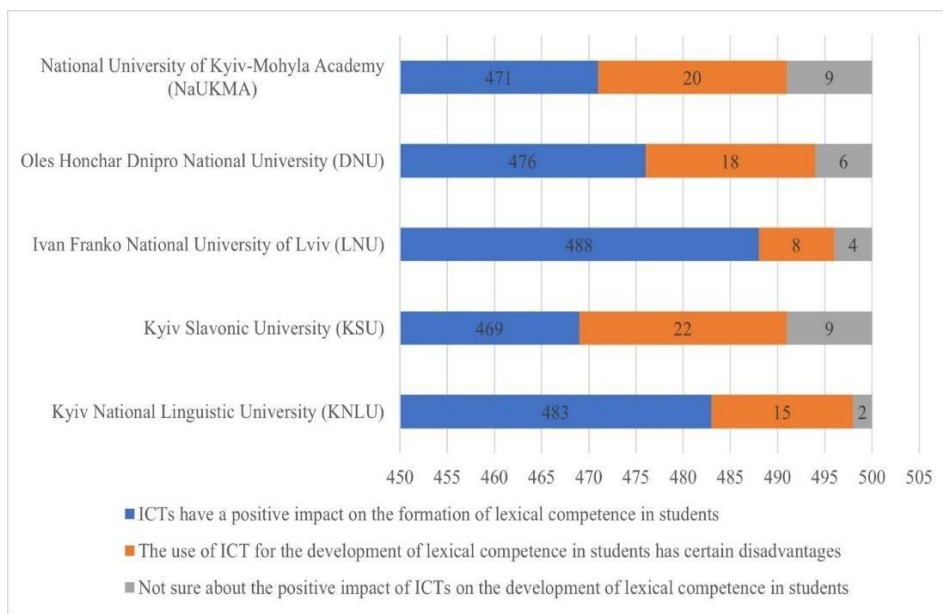
Figure 6 The dynamics of lexical competence formation in students in distance learning. *Source*: Compiled by the authors.

Figure 7 presents the outcomes of the lexical competence formation process among students participating in distance learning. This visual representation provides a detailed overview of the results achieved by students in terms of their lexical competence development.

The figure showcases various indicators and metrics that reflect the level of lexical competence attained by the students. These may include measures such as vocabulary size, accuracy in word usage, comprehension of lexical nuances, and ability to apply lexical knowledge in practical contexts. The results depicted in Figure 7 provide a comprehensive picture of the students' overall proficiency and progress in terms of lexical competence.
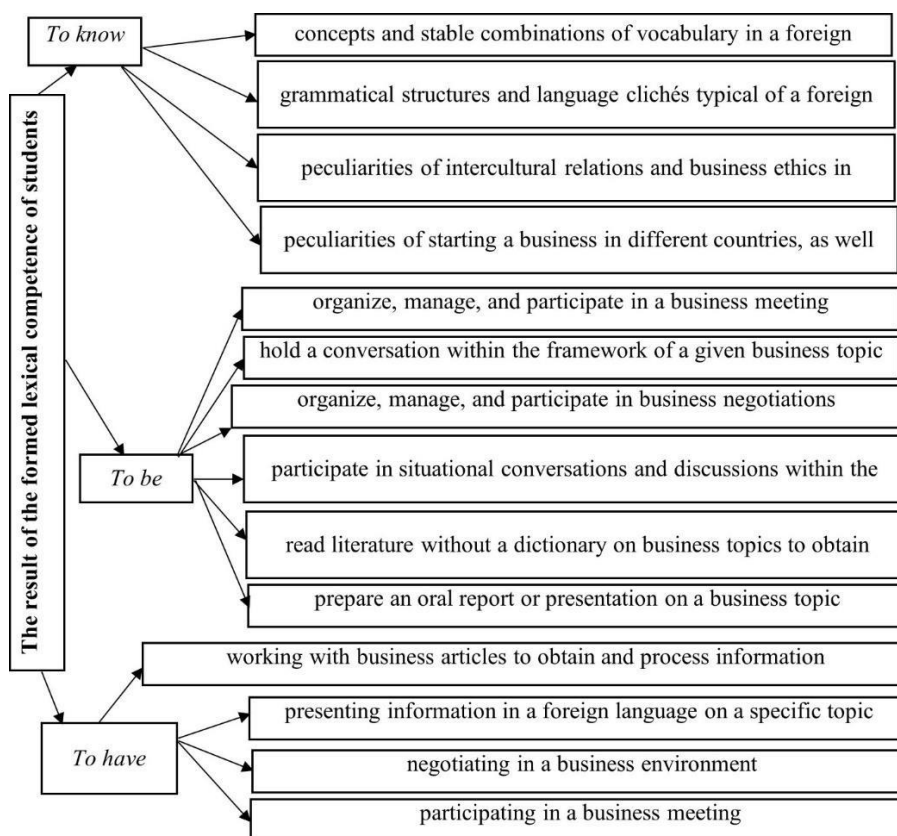

Figure 7 The result of the formation of lexical competence in students in distance learning. *Source*: Compiled by the authors.

4. Discussion

The results of the study of the formation of lexical competence in students in distance learning led to the following conclusions. Today, the educational process requires a combination of differentiated approaches to make learning effective and fruitful.

Firstly, studies reveal many advantages of distance learning, such as better results in information assimilation, an adaptation of the educational process to the needs of students, flexibility, student-centeredness, and elimination of barriers to independent learning of a foreign language (Babu Sridevi 2018).

Secondly, the survey has proven that the quality of the educational process in distance learning will ensure the formation of lexical competence in students. This will be possible if teachers use exercises to translate international words into Ukrainian; communicative exercises aimed at using the lexical material studied in speech and close to the natural process of communication; exercises to compare words with their definitions in Ukrainian or a foreign language, etc (Coman et al 2020).

The use of differentiated methods, tools, and techniques and their inclusion in the model of forming lexical competence in students in distance learning improves the quality of teaching material and increases the success of students, increases their motivation for learning activities, creates conditions for better interaction between the teacher and students (Czerkawski and Berti 2020, Savchuk et al 2019). According to the developed model of forming lexical competence in students in distance learning, the purpose and tasks of the formative stage were determined, which ensured the effective implementation of this model. Each of the stages - motivational and goal-oriented, activity-constructive and generalizing-reflective - contributed to the sustainable motivation and formation of lexical competence in students (Ogar 2021).

Thus, in the process of forming lexical competence in students in distance learning, teachers and students will face differentiated problems following changes in educational requirements for students. An in-depth study will lead to increased attention to improving the competency-based approach to the formation of lexical competence in students.

5. Conclusions

The analysis of the system for developing lexical competence in students engaged in distance learning has revealed the presence of several challenges that require specialized methodologies and research methods. The findings highlight the significance of the model for developing lexical competence in the distance learning environment, which emphasizes the active role of students as equal participants in the educational process.

The model aims to enhance students' lexical competence by focusing on various aspects such as intensive intellectual engagement, practical use of the target language in communication, enhancement of creative skills, and more. It has been established that the development of lexical competence in students relies on factors like motivation, reflective thinking, active engagement with vocabulary, possessing an adequate lexicon, and effective utilization of professional terminology. An essential element of students' lexical competence is the acquisition of lexical skills necessary for communication and proficient use of vocabulary across different types of speech activities.

The practical significance of this study lies in the application of the conclusions and recommendations in the process of fostering lexical competence in distance learning students. Additionally, it is important to consider the widespread adoption of competency-based approaches when designing new curriculum standards. Promising avenues for future research in this field include exploring foreign best practices in developing lexical competence in distance learning students. Further studies can focus on improving curricula by incorporating innovative methods aligned with competency-based approaches. This will invigorate the educational domain and enhance teaching practices in the realm of educational information technology, specifically for the development of lexical competence in students engaged in distance learning.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Education in the conditions of war: advantages and disadvantages
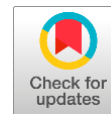
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Abstract The research aims to study the peculiarities of education in wartime. Despite many challenges that have arisen as a result of Russian aggression against Ukraine, the modern higher education system has development opportunities. The first of these is international academic mobility, which provides opportunities for teachers and students to attend leading European universities. The second is the intensive introduction of information technology into the educational process and the professionalization of teachers. The third is the use of flexible learning technologies, and the fourth is a cooperation between Ukrainian and foreign higher education institutions. The fifth possibility is the introduction of the "lifelong learning" model, and the sixth is distance learning, which can be a full-fledged form of education in some specialties. For students, this form of education allows them to study and gain practical experience at the same time, and for teachers to work in education and other fields, passing on practical experience to students. The seventh possibility is to improve the territorial organization of higher education in Ukraine, in particular, to relocate higher education institutions from areas where active hostilities are taking place to large cities. Improving the territorial organization of higher education in Ukraine (relocation of higher education institutions to large cities from areas where active hostilities are taking place) is worthy of attention. Finally, the ability to identify hidden problems in the higher education system and work on solving their causes. The key is to identify threats timely and develop mechanisms to mitigate their impact. Each opportunity should be realized to the fullest extent possible. All these points should be considered in the operational plans for the implementation of the Strategy for the Development of Higher Education in Ukraine for 2022-2032. It is concluded that technological influences are used in modern life to achieve various goals, including obtaining confidential information. User training and increased technical protection are the best defenses against social engineering attacks. To reduce the occurrence of social engineering attacks, technical protection is needed to help prevent such attacks.

Keywords: higher education, martial law, state engineering, distance learning, innovation potential, education reforms

1. Introduction

Introduction. During the years of Ukraine's independence, several important reforms have been carried out in the higher education system, aimed at preserving the progressive traditions of the past, as well as at achieving compliance with new social relations and accumulating innovative potential for further development. The most significant changes in higher education occurred after 2014 when the progressive laws of Ukraine's "On Higher Education" (2014) and "On Scientific and Scientific-Technical Activities" (2015) were adopted. However, the war in Ukraine, which began after February 24 2022, has made significant adjustments to this process. Despite its devastating impact on the socio-economic development of Ukraine and its regions, it still opens up access to new opportunities for each sector of the national economy, including education. The war is having a profound effect on the quality of education. Some students started studying online, but due to the lack of electricity, they lost the opportunity to study systematically. Some were forced to leave the country in search of safety and faced a language barrier. Thus, there are many such problems, it is difficult to list every single one of them.

Even if students have the opportunity to continue their education, they may lose motivation or lack the moral resources to study. This can have long-term consequences for their future, such as a lack of qualifications and low educational attainment, which can prevent them from pursuing a career and earning better wages. There may also be a deterioration in mental and physical health and reduced social adaptation. The question of how to reduce the impact of war on children's education is important. To reduce the negative impact of war on children's education, efforts are needed to ensure security and stability in the education system, as well as access to resources and support for children and their families. Additional efforts are also

needed to address inequalities and inadequacies in the education system that may be more pronounced during the war. It is also important to continuously monitor and evaluate the education situation during the war and implement an adapted and accessible education program to ensure that children are maximized in educational opportunities in such difficult circumstances.

The development of innovative and distance learning methods that can be applied in extreme situations can also be a useful solution to improve access to education during war.

It is essential to remember that students living in a war zone not only have to cope with danger and instability but also with psychological and emotional stress.

Students may suffer from trauma, stress, fear, and loss. Psychological assistance and support for children should be provided to help them better adapt to the situation and maintain their mental and emotional well-being. Access to education requires addressing numerous challenges.

First, education in times of war is an important topic that requires cooperation between government agencies, aid organizations, and the international community to maximize educational opportunities and protect children in such difficult circumstances.

Cooperation with local organizations, social workers, and independent experts is needed to ensure adapted and accessible educational opportunities for children.

Secondly, to ensure access to education during war, it is necessary to provide sufficient financial resources, appropriate infrastructure, and equipment.

Thirdly, it is important to remember that education in times of war is not limited to book learning. Students need a variety of educational opportunities that include social and emotional support, cultural activities, and access to media and technology.

Fourth, education should be adapted to the war situation and meet the needs of children to help them adapt to life in difficult conditions in the future.

And most notably, one of the key aspects of education in times of war is ensuring the safety of children and teachers. During the war, schools are often targeted, resulting in loss of life and destruction of equipment. Schools need to be secured to protect the lives of children and teachers and ensure the continuity of the educational process.

 Furthermore, education in the conditions of war should be accessible to all children, regardless of their social status or religious affiliation. War-related migration and unequal access to education can lead to discrimination and exclusion of some children. It is imperative to provide accessible and equal educational opportunities for all children to prevent discrimination and ensure equal chances for all children in the future. This requires cooperation with local organizations, social workers, and independent experts to develop and implement strategies to ensure that education is accessible to all children during the war.

Overall, war has a significant negative impact on education, but with the right efforts and support, it is possible to mitigate these effects and help children in the future.

The research aims to study the peculiarities of training in war conditions.

2. Methods

The study uses general scientific methods, in particular, comparative, analytical, comparative, inductive, deductive, and the method of definitions.

3. Theoretical background

The scientific works of the following authors are devoted to various aspects of the development of education, regional educational systems, the impact of educational innovations on the development of the national and regional economies, as well as the relationship between the development of higher education and the construction of an information society in the state (Leon 2012), (Kesternich et al 2014), (Kapor-Stanulovic 1999), (Justino et al 2013), (González and Bedmar 2012), (Glasgow, and Baer 2011), (Gerardino 2014), (Chamarbagwala and Mor´an 2011), (Cerna 2019), (Cano and Cervantes-Duarte 2016), (Blattman and Annan 2010) and others.

However, despite the significant developments, (Auzina 2002), (Berezivska 2002), (Sazonenko 2000), (Danylova 2006), (Rezvan 2012), (Akbulut-Yuksel 2014), (Akresh and De Walque 2008), (Akresh 2016), (Annan, Blattman, Mazurana, Carlson 2011), (Alfano and Görlach 2019) there are still issues that are particularly acute for scholars and require in-depth research. In particular, this includes identifying and analyzing the challenges and opportunities facing Ukraine's higher education system in wartime. Factors of depression and mental health anxiety in nurses were identified using a quantitative cross-sectional study (Tsaras et al 2018). By applying a comparative analysis, the pregame expected mental state of players in mini-football teams was studied (Popovych et al 2021). Improvement and study of computer modeling based on open and specialized geoinformation systems by students and postgraduates (Iatsyshyn et al 2020). The use of professional qualities of managers in training entrepreneurship and e-commerce (Akimov et al 2021) to prevent creative burnout of public administration employees

(Kryshtanovych et al 2022), and self-regulation of mental states during responsible activities (Popovych et al 2022), and mental burnout based on the determination of the emotional quotient (Popovych et al 2022).

4. Results and discussion

The full-scale invasion of Ukraine by the Russian Federation and the introduction of martial law have made adjustments to virtually all areas of public life, including the higher education system. During martial law, it faced new challenges that have to be addressed to preserve higher education in Ukraine and increase its contribution to the socioeconomic development of the country and its regions. These challenges are as follows:

1. Destruction of the infrastructure of HEIs. Despite the difficult situation in higher education in Ukraine, many HEIs are currently suffering from the devastating effects of the war. The vast majority of universities have faced a territorial "dispersion" of students and staff and have switched to distance or blended learning. The situation is most critical in the universities located in the areas of active hostilities. Students and staff were forced to leave the region. As a result of intense shelling and bombardment, the infrastructure of these higher education institutions suffered varying degrees of damage and destruction.

Furthermore, 34 higher education institutions have been relocated or are in the process of being relocated, including the University of the State Fiscal Service, Luhansk Shevchenko National University, Donbas State Pedagogical University, East Ukrainian Dahl State University, Ukrainian Military Medical Academy, Luhansk National Medical University, Ukrainian Engineering and Pedagogical Academy, and Priazovsky State Technical University. These are mainly institutions from Luhansk, Donetsk, Crimea, Mariupol, Kramatorsk, Sloviansk, Kherson, and Sumy. The conditions in which the relocation was carried out differ for these institutions. However, most of the problems at the new locations are similar. In particular, this includes the need for:

– computer, office, and network equipment to resume educational and scientific processes;
– laboratory equipment in key research areas;
– the creation of scientific bases from leading universities and research centers.

It should be noted that without the creation of targeted funds for reconstruction, the provision of appropriate assistance to ensure the quality of education during and after the war, and the creation of strategic alliances between Ukrainian universities and partner universities for reconstruction and development, the further development of Ukraine's higher education system will be an extremely difficult and time-consuming process.

2. Reduced funding for higher education. Education and science in Ukraine have always been funded on a residual basis. The Law of Ukraine "On Education" provides for funding of the sector in the amount of at least 10% of GDP. It has never managed to reach this level of funding.

Taken together, all of the above may lead to the decline of higher education institutions in these regions and a deterioration in the quality of educational services.

3. Loss of human resources. There is a significant wage gap between the higher education sector and other sectors of the economy. In addition, the salaries of academic staff in higher education institutions in Ukraine are much lower than in leading countries. There is a significant regional differentiation in the remuneration of academic staff in higher education institutions subordinated to the Ministry of Education and Science of Ukraine. The highest average salaries are received by academic staff in higher education institutions in Kyiv, Kharkiv, Poltava, Ivano-Frankivsk, Lviv, and Dnipro regions. In particular, in 2019, the average salary of a research and teaching staff member at the Taras Shevchenko National University of Kyiv was UAH 22,991.56, the Ivan Franko National University of Lviv - UAH 12,360.68, and the Yaroslav Mudryi National Law University (Kharkiv) - UAH 27,716.03.

An interesting pattern is that in the HEIs in the West of Ukraine studied by Focus, the cost of a master's education showed the most intensive growth. For example, a master's degree in software engineering at the Western Ukrainian National University (Ternopil) increased in price by 37.4%. Perhaps this price increase is due to the increased demand created by immigrants from the war-torn areas of Ukraine.

At the same time, the cost of education in the surveyed universities in Kyiv has not changed or increased by only a few percent compared to last year. Therefore, there is a gradual decrease in the difference in the price of education between Kyiv and large regional centers far from the front line.

The cost of education, of course, partly depends on the popularity of the specialty. Traditionally, programming, law, journalism, and other social sciences are the most expensive. For example, at the Taras Shevchenko National University of Kyiv, a master's degree in law costs UAH 61,100, a bachelor's degree in journalism costs UAH 49,200, and a bachelor's degree in archeology costs UAH 31,800.

The situation is similar at Igor Sikorsky Kyiv Polytechnic Institute. While studying for a degree in software engineering costs UAH 45,000, studying for a degree in electronics costs UAH 16,600.

Low wages have led to a decline in the prestige of this type of activity. The conditions of martial law force higher education institutions to optimize the cost of remuneration for academic, research, and teaching staff by:

1) reduction of the number of additional payments for the academic degrees of Doctor of Philosophy and Doctor of Science, for the academic title of associate professor, senior researcher, and professor;

2) forced unpaid leave (in 2022, the annual leave will be 24 days, not 56 days);

3) redistribution of hours in the curriculum between the classroom and independent work;

4) downsizing of the staff. This encourages teachers to leave the profession and move to better-paying jobs or to be employed in foreign universities;

5) the outflow of Ukrainian and foreign students from HEIs. Foreign citizens from more than 150 countries can study in 240 Ukrainian universities and obtain higher education in various specialties. Before the war, Ukraine occupied 1.5% of the global market for foreign students. At the beginning of the 2021/2022 academic year, more than 76 thousand foreigners were enrolled in Ukrainian universities. The main reasons that have contributed to the growth of their number in recent years include the quality of education, tuition fees, recognition of diplomas at home, and the desire to study in one of the European countries.

The article provides enough information to understand how complicated the functioning of Ukraine's higher education system will be under martial law. It is also necessary to respond promptly to the socio-economic challenges of today to preserve and develop the system in the future. The Verkhovna Rada Committee on Education, Science, and Innovation has already outlined some pressing issues in the field of education and science that have arisen in connection with the introduction of martial law in Ukraine. The Ministry of Education and Science of Ukraine has proposed certain solutions to address them. In particular, these problems relate to:

1) audit of the infrastructure of losses;

2) development of a plan to restore educational infrastructure

3) the 2022 admission campaign

4) formation of a state order for training for 2022

5) audit of displaced higher education institutions;

6) adjusting tuition fees for contract students;

7) amendments to the Law of Ukraine "On Higher Education" to extend the term of the temporary staff of the NAQA;

8) studying the issue of establishing corporate higher education institutions and launching relevant pilot projects;

9) admission of foreigners to higher education institutions during the year;

10) creation of conditions for the return to Ukraine of applicants for higher education who went abroad due to the military aggression of the Russian Federation;

11) license conditions.

Unfortunately, they do not address the issue of preserving the country's scientific and pedagogical potential, which is no less important in today's difficult conditions.

Organizing students' education in software engineering requires a comprehensive approach, considering all elements of the well-established manufacturing process. It includes planning, design, development, testing, and software deployment. Additionally, considering the growing prevalence of remote work models in internationally distributed teams, sufficient attention should be given to skills in utilizing relevant development tools, communication, language proficiency, etc.

Ukraine's current political and economic situation favors conducting online classes. Apart from teaching the core subject, this allows for simulating communication and knowledge sharing among software development teams in specific work modes.

This approach has the drawback of the lack of non-verbal communication, which is an essential source of additional information and aids in better assimilation of the learning material. Moreover, live communication enhances interaction among team members, encourages mutual support, and creates a conducive work atmosphere. These are particularly important for young programmers unfamiliar with corporate culture and without life experience.

Therefore, to mitigate the aforementioned drawbacks, the preparation of not only programmers but also IT specialists, in general, should be conducted through a combined approach of remote and classroom sessions as soon as the situation allows.

The following tools are used for both educational and manufacturing processes of software engineering, namely:

– communication tools, including video conferencing programs and collaborative document editing.

– integrated development environments.

– version control systems, including web-based repositories, including public ones.

– code quality control systems.

– programming language processors, dependency managers, and project build systems.

– containerization tools.

With the help of the aforementioned tools, it is possible to organize activities where several students work on the same project simultaneously. Starting development in the classroom, they continue their work at home, implementing functionality needed for the next session and exchanging results online. The project build process is automated and executed within a container, ensuring its functionality in any environment. The verification process can be automated in various aspects:

functionality, code quality, and development speed, utilizing the same elements and practices as real development teams. The educator remains responsible for final checks and evaluations. Along with implementing electronic document management in Higher Education Institutions (HEIs), flexible organization of professional training sessions becomes possible. It depends on the social, political, and economic circumstances, ensuring the continuity of the learning process.

This approach requires sufficient background knowledge in IT, making it unsuitable for students in introductory courses. Most of the mentioned tools exist in free (Open Source) versions. However, their installation, configuration, administration, and development of corresponding guidelines require significant effort, time, and qualifications. Only some things listed above are suitable for teaching basic subjects. Students develop a habit of relying on specific software tools, which is undesirable in terms of preparing a well-rounded specialist. The field's dynamic development necessitates almost yearly revision of the curriculum and the stack of supporting software.

On the other hand, this plan fits harmoniously with practical courses related to the study of object-oriented programming languages, databases, web development frameworks, version control systems, artificial intelligence, or machine learning. It engages students in hands-on projects, significantly improving their grasp of the material. They provide relevant and valuable work experience, including working as part of a team.

Analyzing educational processes in any world-class technical institution, we can observe the implementation of the ideas above to some degree. However, many questions still need to be formulated and addressed before a comprehensive vision can be formed. The overall organization of training in "Software Engineering" requires careful consideration of all elements involved in manufacturing processes. It includes curriculum planning, development of educational materials, precise and comprehensive testing, user account management, etc.

Applying this comprehensive approach guarantees the effective provision of high-quality education for IT specialists.

The concept of state engineering originated in the early 1970s and reflected a system of attacks on telephone operators. Today, engineering methods based on psychological mistakes in human behavior allow you to find out any confidential information and gain control of almost any information system. State engineering allows you to control the personnel of the information and computer system and the information and computer system itself. The entire information and computing system can be divided into several levels of hierarchy: software, which is nested in the hardware level, which in turn is nested in the personnel level. Nested layers are subordinate to meta-levels because the requirements of the meta-level serve as axioms for the nested layers. Thus, the higher the level of attack, the more opportunities to influence the information and computer system. The personnel layer is the highest level for software and hardware. The personnel level itself is included in various types of assurance, such as regulatory assurance, which includes laws and regulations that govern the activities of people. Based on acts or laws, a person performs certain actions. The state engineer influences the level of personnel of the information and computer system, which allows him to successfully level almost all software and hardware protection. The goals of state engineering are simple: to increase trust, collect statistics, and provide access to confidential data. At the same time, the state engineering model has its peculiarities. When we talk about the object of state engineering, we mean a set of personal qualities of people who are the most important carriers of information. The object can also be human qualities, such as loyalty and trust. As for the methods of state engineering, they are aimed at correcting people's behavior so that they act voluntarily and independently in the right direction. Why have state engineering methods become so popular today? State engineering has many advantages, namely simplicity and low risk, no need to use sophisticated technical means, and, most importantly, high efficiency. State engineering is particularly vulnerable because it relies on human error rather than vulnerabilities in software and operating systems. Mistakes made by legitimate users are less predictable, making them more difficult to detect and prevent than malware intrusions.

The analysis shows that the educational activities of most higher education institutions have received a strong impetus for development. However, the situation is complicated by the fact that in recent decades (after the 2000s) the education system has undergone significant changes that have reduced its flexibility and adaptability. On the one hand, the transition to international standards allows for the expansion of graduate employment, but on the other hand, serious financial savings in the higher education system have led to a decline in the quality of training of specialists, the demand for which is not growing at the desired pace. During the war, the situation was complicated by the fact that to maintain a stable student population, the formal approach to the educational process was strengthened by both students and teachers. The International Association of Universities survey analyzed the barriers to development for universities during wartime. The barriers to development for universities during the war include reduced academic mobility, weakened partnerships necessary for the development of new master's programs and new research projects in which master's students can participate, and other problems. According to the research center, despite the negative consequences, the war still provided opportunities and an understanding that in the modern world, it is necessary to be able to bridge the digital divide and learn to withstand various threats. The scientist also believes that narrowing the digital divide can ensure sustainability in the most important sector of human development - education.

The global higher education sector has been radically transformed. The transition to distance learning is only part of this process. Such a complex open system as higher education could not but be affected by the changes taking place in the economy, labor market, logistics, international communications, and other areas. During the military conflict, the main focus

of university management was on solving the following problems: preserving the lives and health of students and staff, maintaining the quality and accessibility of the educational and research process at universities (or fulfilling all three missions of universities - education, research, and support of the social environment), and cutting costs and finding new resources.

5. Conclusions

Despite the challenges faced by the modern higher education system as a result of Russia's aggression against Ukraine, it still has some room for development. First, there are opportunities for international academic mobility for teachers and students at leading European universities. Secondly, there is an intensive introduction of information technologies into the educational process and professional development of teachers. Third, flexible learning technologies can be used. Fourth, cooperation between Ukrainian and foreign higher education institutions is possible. Fifth, the "lifelong learning" model is being implemented. Sixth, distance learning can become a full-fledged form of education for obtaining higher education in some specialties. Seventh, students have the opportunity to study and work simultaneously to gain practical experience, and teachers have the opportunity to work in education and other fields to pass on their practical experience to students. Eighth, it is possible to improve the territorial organization of higher education in Ukraine by relocating higher education institutions to large cities from areas where active hostilities are taking place. Ninth, it is crucial to identify hidden problems in higher education and work to eradicate their causes. The key is to identify threats in time and develop mechanisms to mitigate their impact. Every opportunity should be realized at the maximum level. All these aspects should be addressed in the operational plans for the implementation of the Strategy for the Development of Higher Education in Ukraine for 2022-2032. From all of the above, we can conclude that technological influences are used in modern life to achieve various goals, including obtaining confidential information.

User training and increased technical security are effective measures to detect and respond to social engineering attacks. To reduce the risk of such attacks, it is also important to use technical safeguards. In particular, detecting keywords in emails or phone calls can be useful in preventing potential attacks. However, it should be noted that even these technologies may be ineffective in preventing attacks carried out by skilled state engineers.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

The system of continuous design education in Ukraine in the context of higher education modernization
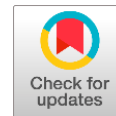
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Abstract Continuous education is characterized by a constantly evolving complex of innovative pedagogical knowledge presented in the context of modernizing higher education in Ukraine. It has determined the relevance of the proposed research. The article aims to establish the effectiveness of introducing a range of educational components of continuous design education into pedagogical courses, perceived as innovations in education, to identify the problems of motivation and integration of the idea of continuous design education into the professional activities of educators. Several planning aspects of education modernization have been identified (attitude of educators towards innovation, anxious use of innovation in design education, external difficulties in introducing innovation in continuous education, innovative pedagogical practices, and readiness for modernization of design education in the higher education space). The study conducted comprehensive research, applying the method of pedagogical experiment. Surveys, observation, and experimental methods were used to diagnose the effectiveness of modernizing design education among educators in this field. The central hypothesis is that continuous courses in design education and self-education activities related to innovations in university education actively contribute to the popularization of continuous education in creative sectors of the national economy and anticipate their integration into the teaching activities of higher education staff. This research proves that programs of continuous training of specialists in design education and educational courses associated with innovation are effective and make it possible to use innovation in their professional practice. Further perspective is to investigate the development of continuous education in the territory of Ukrainian higher education.

Keywords: education modernization, continuous design education, Ukraine, higher education

1. Introduction

Innovative pedagogical knowledge is vital in providing employees with more effective work. Therefore, since the beginning of Ukraine's independence, the government has also focused on developing continuing education and establishing a national design system (Cabinet of Ministers of Ukraine Resolution No. 37 "On Priority Measures for the Development of the National Design and Ergonomics System and the Implementation of Their Achievements in the Industrial Complex, Residential, Production, and Socio-Cultural Spheres" dated January 20, 1997).

In 2018, the Ukrainian government approved and implemented the first (bachelor's) level of higher education standards in the field of knowledge 02 "Culture and Arts" for the specialty 022 "Design" (Ministry of Education Order No. 1391 dated December 13 2018). Professional training of design specialists is constantly being implemented in artistic, technical, and technological educational institutions in Ukraine. University education is no exception, where design education plays an important role (Prusak 2017). It involves continuous development and implementation of nonverbal thinking and communication skills, the ability to solve non-standard problems, and coping with crisis situations (Norman 2016). The function of the continuous design education system in Ukraine is associated with the development of human abilities, creative and innovative skills. A series of educational programs for different levels of education have been developed in the educational space of Ukraine. The subject "Design and Technologies" (New Ukrainian School grades 5-6) is included in the model educational programs. At the higher education level, an elective disciplinary course, "STEM," is also introduced, which involves project activities and the development of competencies necessary to implement design ideas using decorative and applied arts

and design technologies. All this indicates an intention to create a harmonious system of continuous design education for the youth of Ukraine.

Today's international community also pays great attention to ensuring the quality of design education, working on the concept of inclusive and accessible education for everyone. This idea was embodied in the educational program until 2030 (Framework of Education 2030, developed and presented globally in 2015 as 10 goals and effective strategies for further implementation (UNESCO 2015).

It was about the need for socio-economic changes through modernization and a systemic approach to education and innovative educational technologies. It primarily involves implementing continuous changes at all levels of education in response to the situation (Lindblom-Ylänne, et al 2018). It determines the scientific issues of research related to the introduction of continuous design education:

− Studying effective ways of development
− Researching state policy regarding design education
− Modernizing education through the organization of a continuous educational process

The need to develop education has been declared by international organizations (UNESCO 2015). Among the priority areas for improving the system of continuous education is also in the field of design. It also involves introducing new courses designed to master pedagogical innovations in design education, promoting the continuous professional development of educators, and encouraging creativity and the creation of their products (Zhernova 2018).

The introduction of continuous design education requires the teaching staff to use innovative methods constantly. In other words, educators must have adequate knowledge of design and advanced teaching methods in order to use innovations in order to use them in their professional activities (Jayashree 2017).

Continuing design education at the university level aims to train young professionals in demand and competitive labor markets. In addition, continuity provides the ability to adapt to rapidly changing labor market demands due to modern states' technological and social development.

Thus, new demands on the labor market are constantly emerging, new professions are emerging, and the need for others is disappearing. Therefore, organizing a dynamic continuing education system is crucial; it should always be in the state (Oruzha 2018). Further continuous design education must be present in the life of every person. Every Ukrainian citizen should have access to design education and have the opportunity to acquire new skills in different areas, forms, and types of design several times during their lives.

Some researchers explain the effective integration of innovations in design education as a necessity in the conditions set by the 21st century, where one must be prepared to function in civil society, have functional skills, and quickly adapt and master new technologies through knowledge gained in design education, in the field of digital technologies (Partnership for 21st-century learning 2020).

Therefore, an essential task for continuous learning processes in higher education is to support students in obtaining design education through self-organization, support of universities, and improving the quality of university education (Partnership for 21st-century Learning 2020). Furthermore, the continuity of design education is a prerequisite for the ongoing impact on Ukrainian students' personal and professional development throughout their lives.

The study aims to determine the effectiveness of introducing a range of educational components in design education to continuous education courses. Based on this purpose, the following research tasks are planned to be carried out:

− Identify the motivation and integration problems of the idea of continuous design education in the professional activities of teachers;

− Determine the assessment by teachers of innovations in the field of continuous design education and the difficulties associated with it;

− Determine the effectiveness of the main techniques and additional conditions for introducing design education into continuous teacher training courses.

2. Literature Review

Continuous learning is characterized by the necessity of constantly deploying the learning process aimed at generating and structuring new ideas, seeking principles for solving new tasks, analyzing relevant realities, and critically evaluating the results obtained (Loyens et al 2013). Such characteristics make up the prospects for research and the development of methods for implementing continuous design education (Brovchenko 2022).

The proposed research is a sequential introduction of the experience of implementing previous experiments that focused on the problems of developing continuous design education, exhibition activities, informal education as part of design education (Ivanova et al 2020), peculiarities of introducing innovations and modern pedagogical knowledge into practice (Kiki-Papadakis and Chaimala 2016). Similar investigations explore practical algorithms for introducing universal design education technologies into higher education (Puranik 2020), introducing research programs of a non-discriminatory nature, socio-cultural projects for adapting educators to the introduction of innovations, removing psychological and cultural barriers to the

space of continuous education (Boghian 2019); considering the organization and regulation of continuous educational processes at all levels of education (Senthilkumar and Kannappa 2017).

In a series of studies, continuous design education is presented as a series of stages (phases) of self-regulated learning (conception of ideas, formation of a plan, project creation, and project correction). People ready for continuous design education at the higher education level are presented as those who can set their own goals and tasks, take responsibility for learning, and formulate and maintain motivation. Self-regulation as an important part of design education has been studied in many types of research dedicated to the problem of developing cognitive and creative strategies, self-control, and correction of personality's learning strategies (Heikkilä, Lonka, Citation 2012). The self-regulated learning components were identified (Geitz and Geus 2019). The authors determined conditions for the successful implementation of continuous design education from the perspective of successful experience in European countries (Hattie and Donoghue 2016). Also, the means of developing and adapting design education methods in Ukraine were considered (Oruzha 2018).

3.   Materials and Methods

The authors of this research carried out a pedagogical experiment in combination with several research approaches and methods to effectively address the problems of introducing continuous design education in Ukraine. The descriptive method, analysis, and synthesis were used to describe and analyze theoretical research developments, works from pedagogy theory, philosophy, sociology, and others. Auxiliary survey methods (written form) and observation were used to conduct the experiment. The process of introducing continuous courses in design education described in the study was viewed from the observation perspective. Therefore, this method is empirical and cannot directly determine the experience of introducing innovations as a systemic change. The authors used statistical methods to evaluate the results of the experiment.

The experiment involved participants in continuous qualification courses and training for higher education teachers dedicated to design education and related fields (Lviv National Academy of Arts, Kharkiv State Academy of Design and Arts, Ukraine).

The pedagogical experiment method was applied for one academic semester (6 months) in 2021-2022 (October 2021 - March 2022). The experimental method was used to determine how significant the forecasting features are (the concerns of educators and their readiness to introduce innovations in design education, in particular) and how effective the introduction of innovative educational components in design education and innovations regarding courses for the continuous qualification and training of academic workers are.

The experiment involved a total of 28 participants in training courses and internships. The classes are continuous, meaning they involve simultaneous learning and work. 70% of the courses took place online, and 30% of the study time included the organization of workshops, introductory sessions, and final conferences that took place offline at the universities that founded the program (Lviv National Academy of Arts, Kharkiv State Academy of Design and Arts, Ukraine).

All respondents were divided into two groups, two groups in each institution: 2 experimental groups (EG1 - 14 people and EG2 - 14 people). The variable in the experimental group is the implementation of the new course "Innovations in Design Education" into the approved curricula since 2020.

Stage 1. A survey is conducted among the experiment participants to determine the demographic and qualification characteristics of the respondents, participants of the EG1 and EG2 educational groups in the courses participating in the pedagogical experiment. Educational materials and accompanying audio-video content are prepared, a technological base is created to meet the needs of the course, and preliminary consultations are held with the instructors who will teach this course. The research group has obtained consent from the university administrations to conduct the experiment. All respondents were guaranteed privacy and anonymity during the surveys, questionnaires, and systematization of the research results.

Stage 2. At this stage, simultaneously with the teaching of the course "Innovations in Design Education," surveys are conducted in experimental groups regarding characteristics predicting the future content of the course, the respondents' attitudes toward modernization measures in continuous design education, the level of acceptance of such innovations, their evaluations, and the readiness of university instructors to introduce innovations in design education into their own practical activities.

Stage 3. At the final stage, the results of the initial and follow-up surveys regarding the readiness of industry professionals to implement innovative pedagogical knowledge in design education are summarized and analyzed. In addition, the leading positions of the course evaluation and progress monitoring, if any, are presented.

While conducting this study and during the project implementation process, the research team encountered the following difficulties:

− The need for sufficient time investment (1 semester - 6 months);
− The inability to identify reasons for changes in respondents' evaluations;
− The failure to conduct in-depth qualitative research.

3. Results

The experimental groups in the courses considered a range of innovative teaching strategies of modern pedagogy. Design education is a continuation of project-based learning and competency-based education based on its continuous duration, that is, throughout life. The research group added innovative elements to these two concepts, allowing teachers to develop sustainable educational concepts. The learning environment should stimulate and carry out an effective learning process and enable the achievement of stable goals, creating an ambitious learning climate. Overall, such educational policy encourages the development of the creative potential of learners, offers space for talents, and facilitates the process of profiling. Furthermore, the phenomenon of continuous design education in modern conditions promotes the harmonious combination of formal and non-formal/informal forms of learning.

The course "Innovations in Design Education" presents a range of topics related to the principles of continuous education and the consideration of the latest research in the design field and ways to introduce them from a pedagogical perspective. In addition, detailed explanations and examples of each teaching strategy in action are provided. Above all, design education as a continuous process is presented through seven stages of implementation.

The stages of learning and their project implementation shown in Figure 1 have become leading topics for discussion within the "Innovations in Design Education" course as innovative pedagogical knowledge and means of modernizing higher education in Ukraine.

In the initial stage (Stage 1), a survey was conducted regarding the gender and professional characteristics of the respondents. The questionnaire included age, experience, gender, and educational level.
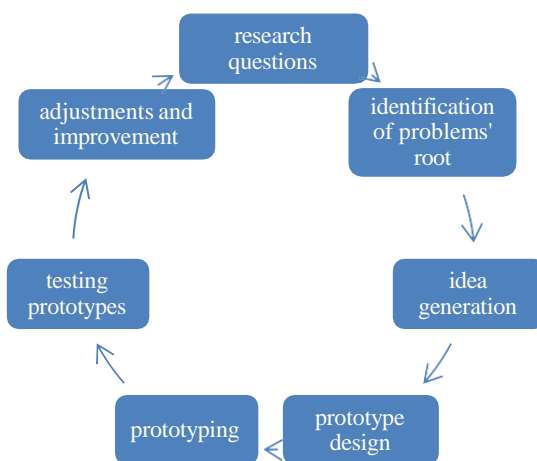
Figure 1 Stages of learning and practical work in design education (author's elaboration).

According to the demographic and gender profile, the gender and age balance of scientific and pedagogical staff (SPS) is generally maintained, with one more male in EG1, but this is not a significant advantage (Table 1). Therefore, the groups are formed so that all age categories are represented in each group, with the majority of respondents being individuals aged 24 to 40 (18 people) and the minority being teachers with work experience in the range of 40-60 years, which is 6 people.

The educational spectrum of the respondents who study in groups is quite broad - it includes 5 Ukrainian universities. And this is understandable since these educational institutions provide training in the field of knowledge 02 "Culture and Art" in the specialty 022 "Design" (from 13.12.2018 No. 1391). The vast majority of teachers in the group are young and have little work experience. Out of 14 participants with extensive work experience (11-20 years, 21 and more), there are 4 people.

Table 1 Demographic and qualification characteristics of the respondents (author's elaboration).

		EG1	EG2
Age	24-40	10	8
	40-60	4	6
Gender	Female	6	7
	Male	8	7
Education background	Lviv National University named after Ivan Franko	2	2
	Lviv National Academy of Arts	2	2
	Precarpathian National University named after Vasyl Stefanyk	3	1
	Zaporizhzhia National University	5	3
	Kharkiv State Academy of Design and Arts	2	6
Work experience	1-3	2	2
	4-10	10	10
	11-20	1	2
	21+	1	0
Total		14	14

In the second stage, in parallel with the introduction of new courses in EG1 and EG2 for all experiment participants in groups, a survey was conducted to show the attitude and evaluation of teachers towards the program characteristics, factors shaping the respondents' attitude towards the introduction of cutting-edge research into design education, and the level of perception and evaluation of innovative pedagogical knowledge in continuous education by industry professionals (Figure 2).

Figure 2 Algorithm of implementation and main characteristics of continuous design education (author's elaboration).

We identified the following algorithms of continuous design education:
− Self-reflection (accumulation of ideas, trial and error through personal experience, brainstorming, etc.);
− Idea formation (idea generation, concept formation, selection of communication channels, analysis of possibilities and ways of implementation);
− Implementation of creative projects (design project formation and implementation, modernization).

It is a system of indicators that demonstrate the algorithm of project activity implementation in design education, the way of accepting and integrating innovations into higher education practice. Accordingly, at Stage 2, during the course study and through surveys conducted among groups of respondents, a preliminary evaluation of innovations in design education, and attitudes towards implementing a continuous design education system that constantly operates, regardless of age and education level, was carried out (Table 2a).

Table 2a The level of perception and evaluation of innovative pedagogical knowledge implementation by preschool educational staff (author's elaboration).

Problematic issue	№	Yes	No	Partly
Is there a need for continuous design education?	EG1	4	2	8
	EG2	3	4	7
Should we integrate design education into teaching practice?	EG1	5	2	7
	EG2	4	1	9
Do you feel the need for design education in your teaching practice?	EG1	4	3	7
	EG2	4	2	8
Are your fears/unwillingness to participate in continuous design education related to internship programs?	EG1	5	4	5
	EG2	4	6	4
Do you have previous experience of participating in innovative activities in the specialty 022 "Design"?	EG1	4	10	
	EG2	6	8	
Do you have a positive feeling about the introduction of continuous design education in Ukraine?	EG1	6	3	5
	EG2	5	4	5
Integration of design education into teaching practice is the responsibility of the institution's administration	EG1	8		6
	EG2	6		8
The attitude towards continuous design education should be changed to a more positive one	EG1	8		6
	EG2	6		8

Overall, the majority of respondents have a positive attitude towards innovation, but only 9 out of 28 are ready to implement it in practice. In addition, 16 people are partially prepared to learn in the continuous design education system. 5 people denied the necessity of continuous design education throughout life.

24 respondents can entirely change their attitude towards implementing new pedagogical knowledge, and 36 can partially change their attitude.

In the final stage (Stage 3), respondents are surveyed to assess their perception of innovative pedagogical knowledge after completing the courses.

At the final stage, in EG1 and EG2, the results with definite answers changed the most - there were fewer of them, and their number decreased to 10%, but in the expert group of 8 people, it decreased to 4. It is because the respondents in the experimental group were ready/partially ready to bring innovations into their own practice after the design education project (a total of 9 people fully and 18 people partly). It is 10% more than the previous survey results (Table 2b).

Table 2b The level of perception and evaluation of innovative pedagogical knowledge implementation by preschool educational staff (author's elaboration).

Problematic issue	№	Yes	No	Partly
Is there a need for continuous design education?	EG1	5	1	8
	EG2	5	2	7
Should we integrate design education into teaching practice?	EG1	5	1	8
	EG2	4	0	10
Do you feel the need for design education in your teaching practice?	EG1	5	1	8
	EG2	4	1	9
Are your fears/unwillingness to participate in continuous design education related to internship programs?	EG1	6	2	6
	EG2	5	3	6
Do you have previous experience of participating in innovative activities in the specialty 022 "Design"?	EG1	4	10	
	EG2	6	8	
Do you have a positive feeling about the introduction of continuous design education in Ukraine?	EG1	6	2	6
	EG2	5	1	8
Integration of design education into teaching practice is the responsibility of the institution's administration	EG1	9		5
	EG2	8		6
The attitude towards continuous design education should be changed to a more positive one	EG1	10		4
	EG2	9		5

Before implementing the innovations, out of 28 teachers, 27 were ready or partially ready at the end of the experiment. As a result, the total number of positively oriented respondents in the experimental group increased by 10% overall.

4. Discussion

Innovative measures that can make education work creative and relevant tasks of the national continuous education design system have been proposed by Brovchenko, A. I. (Brovchenko 2022). First of all, the following system for implementing continuous design education in Ukraine has been defined:

− Design-technological education (primary, pre-profiling, profiling, vocational (professional-technical), advanced education institutions).
− Design-art education.
− Culture-art education with elements of ethnic design (higher education institutions of cultural, artistic, and pedagogical education).
− Production-technological education with ergo-design (higher technological, technical, economic education institutions).

In this study, harmonizing the presented system and constant work on improving the quality of design education is one of the main conditions for developing higher education in Ukraine, which involves the continuous introduction of innovative pedagogical knowledge. In a study on the internationalization process of higher education (Sui 2020), design education has occupied significant positions. An important aspect is the system of promoting an exchange of experience, constant acquisition of new knowledge, and mobility in their transmission. After all, design education is referred to as an activity aimed at improving the quality of higher education. Furthermore, scientific technologies, equipment, and new information are constantly becoming accessible through the openness and continuity of education. Therefore, the world requires opening up the higher education system and constant cooperation with international sources of higher education (Pu, Sui 2016; Dussel 2020). Continuous education is an essential component of modern higher design education. It is a necessary condition for modernizing education, while its integration into the world, accessibility, and openness are relevant. This thesis is confirmed by the results of the presented experiment, where higher education teachers positively responded to the systemic implementation of continuous design education after completing a design education course. In the final stage of learning, 15% more respondents consider continuous design education in Ukraine mandatory, which is perceived as modernizing the higher education space. In the modern world, mastery of technology, creative thinking, and knowledge in the design field are necessary conditions for success in the job market. Therefore, design education has become essential in Ukraine. However, without a constantly updated, modernized system of continuous design education, the development of Ukraine's education industry cannot be achieved.

5. Conclusions

The research model of this study allowed us to determine the prospects of development and difficulties faced in implementing innovations into the continuous design education model in Ukraine. An algorithm for project activities was proposed, leading characteristics of design education were considered, an assessment of the attitude of higher education workers towards innovation, and changes in design education were made. The main tool for such education is a comprehensive design, as it characterizes modern design and involves constant work on improving the complex system of continuous design education. Continuous design education includes elements of preschool, secondary, extracurricular, and vocational education and involves higher and postgraduate education and constant self-education.

In Ukraine, there is a need for further development of software and educational and methodological support for design and technology in higher design education, as well as at the graduate and postgraduate levels. Nevertheless, the study shows that the Ukrainian continuous design education system can function harmoniously with continuous modernization of practical components and theoretical justification. Implementing innovative educational projects in design education for higher education workers permanently through internships and training courses forms comprehensive, innovative pedagogical knowledge. In addition, this experience effectively increases positive assessment of innovations and breaks down negative perceptions of new pedagogical technologies in design education.

The effectiveness of introducing an additional variable (educational disciplines in the experimental group) increased the positive attitude towards innovative pedagogical knowledge on average by 15%. It indicates the need to continue such practices, constantly working on updating the content. The problem of systemic and comprehensive harmonization of the continuous design education model with the realities of the modern world remains open. Therefore, it is necessary to develop further innovative design education projects that will effectively overcome the negative perception of measures to modernize the educational space of higher education in Ukraine.

Ethical considerations

Not applicable

Conflict of Interest

The authors declare no conflicts of interest

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Contemporary Ukrainian cultural studies in the system of higher education

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Abstract The article considers the essential aspects of introducing cultural studies into the Ukrainian higher education system. The authors analyze the significance of the cultural approach in the formation of modern society and the development of cultural consciousness. The article examines the main principles and methodological approaches underlying modern Ukrainian cultural studies. The study's authors highlight the role of Ukrainian cultural studies in training specialists in the field of culture and art. They focus on combining theoretical knowledge with practical skills in the educational process, mainly through internships, master classes, and practical classes in cultural disciplines. This research also highlights the importance of an interdisciplinary approach in cultural studies. In other words, it allows combining knowledge from various fields of science, such as sociology, anthropology, psychology, and others. Also, it contributes to a deeper understanding of the essence of the culture and cultural processes. The article also draws attention to the need to implement modern teaching methods, such as active learning, problem-based learning, and project-based learning, to increase the educational process's effectiveness in cultural studies. In this research, the authors point out the importance of studying the historical aspect of culture in Ukrainian cultural studies and the need to preserve and promote cultural heritage. They emphasize the importance of developing national culture and patriotic education for the younger generation. The article highlights the problems that arise in introducing cultural studies into the Ukrainian higher education system, particularly the insufficient number of qualified teachers and the instability of funding. The authors suggest ways to solve these problems and promote the further development of modern Ukrainian cultural studies in the higher education system.

Keywords: contemporary Ukrainian cultural, higher education system, historical aspect, cultural heritage, national culture, patriotic education

1. Introduction

This article highlights the current issues concerning implementing contemporary Ukrainian cultural studies in the higher education system. Despite the importance of a cultural approach in shaping society and developing cultural consciousness, some challenges jeopardize the effectiveness and quality of the educational process.

One of the critical problems is the insufficient number of qualified teachers in the field of Ukrainian cultural studies. The need for skilled professionals to ensure proper student training limits their opportunities to acquire in-depth knowledge and develop in this field. The shortage of qualified educators also complicates practical sessions and internships, which are essential elements of the educational process in cultural studies.

Another area for improvement is the instability of funding in the field of cultural studies. Many universities and educational institutions face financial difficulties, which impede the development of cultural education. Insufficient funding leads to limitations in conducting research, updating material and technical resources, and accessing relevant resources and literature.

An additional problem is the need to combine theoretical knowledge with practical skills in studying cultural studies. The lack of practical sessions, workshops, and internships limits students' opportunities to gain practical experience and apply acquired knowledge in real-life situations.

These challenges emphasize the necessity for systematic changes and improvements in implementing contemporary Ukrainian cultural studies in the higher education system. Resolving these issues will require collective efforts from the government, universities, specialists, and other stakeholders.

This article aims to provide specific recommendations and solutions to enhance the learning process in cultural studies, considering contemporary cultural trends and needs. The research is focused on improving teaching methodologies, developing new approaches to education, and increasing the practical value of acquired knowledge and skills.

The goal of the article is to contribute to developing contemporary Ukrainian cultural studies as a relevant and vital field of knowledge in the higher education system and to improve the training of professionals in this field.

2. Literature Review

The literature review on contemporary Ukrainian cultural studies in higher education demonstrates that the topic is relevant and receives much attention in scientific studies. Some of the key research findings related to this issue are listed below:

− Iatsyshyn et al (2020) investigate the application of geoinformation systems in computer modeling and student learning. The study focuses on the use of open and specialized systems in the educational process.

− Bakhov et al (2021) explore distance education in the context of the COVID-19 pandemic. The work describes the experience of Ukrainian universities in implementing urgent distance learning forms.

− Kryshtanovych et al (2022) examine the peculiarities of creative burnout among education professionals in the public administration system. The study discusses issues related to disillusionment and overload among educational workers.

− Levytska et al (2020) model the conditions influencing migration activity in Eastern Europe, particularly in Ukraine. The research focuses on studying the factors affecting migration processes.

− Semenets-Orlova et al (2022) investigate the specifics of administrative activities of education managers in the context of distance learning. The study addresses aspects related to the organization and management of distance educational processes.

− Semenets-Orlova et al (2022) examine the human-oriented approach in the new trends of value-oriented public administration. The research analyzes the potential of education in implementing these trends.

− Strikha et al (2021) investigate the contemporary experience of interest representation in Europe. The study analyzes lobbying mechanisms and their role in shaping political decisions.

− Ladonk et al (2023) study regional aspects of economic modernization in EU countries. The work provides qualitative evidence for implementing economic modernization processes.

− Aleinikova et al (2020) studied project management technologies in public administration. The research focused on the role of project management in the public sector.

These studies cover various topics, including innovative teaching methods, distance education, psychological issues among education specialists, migration processes, administrative activities of education managers, lobbying, economic modernization, and project management.

3. Results

Ukrainian modern cultural studies are essential in understanding the Ukrainian people's history, values, symbols, and identity. However, there is a lack of systematic teaching of this subject in higher education institutions, which complicates the process of students acquiring cultural knowledge.

Firstly, cultural studies curricula require updating and contextualization to incorporate contemporary trends and challenges in the field of culture. It is necessary to provide a broader range of topics, including modern cultural processes, new forms of cultural expression, and the interpretation of related issues.

Secondly, there is a need to prioritize the practical aspects of teaching cultural studies. The students should have opportunities to apply their knowledge in real-life situations, conduct research, participate in cultural projects, and gain practical experience (Danylenko 2015).

Thirdly, it is crucial to strengthen collaboration between universities and cultural institutions. It may involve organizing internships, workshops, joint projects, and research initiatives to help students gain practical experience and expand their opportunities in the field of cultural studies.

Fourthly, ensuring adequate support and development of cultural research is essential. Faculty and students should have access to up-to-date literature, research resources, and databases that contribute to advancing cultural studies as a discipline in Ukraine.

Overall, the article calls for the active involvement of educators, students, cultural specialists, and researchers in addressing the challenges faced in the field of cultural studies within the higher education system. It emphasizes the need for curriculum updates, the development of practical aspects of teaching, strengthened collaboration, and adequate support to foster the growth of cultural education in Ukraine (Helbig 2016).

Assessing the effectiveness of implementing modern approaches to teaching cultural studies in the Ukrainian higher education system is an essential aspect of research. This assessment can be based on several factors:

− Student engagement. It is crucial to evaluate the level of students' interest in cultural studies and their active participation in tasks and projects related to the subject. If modern approaches contribute to increased student motivation and activity, implementation effectiveness can be considered positive.

− Application of interactive methods. The evaluation of effectiveness involves analyzing the use of interactive teaching methods such as discussions, group projects, role-playing games, etc. If these approaches help students better understand and analyze cultural phenomena and promote critical thinking and creative development, they can be considered effective.

− Use of modern technologies. The effectiveness assessment includes analyzing the use of modern technologies such as computer programs, videos, online resources, etc., which facilitate convenient and accessible learning of cultural studies. If implementing these technologies helps improve the quality of education and engages students in active participation, it can be seen as having a positive impact.

− Learning outcomes. The effectiveness of implementing modern approaches can be evaluated by analyzing students' acquired knowledge, skills, and competencies in the field of cultural studies. If students achieve the learning goals, demonstrate understanding, and apply cultural concepts and methods effectively, it can be concluded that the implementation has been successful.

In general, assessing the effectiveness of modern approaches to teaching cultural studies in the higher education system requires a comprehensive approach that includes analyzing various factors, from student activity and motivation to learning outcomes (Subtelnyi 2009).

The comprehensive mastery of the subject "Contemporary Ukrainian Cultural Studies" by students can be complicated by the following issues:

− Insufficient access to the relevant literature and research resources. The lack of necessary materials can hinder the learning process and in-depth study of contemporary Ukrainian cultural studies.

− Lack of active interaction with practical aspects of the subject. Inadequate practical learning components can impede students' understanding and application of cultural concepts in real-life situations.

− Lack of interactive teaching methods. Traditional passive approaches to teaching may not foster active student engagement in studying the subject and developing their critical thinking and analytical skills (Wilson 2006).

− Large class sizes. Having a large number of students in a class can make it challenging to provide individual attention to each student and limit opportunities for active discussion and idea exchange.

− Insufficient support and collaboration from teachers. Teachers' lack of proper support and cooperation can complicate the learning process and evoke a sense of disinterest among students in the subject.

− Outdated curriculum and teaching methodologies. The failure to update the curriculum and apply modern teaching methods can make the subject outdated, and students lose interest.

− Lack of practical opportunities for applying knowledge. Insufficient practical assignments and opportunities to apply cultural knowledge in real-life situations can hinder comprehension and understanding of the subject's importance.

− Language difficulties. Students whose native language is not Ukrainian may encounter difficulties in understanding and analyzing cultural concepts and texts.

These issues can hinder students' mastery of the "Contemporary Ukrainian Cultural Studies" subject and require additional efforts from teachers and educators to overcome them and ensure effective learning (Livezeanu 2014).

Contemporary Ukrainian cultural studies in the higher education system have several positive aspects, including:

− Relevance and significance. The study of contemporary Ukrainian cultural studies allows students to familiarize themselves with current trends, issues, and the development of Ukrainian culture, contributing to forming personal and national consciousness.

− Interdisciplinarity. Contemporary Ukrainian cultural studies combine the humanities, social and natural sciences, enabling students to broaden their knowledge and understanding of culture from various perspectives.

− Critical thinking. The study of Ukrainian cultural studies develops students' critical thinking skills and the ability to analyze, evaluate, and interpret cultural phenomena. It is a crucial competency in the modern world (Hill 2003).

− Cultural self-identification. The study of Ukrainian cultural studies contributes to the formation of national self-awareness and support for Ukraine's cultural heritage, which is essential for shaping the national identity.

− Development of creative skills. Ukrainian cultural studies in the higher education system promote the development of students' creative skills, their ability for self-expression, and creative activities in the cultural sphere.

− International cooperation. The study of Ukrainian cultural studies in higher education facilitates the expansion of international collaboration, experience, and knowledge exchange with colleagues from other countries, fostering cultural dialogue and mutual understanding (Kubijovyc 1993).

Contemporary Ukrainian cultural studies in the higher education system have numerous advantages that contribute to the formation of competent professionals in the field of culture, the development of cultural awareness, and the strengthening of national and international cooperation.

The following ways can be considered to improve the higher education system in the context of cultural education:

−   Curriculum Update. Revitalizing the curriculum to incorporate contemporary trends, technologies, and challenges in the field of cultural studies. It includes new topics, methodologies, and applied aspects of preparing students for the demands of the modern cultural environment (Dadabaev 2013).

–   Involvement of Practicing Specialists. Organizing meetings, lectures, and seminars with professionals from cultural institutions, museums, galleries, and other experts, enabling students to gain practical experience and acquire real knowledge in the field of cultural studies.

–   Development of Practical Skills. Implementing practical assignments, projects, and experiments allows students to apply their cultural knowledge in practice. Creating platforms for collaboration with cultural institutions and the implementation of practical projects.

–   Utilization of Modern Technologies. Incorporating interactive and online learning formats, utilizing virtual and augmented reality, digital resources, and tools to enhance the accessibility and effectiveness of cultural studies education (Dalton, M. 2012).

–   Foster Critical Thinking. Directing education towards developing critical thinking skills and nurturing students' analytical and evaluative abilities. Encouraging independent thinking, research activity, and exploration of new approaches in cultural studies.

–   Collaboration with International Partners. Expanding cooperation with other countries' universities, research institutions, and cultural organizations. Organizing student exchanges, internships, and joint projects to enrich cultural experiences and deepen international understanding.

–   Provision of Adequate Support and Counseling. The development of a support system for students, providing them with necessary resources, consultations, and individual support to facilitate effective learning and the development of cultural competencies (Hastings 1997).

Improving the higher education system in the context of cultural education involves comprehensive measures aimed at improving the quality of education, developing practical skills, and encouraging students' intellectual growth in this area.

4.   Discussion

A discussion on the topic, comparing the opinions of different scholars and researchers who have studied this topic, can be exciting and contribute to expanding our understanding of contemporary Ukrainian cultural studies. In the following, we will look at some of the key views and research of some scholars in this area.

Dovzhenko O. P., a prominent Ukrainian film director, and cultural critic, focused on the importance of cultural studies education in the higher education system. He emphasized the need to explore the national culture and its influence on forming the student's personality.

Pavlov S. I., a well-known Ukrainian cultural critic, and philosopher, analyzed the impact of globalization processes on contemporary Ukrainian culture. He noted that higher education should consider the changing cultural context and prepare students for the challenges of globalization.

Kuzmenko O. Yu., a researcher of Ukrainian cultural studies, focused on the role of technology in the higher education system. She argued that information technology affects the ways of learning and spreading cultural knowledge.

Yatskovskyi M. I., a sociologist, emphasized the need for an interdisciplinary approach in contemporary Ukrainian cultural studies. He argued that higher education should promote the understanding of culture as a complex phenomenon that includes aspects of literature, art, philosophy, and sociology.

A comparison of the opinions of these scholars reveals that Dovzhenko emphasized the importance of cultural studies education, Pavlov analyzed the impact of globalization, Kuzmenko studied the role of technology, and Yatskovskyi underlined the need for an interdisciplinary approach. Given these different perspectives, it can be concluded that contemporary Ukrainian cultural studies in the higher education system require the integration of cultural, global, technological, and other aspects for a more complex understanding by students.

These scholars' opinions are only a few of the many perspectives on contemporary Ukrainian cultural studies in higher education. A more detailed study and discussion of these viewpoints can help better understand the importance of this field and how it can be implemented in higher education.

After analyzing these opinions, it is possible to conclude that introducing modern approaches to teaching cultural studies is necessary. Students should actively participate in the learning process, promoting their creative development and independent research. The issues related to practical classes and limited access to resources need to be addressed and resolved. Improving the higher education system in cultural studies should be a priority to ensure high-quality training and development of young scientists.

5. Conclusions

In the modern world, contemporary Ukrainian cultural studies in the higher education system play a significant role in shaping competent professionals capable of understanding, analyzing, and interpreting cultural phenomena. It contributes to the development of critical thinking and cultural self-awareness among students.

Contemporary Ukrainian cultural studies in the higher education system help students to familiarize themselves with current trends and issues in Ukrainian culture. It enhances their creative skills and ability for self-expression. Besides, it contributes to forming national and international consciousness and preserving and popularizing Ukraine's cultural heritage.

Moreover, it has an interdisciplinary nature that allows students to broaden their knowledge and understanding of culture from various perspectives. It also promotes international cooperation, experience, and knowledge exchange with international students, fostering a cultural dialogue and mutual understanding.

However, some challenges hinder the comprehensive mastery of cultural studies by students. Insufficient support and guidance, limited resources, and a lack of practical components in education may prevent students from acquiring comprehensive knowledge and skills in the field of cultural studies.

The following aspects need to be addressed to improve the higher education system in the context of cultural training:
- improving the quality of teaching cultural disciplines;
- ensuring the availability of modern teaching materials and resources;
- the practical orientation of education with an emphasis on the development of professional skills;
- creating a favorable environment for students' self-development.

Overall, contemporary Ukrainian cultural studies in the higher education system have great potential to shape competent cultural professionals and promote the development of cultural awareness and identity among students. However, continuous efforts are needed to improve the learning conditions and enhance the higher education system in line with the needs of modern society and global cultural challenges.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Innovative practices in teaching social sciences and humanities as the basis of modern pedagogical discourse

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Abstract Innovation in education is of paramount importance, as it facilitates the continual enhancement of educational content value and quality. This article aims to present the implementation of an "innovative environment" within university education as a significant element of pedagogical discourse. It remains pertinent to explore strategies for incorporating innovative practices into the teaching of social sciences and humanities within the realm of higher education. The primary objective of this study is to ascertain the effectiveness of innovative practices in the instruction of social sciences and humanities, while also determining students' perceptions regarding the necessity of integrating innovative practices, resources, and instructional techniques within the modern educational process. Given the nature of the study's objective, an integrated approach to methodology is required. The primary methodology employed in this study is the pedagogical experiment. Additionally, the research utilized methods such as questioning, observation, and the descriptive approach. The principal hypothesis posits that incorporating disciplines with social and humanitarian content that actively employ innovative practices is imperative for the education and training of professionals across various fields. The inclusion of such practices is expected to enhance the quality of education by fostering motivation to learn, facilitating career advancement, and improving the overall efficiency of the educational process, among other outcomes. The findings of this study provide evidence supporting the value of innovative practices in teaching humanities disciplines, serving as a foundation for pedagogical discourse within university education. Furthermore, the integration of innovative approaches in the instruction of social sciences and humanities establishes the groundwork for future reflection and the development of pedagogical tools, facilitating the successful application of acquired knowledge in practical contexts.

Keywords: social sciences, pedagogical discourse, innovative practice, higher education, innovative educational environment

1. Introduction

Efforts aimed at the modernization and advancement of university education necessitate the establishment of an efficient innovative environment. Key components of this endeavor include the modernization, support, and implementation of innovative practices, as well as the integration of information technologies into the educational process. An important topic within contemporary pedagogical discourse is the verbalization of human cognitive processes and their role in self-organizing the educational framework. This subject is frequently explored as an integral part of educational technologies, reflecting its relevance to current pedagogical considerations.

The corpus of social sciences and humanities poses a considerable subject of debate within European education. The presence of longstanding university traditions and a firmly established body of compulsory educational components in the humanities necessitate a continuous process of updating methodological tools and revising educational programs in alignment with labor market demands and the advancements of modern science. This ongoing need for adaptation is driven by the imperative to maintain relevance in the face of evolving societal needs and the ever-expanding frontiers of knowledge.

The social sciences typically encompass the body of economic and sociological disciplines, along with educational components of law and political science (Khomyak et al 2022; Hapsari and Wirawan 2018). The primary focus of study within these social disciplines revolves around human society, often referred to as "society."

The humanities encompass a range of disciplines, including linguistics, philosophy, psychology, and history. These fields primarily focus on the moral, intellectual, cultural, and social aspects of individual and societal activities (do Rosário

Santoro Franco 2017). The composition of social sciences and humanities can vary depending on different perspectives on the development of university education. For instance, in the British classification, disciplines such as language, religion, and music are included within the humanities, while in Central Asian universities, the humanities also encompass culture and art (Khomyak et al 2022; Hutsoliak 2012).

The application of innovative practices is of great significance in the realm of humanities disciplines. It is crucial to consistently incorporate and draw upon the experiences and advancements in recent procedures and methods developed by The Institute of Cognitive Behavior (2021).

The program is designed as a comprehensive set of teaching methods that leverage innovation, digitalization, and a democratic approach to foster effective learning in the social sciences and humanities. Emphasizing the development of positive thinking, communication skills, the ability to provide verbalized assessments, self-directed learning, and proficiency in managing crises and problem-solving, this methodology serves as a foundation for learning. Furthermore, it entails the introduction of new integrated disciplines during the initial years of study to cultivate a range of skills. In our pedagogical experiment, this is exemplified by the discipline "Humanitarian Studies: Theory and Practice," specifically designed for first-year students during the first (bachelor's) semester.

Studies of this nature are closely intertwined with the degree to which innovative practices are implemented within the educational domain. The effectiveness and positive impact of these innovations can be examined through quality criteria and evaluated based on the perspectives of both educators and students (Iyobe and Umeda 2014). The successful implementation of innovations in teaching social sciences and humanities is contingent upon the attitudes and assessments of all participants in the educational process. Nevertheless, introducing innovative practices into these disciplines presents challenges due to the vast array of program materials available, the requirement for educators to possess advanced methodological skills and digital literacy, the need for adequate funding, and a willingness to embrace change, among other factors.

2. Literature review

Numerous studies have investigated the classification of social sciences and humanities, as well as the progressive development of a novel pedagogical discourse characterized by its innovative nature (Vilaça and Dias 2014). The research focuses on experimental interventions and their outcomes concerning the integration of innovations within university education, particularly within the domain of humanities instruction (Salgur 2013). The exploration encompasses the utilization of emerging technologies, such as social networks, software applications, cloud messengers, quizzes, and educational games, to enhance the educational experience (Karpushyna 2019).

Several noteworthy studies have explored innovative methodologies within the realm of linguistics, highlighting their effectiveness (Noon-ura 2008; Ko et al 2013; Rababah 2020). Additionally, research has been conducted on the specificities of employing innovative approaches in the psychological domain (Damian et al 2017) and within technical disciplines (Kiki-Papadakis and Chaimala 2016; Khomyak 2022). Furthermore, investigations have examined the potential utilization of media, social platforms, networks, and messengers as innovative components within the contemporary pedagogical discourse, thereby harnessing their educational capacities (Sim and Pop 2014).

Research efforts related to this issue span various domains, encompassing the linguistic and didactic aspects of the effectiveness and practical relevance of studying social sciences and humanities (Kostikova et al 2019). Additionally, investigations explore the role of the humanitarian component in fostering the development of civic engagement among future professionals, emphasizing the importance of critical thinking within the realm of professional communication (Cavus and Ibrahim 2017; Severino and Tavares 2020). Furthermore, innovative teaching practices are examined, focusing on the application algorithms and distinctive features of lexicon approaches, graph-based approaches, and quiz methods (Malik 2016).

Significant emphasis is placed on the exploration of innovative teaching practices, with certain scholars associating this matter with the concept of an "innovative climate." Central to this concept is the encouragement of creative endeavors, fostering students' research initiatives, promoting legal awareness and information literacy, and, most importantly, cultivating a comprehensive comprehension and effective application of the acquired knowledge and skills within practical contexts.

Several studies have demonstrated the positive impact of integrating innovative practices into the teaching of social sciences and humanities, resulting in the development of highly skilled and competitive professionals capable of undertaking complex research, professional, applied, and creative tasks (Synorub and Medynska 2019; Kryshtanovych et al 2022). Consequently, this research area has garnered significant attention from scholars in the field of pedagogy (Bondar et al 2020).

Various scholarly works, such as those by Araújo da Silva and Rabelo (2021), delve into the modernization of education within the framework of a "flexible" university, where postmodern discourse plays a pivotal role in shaping pedagogical practices (Mason 2006). These studies primarily examine the potential prospects and forthcoming directions for innovation within pedagogical discourse, with a particular emphasis on developing novel approaches to enhance the efficacy

of personality development in the context of university education. Furthermore, it is advisable to explore the experiences of implementing innovative practices within the educational sphere to inform future endeavors.

3. Aims

The research objective of assessing the effectiveness of innovative practices in teaching the corpus of social sciences and humanities entails several specific tasks:
1. Presenting a comprehensive collection of innovative educational approaches for integrating social sciences and humanities into the course structure.
2. Evaluating the degree of success observed in the experimental groups during various stages of the experiment.
3. Investigating the students' assessment of the thematic and methodological relevance associated with the introduction of innovative practices, learning aids, and teaching techniques as fundamental components of the contemporary educational process.

4. Materials and methods

The study was conducted from September 2022 to May 2023, taking place at two institutions: Kamianets-Podilsky Ivan Ohienko National University, specifically within the Faculty of Natural Sciences and Economics, and Khmelnytsky National University, within the Faculty of Information Technology. Both institutions are located in Ukraine.

The experimental group consisted of a total of 82 first-year (bachelor's) students. Specifically, 24 individuals were enrolled in law specialties within the field of economics at Kamianets-Podilsky Ivan Ohienko National University. Additionally, there were 58 first-year (bachelor's) students studying in departments of telecommunications, cybersecurity, media, and intellectual technologies at Khmelnytsky National University.

All participants voluntarily consented to take part in the experiment. The participants were divided into four distinct groups. The curriculum encompassed the incorporation of a novel course. In the first semester, the discipline "Humanitarian Studies: Theory and Practice" was made available to these groups. This course was included as part of a selective block of disciplines, offering students the choice to enroll. The primary objective of the course was to assist first-year students in adapting to the academic environment, acquainting them with practical principles of communication, establishing the guidelines for successful functioning within higher education institutions, encouraging active participation in student self-governance, and fostering the development of ethical behavior among future specialists in the economic, legal, and digital sectors. The course primarily focused on abstract concepts that necessitated the cultivation of a public stance and the activation of communicative elements, forming the foundation of the curriculum.

The research encompasses three distinct stages. The initial stage is characterized as preparatory and organizational. During this phase, the research team obtained the necessary approvals from the university administration and secured the participants' consent to partake in the study. Additionally, after the first stage, the respondents' overall grade point average was assessed, questionnaires were distributed, and a survey was conducted to gather personal data and determine the participants' attitudes toward the proposed discipline. It is important to note that students provided their answers voluntarily, and the research team ensured the confidentiality of all collected information. No personal information obtained from the respondents will be disclosed by the research team.

Both at the end of the first stage and the subsequent second stage (at the end of the semester), each group underwent testing to assess their knowledge and skills, enabling the analysis of the participants' overall performance. During the first stage, several innovative practices were employed, including business simulations (role-playing), the modeling method, and brainstorming.

During the second stage, the research employed observation and survey methods to gather relevant data, which will subsequently be utilized to address the research inquiries. The research team diligently collected and analyzed this data to derive meaningful insights.

Moving on to the third and final stage, a concluding survey was conducted to assess the respondents' evaluation of the newly implemented training course. Additionally, a comprehensive analysis of the results was performed, ensuring that the gathered data was meticulously processed, utilized, and made publicly available. This information forms the foundation for evaluating the efficacy of the experiment and addressing the research questions at hand.

During the second stage, the research team employed various methodological approaches and theoretical studies to address the research questions posed in the study. The obtained results are presented descriptively, encompassing statistical analyses along with the consideration of survey data.

The study encountered certain challenges, including the relatively limited duration of the experiment (spanning a single academic year) and the constraints on conducting in-depth qualitative research to delve into the underlying motivations behind respondents' decision-making processes.

5. Results

In our perspective, a crucial phase in the study involves determining the content and significance of innovative practices within the structure and methodological framework of humanities courses. It is essential to explore their relationship with career orientation and the developmental impact on all participants engaged in the educational process. The utilization of innovative practices by teachers should be grounded in a comprehensive set of educational approaches, which form the foundation of such courses.

The objective of the "Humanitarian Studies: Theory and Practice" course, implemented in the experiment, aimed to equip incoming students with the necessary foundations in humanities. This course sought to foster their understanding and engagement with the theoretical aspects and practical applications of the humanities disciplines (Figure 1).
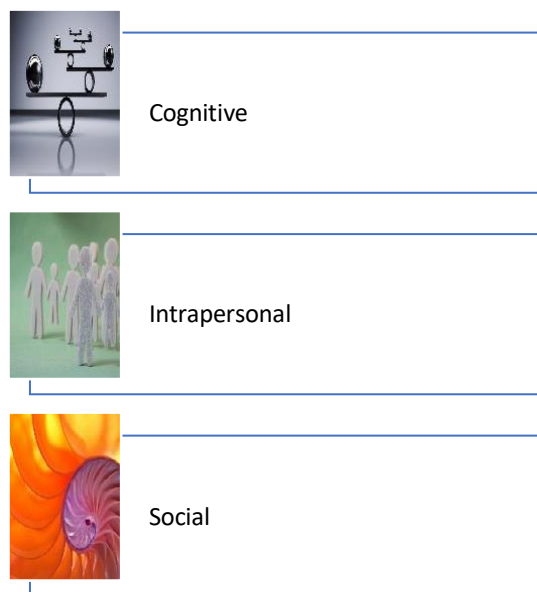

Figure 1 Complex of innovative educational approaches to teaching social sciences and humanities (compiled by the authors).

These approaches encompass intrapersonal (self-regulation, emotional background), social (interpersonal), and cognitive (ability to navigate non-standard crises, metacognition, critical thinking) dimensions (Reed 2020).

At the initial stage of the experiment (Stage I), the research team conducted an assessment of the existing educational program and evaluated the potential for its modernization concerning the introduction of the new course, "Humanitarian Studies: Theory and Practice." Collaborating with the participating teaching staff, the research team developed teaching and methodological recommendations for the course and prepared instructional materials. Additionally, preliminary training sessions were conducted for the participants and technical staff to familiarize them with the use of advanced technologies in the learning process.

After the first stage of the experiment, which aligned with the conclusion of the 1st semester, the participants' knowledge was assessed and their overall performance was analyzed. This evaluation was carried out through the implementation of various techniques such as quizzes, tests, simulations, and the development and analysis of practical cases.

The performance of the groups, upon completing half of the course, indicates a relatively high level with an average score of 50% (good and excellent grades). The highest proportion of positive grades was observed in EG-1, where 59% of the participants achieved favorable results, followed closely by EG-3 with 53% (Table 1).

Table 1 Assessment of the level of success in the experimental groups (hereinafter EG) at the end of Stage 1 (compiled by the authors).

	Failed	Satisfactory	Good	Excellent
EG-1	6 %	35 %	42 %	17%
EG-2	12 %	40%	40%	10 %
EG-3	6 %	41 %	40 %	13 %
EG-4	10 %	42 %	33%	15 %

Source: compiled by the authors.

During the second stage of the experiment, the teaching of the new discipline in the social sciences and humanities, Humanitarian Studies: Theory and Practice, was extended as planned. Innovative practices implemented during this stage included project activities, group work, and the role of the project leader in material preparation. Furthermore, students were expected to defend their projects and present their leadership positions and concepts. To assess student performance

in the new discipline, a control test was administered. Changes in student performance were examined at the end of the second semester.

Upon completion of the entire training course, a significant proportion of the respondents attained positive grades of "good" and "excellent": EG-1 - 65%, EG-2 - 65%, EG-3 - 68%, EG-4 - 54%. On average, the overall performance of students exhibited an increase from 50% to 58%, indicating an average improvement of 8% (Table 2).

Table 2 Assessment of the academic performance of the experimental and control groups in the second stage (compiled by the authors).

	Failed	Satisfactory	Good	Excellent
EG-1	5 %	30 %	47 %	18%
EG-2	8 %	39%	40%	15 %
EG-3	4 %	38 %	40 %	18 %
EG-4	6 %	40 %	38%	16%

Source: compiled by the authors.

The final stage of the study encompassed the assessment of various indicators. These indicators comprised academic performance, project defense outcomes, and evaluations from peers and instructors. The utilization of control tests enabled the measurement of communication skills, socialization abilities, readiness to effectively operate within the student community, and a comprehensive understanding of the unique aspects of student education. Additionally, student success in the course "Humanitarian Studies: Theory and Practice" served as an indicator of a commendable level of proficiency in the repertoire of crisis management skills and the capacity for self-regulation within the educational process. Consequently, innovative practices emerged as the principal impetus behind the formation of the contemporary pedagogical discourse.

Furthermore, the capability to translate knowledge from the domains of social sciences and humanities into a comprehensive set of skills and competencies, along with the aptitude to apply the acquired knowledge in future professional endeavors, serves as a discerning criterion for assessing the efficacy of integrating innovations in higher education.

Upon completion of the "Humanitarian Studies: Theory and Practice" course, a survey was administered to evaluate the participants' perception of the innovation introduced through the new course. The primary objective of the course was to facilitate the socialization of young individuals into the academic discourse of the university setting, fostering the development of effective learning strategies and the acquisition of essential competencies for successful academic pursuits. Furthermore, the course aimed to cultivate skills such as engaging in constructive dialogues, undertaking project-based activities, comprehending the fundamentals of leadership, and navigating the educational system within the university context.

In the concluding phase, participants were presented with a questionnaire. Closed-ended responses were required, allowing for a simple "yes" or "no" answer (Table 3). The outcomes were tabulated as percentages. Throughout the course, students were encouraged to prioritize the development of various skills and abilities, while also evaluating the significance of these opportunities for their learning and interpersonal communication. The participants were provided with a list of six items for contemplation.

Table 3 Participants' assessment of the topics and practices used in the discipline "Humanitarian Studies: Theory and Practice".

Course topics	EG-1 Yes	EG-2 Yes	EG-3 Yes	EG-4 Yes
Awareness and effectiveness in learning	34 %	32 %	20 %	25 %
Self-regulation of personal learning activities	29 %	27 %	18 %	20 %
Anti-crisis management	38 %	37 %	20 %	20 %
Fundamentals of training project management	48 %	40 %	25 %	25 %
Regulated communications and digital literacy	59 %	60 %	40 %	46 %
Anti-crisis communications	53 %	58 %	38 %	42 %

Source: compiled by the authors.

Based on the survey results, it can be inferred that a favorable evaluation of one's abilities and a willingness to apply the acquired knowledge and skills in future education are significant. Participants from the experimental groups achieved the highest ratings for practices associated with communication regulation, digital literacy, and the capacity to respond effectively in crises.

The utilization of knowledge and skills derived from the social sciences and humanities facilitates the realization of potential aimed at developing an understanding of society, enhancing communication skills, fostering independent work abilities, promoting critical thinking and creativity, and motivating learning and professional growth, among others. The integration of innovative practices within university education assists students in cultivating their civic positions, with the acquired knowledge expected to shape personal perspectives and behavioral norms.

6. Discussion

The body of research concerning the integration of innovative practices into pedagogical discourse primarily focuses on addressing the challenges and potential of effectively teaching humanities and disciplines related to the social and public aspects of society, as well as enhancing student engagement within the educational environment (Semenets-Orlova et al 2022; do Rosário Santoro Franco 2017; Czarnecki and Rees 2014). The pursuit of innovative practices that can be effectively implemented in the university context, thereby enhancing motivation, social participation, and communication abilities, remains ongoing. Findings from the study indicate that the introduction of practical, application-oriented, integrated, and innovative educational components receives positive evaluations from participants in the educational process, with over 50% of respondents expressing approval for such practices on average.

When examining the principles of cultivating students' civic stance (Khomyak 2020; Ivanova et al 2020), it becomes apparent that the role of social sciences and humanities extends beyond the transmission of knowledge. Instead, the focus should be on fostering critical thinking and values, thereby countering ineffective rote learning. The utilization of discussions, role-playing games, debates, round tables, and project-based activities within the learning process facilitates the development of critical thinking, initiative, and student autonomy (Rothen 2018; Popovych et al 2020; Araújo da Silva and Rabelo 2021). Our study's findings indicate that participants positively evaluated the incorporation of adaptive and practical case studies in the teaching of social sciences and humanities. Furthermore, academic performance in the course, which integrated innovative practices, experienced an overall increase of 9%. Students also expressed appreciation for the introduction of this comprehensive discipline aimed at adapting to the new academic environment.

7. Conclusions

The integration of innovative practices into the teaching of social sciences and humanities within university education represents a significant and valuable aspect of contemporary pedagogical discourse. By adopting an innovative approach, university education promotes independence, creativity, effective learning, career advancement, and proficiency in project-based activities. Within the realm of modern pedagogical discourse, one of the primary objectives is to foster educational and social values while nurturing a civic stance. Special attention is given to the development of communication skills, social engagement, and preparedness to confront professional challenges and critical situations.

The conducted pedagogical experiment validated the efficacy of this methodology in enhancing the efficiency of the learning process. The study groups exhibited an average improvement in academic performance of 9%, while the positive reception of innovations and the introduction of contemporary social and humanitarian courses exceeded 50%. This study has contributed to the understanding that present-day students display interest in and a favorable appraisal of the integration of innovative educational practices aimed at fostering communication, cognitive, and professional skills. The practical significance of this study lies in the identification of tools for enhancing student performance.

The educational process incorporates diverse European innovations that contribute to enhancing the learning experience and facilitating student adaptation. Simultaneously, teachers are encouraged to continuously engage with innovative practices that foster heightened interest in the subject matter. This is particularly relevant when teaching social sciences and humanities within comprehensive higher education institutions.

The issue of further integrating innovative practices into the educational environment as components of pedagogical discourse remain unresolved, as it aims to equip students with the necessary skills for effective engagement within the academic sphere, fostering their proactive and self-directed learning.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

The role of cognitive linguistics in developing students' communicative competence and forming their linguistic personality
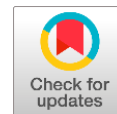
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Abstract The research examines the specifics of cognitive linguistics regarding developing communicative competence and forming students' linguistic personalities. Attention is paid to the essence of cognitive linguistics, the history of the emergence of this direction, and the current state of research. The article analyzes the ways, methods, and forms of cognitive linguistics application in the educational process to form the student's linguistic personality and develop communicative competence. The structure of the concept is presented for the simplified perception of a specific phenomenon by a student of a philological specialty. The study aims to reveal the role of cognitive linguistics in developing communicative competence and forming a student's linguistic personality. The object of research is cognitive linguistics as a linguistic direction. Research methods. Such research methods as description, analysis and synthesis, generalization, and linguistic analysis were used in the work. The work examines the issue of cognitive linguistics in terms of the development of communicative competence and the formation of students' linguistic personalities. The essence of the concept of "cognitive linguistics," its direction, principles, and principles are revealed. The history of the emergence of cognitive linguistics as a linguistic direction and the current state of research are described. Cognitive linguistics' impact on forming a student's communicative competence is described. The student's types of thinking are analyzed, in particular, abstract, professional, critical, fast, and systematic. The case method is a key cognitive linguistics method used during educational activities. The proof of the values of the method is implemented, and the stages of the case method are demonstrated with the help of a graphic image. The article provides ways of forming the student's communicative competence through cognitive linguistics. The advantages and disadvantages of each method are described. The construction of the concept is carried out, which contributes to the student's faster perception of the topic and the types of concepts given.

Keywords: cognitive linguistics, communicative competence, thinking, language personality, student, phenomenon

1. Introduction

Currently, the issues of students' linguistic personality and their communicative competence are among the key factors in organizing the educational process in higher education institutions. It is mainly driven by the fact that modern professionals should be versatile and possess a significant amount of knowledge in various fields to fulfill their professional duties. Moreover, they should be able to communicate with different interlocutors and use language units correctly during real-life interactions. Consequently, applying an approach that enables the rapid and effective formation of students' linguistic personalities becomes essential.

Given the relevance of this topic, the question arises about using cognitive linguistics in the educational process in higher education institutions to shape students' linguistic personalities and develop communicative competence. An innovative approach to forming a linguistic personality also needs to be considered.

2. Literature Review

The issue of the role of cognitive linguistics in developing students' communicative competence and forming their linguistic personality has been considered by such researchers as A. Koch (Koch 2021), T. Nikafa (Nikafa 2016), Ya. Rybalka

(Rybalka 2017), S. Romanchuk (Romanchuk 2022), and O. Shevchenko (Shevchenko 2020). They focused on the essence of cognitive linguistics and its principles, as well as its application in the educational process to develop students' communicative competence and form their linguistic personality.

In her study guide "Cognitive Linguistics," A. Koch reveals the essence of this linguistic field in terms of its use by philology students during classes (Koch 2021). In her opinion, the problem of applying cognitive linguistics in the educational process is the lack of a broad representation of this area based on practical experience. Students primarily receive theoretical material and therefore need more information about the possibilities and benefits of cognitive linguistics. At the same time, the scholar emphasizes that the awareness of the thinking process allows us to comprehend the essence of all linguistics.

In her article "Cognitive Direction in the Methodology of Teaching Foreign Languages," researcher T. Nikafa emphasizes the practical value of cognitive linguistics in studying foreign philology (Nikafa 2016). In her opinion, the introduction of cognitive linguistics methods into the students' learning process will allow the teacher, together with the students, the following:
– to quickly and efficiently select, process, and classify the learning material;
– to determine the necessary vocabulary depending on the situation and the purpose of communication;
– to apply the acquired knowledge in practice;
– to implement effective language strategies.

She believes that acquiring these skills positively influences the development of students' communicative competence, particularly in the context of intercultural communication.

O. Shevchenko is convinced that cognitive linguistics is currently one of the most relevant areas of linguistic research. She explains this by stating that language, as a societal phenomenon, cannot exist outside of the social, cultural, and historical contexts. Consequently, the question of the relationship between language and thought is significant and timely. In her article, "Cognitive Linguistics as a Direction of Linguistic Research," she emphasizes that studying cognitive linguistics allows for a comprehensive understanding of the causal relationships between specific processes and a deeper understanding of human consciousness (Shevchenko 2020).

Therefore, the available source base study shows that this topic is still under-researched. In particular, the issue of cognitive linguistics' place in the educational process of students of higher education institutions is poorly disclosed, and the problem of the practical value of cognitive linguistics in forming a student's linguistic personality is still open.

This article aims to reveal the role of cognitive linguistics in developing communicative competence and forming a student's linguistic personality.

3. Research Goals

According to the aim of the study, the following objectives are met:
– to reveal the essence of the concept of "cognitive linguistics;"
– to identify the practical value of cognitive linguistics in the development of students' communicative competence;
– to characterize the mechanisms of applying cognitive linguistics in forming students' linguistic personalities.

4. Research Methods

The following research methods were employed in this study: description, analysis, synthesis, generalization, and linguistic analysis. The description method was used to elucidate the essence of the concept of "cognitive linguistics," its principles and foundations, history, features, and characteristics. The method of analysis and synthesis was applied to identify the specifics of employing cognitive linguistics in higher education institutions. The generalization method was utilized to discern the influence of cognitive linguistics on the development of students' communicative competence. The method of linguistic analysis was used to reveal the structure of the concept and its types, which allows for forming a linguistic picture of the student's personality.

5. Results

At the present stage, considerable attention is given to studying cognitive linguistics. It is caused by the relatively recent emergence of this concept, the study of cognitive linguistics in the educational process of linguistic fields, and the availability of only a few of these concepts. Consequently, there is no unified understanding of "cognitive linguistics," leading to the development of various conceptualizations of this phenomenon.

In general, "cognitive linguistics" is an interdisciplinary science exploring cognitive processes in human consciousness. It facilitates thinking and understanding of the surrounding world (Zahnitko 2017). Cognitive linguistics, also known as cognitology, investigates models of consciousness related to cognitive processes such as acquiring, generating, utilizing, storing, and transmitting knowledge and processing and transforming information obtained through various means. It also involves decision-making based on this information, understanding human language, constructing logical inferences, argumentation, and other forms of cognitive activities (Tokareva 2020).

The history of this field is relatively brief. Cognitive linguistics emerged in the second half of the 1970s in the United States. This research field intersects with several disciplines as it integrates the efforts of scholars from various domains such as psychology, philosophy, logic, linguistics, psycholinguistics, anthropology, mathematics, cybernetics, and others. A significant milestone in the development of this science was the establishment of the International Cognitive Linguistics Association during the symposium in 1989 organized by René Dirven. Thus, it can be asserted that cognitive linguistics is a contemporary direction with a history of only about half a century (Zelenko 2021).

The basis of cognitive linguistics is the assertion that language is at the center of all human mental activity, representing its cognitive processes and abilities. It provides access to the world of others and their consciousness structures. At the present stage of the development of linguistic research, the solution of many theoretical and practical problems is associated with the study of the specifics of knowledge representation in language. In other words, there is a relationship between cognitive and linguistic structures, which led to the separation of cognitive science as a separate field (Sidorova 2020).

As a branch of linguistics, cognitive linguistics studies the functioning of language as a kind of cognitive (gnostic) activity and the cognitive mechanisms and structures of the human psyche through linguistic phenomena. The object of cognitive linguistics is cognition in its linguistic reflection. Cognition refers to the set of mental structures and processes that encompass all human cognitive activity. The subject of its study includes models of knowledge and human conceptions of the surrounding world, such as worldviews, frames, stereotypes, archetypes, concepts, and the ways of their verbalization (Gazuda 2018).

Cognitive linguistics aims to describe the dependence and correlation between the structures of language and human consciousness. Based on the peculiarities of this dependence, cognitive linguists seek to explain how the world and the human being are structured, what causes certain physical, physiological, and psychological phenomena and processes, and what their consequences are.

The underlying principles of cognitive linguistics are as follows:
- anthropocentrism: the study of the cognitive and spiritual aspects of humans concerning language;
- cognitivism focuses on investigating actual language-cognition units and processes in the human brain;
- expansionism: internal specialization within the field of linguistics while also fostering closer integration with other sciences, including considering cultural context in linguistic research;
- explanativeness: emphasizes explaining linguistic phenomena rather than simply describing them (Rzhevska 2018).

Such diversity of principles indicates that cognitive linguistics is based on clearly defined principles; therefore, this field has scientifically proven basics of functioning. Consequently, cognitive linguistics is applicable not only in theoretical but also in practical terms.

Cognitive linguistics is directly related to students' communicative competence. It is caused by the fact that communicative competence includes:
- the ability to use linguistic units and systems in practical terms;
- skills in combining different linguistic units;
- the ability to employ language in relevant situations.

In other words, it refers to the ability to communicate effectively in various contexts. This competence is vital in learning a foreign language, as it involves practical adherence to the principles and basics of using a particular language system in a specific situation (Semenets-Orlova et al 2022).

Regarding communicative competence, cognitive linguistics aims to develop the following types of students' thinking. The first type is professional thinking, which involves the ability of students to apply acquired knowledge in practical situations after completing their educational institution. If a task exceeds their experience, they should be able to compare different phenomena and establish connections based on their differences and similarities, thereby facilitating problem-solving. It is essential as modern graduates in foreign language faculties often work with political, cinematographic, musical, and narrative texts that contain numerous neologisms and metaphors. Therefore, professionals must be able to identify similarities between concepts and grasp the essence of specific expressions by understanding the formation of new connections or collocations (Vovk 2015).

The second type is abstract thinking, wherein students should identify connections and determine the relationships between intangible things. Such texts are often found in political discourse or advertising. Understanding the origin of these expressions allows for a clear comprehension of the formation of specific mechanisms.

The third type is systems thinking, which involves sequential and logical reasoning, organizing relationships between different phenomena in students' consciousness. The development of systems thinking is essential when working with scientific and technical texts. A specialist must offer the target audience a global understanding of a particular phenomenon by reproducing the cause-and-effect relationship, predicting further developments, and reproducing the impact of one direction on another (Vovk 2017).

The fourth type is critical thinking, characterized by the ability to evaluate phenomena objectively, their relationships with other processes, and their similarities and differences. This type of thinking is essential when working with scientific, technical, and political texts. The specialists must present something that immediately demonstrates the essence of things without indicating the specialist's bias.

The fifth type is fast thinking. Cognitive linguistics contributes to developing skills in timely and efficient information perception, processing, and transmission within a short period. For instance, if students communicate with a native speaker in real-time, via video conferences, or perform simultaneous translation, they need to quickly process information and effectively communicate or deliver it to the target audience. Accordingly, the ability to quickly absorb information is quite important, and its value is proportional to the person's professionalism (Kokareva 2022).

Cognitive linguistics, in general, has a positive influence on the formation of knowledge and self-awareness, the development of language experience, the consolidation of real-life experience, and the acquisition of knowledge from other fields or spheres by students. As a result, the cognitive methodology has gained popularity while developing students' communicative competence. It involves actively incorporating cognitive linguistics into the process of developing communicative competence. This methodology combines various linguistic units and establishes connections between them to form a unified conceptual worldview. Consequently, cognitive methodology, particularly the case study method, is frequently employed in language classes, including foreign language classes (Semenets-Orlova et al 2022).

The most popular method of the cognitive approach in working with students is the case study method. Its essence lies in presenting students with real-life situations that they may encounter in their professional activities. The task for students is to solve the problem correctly and demonstrate their professional knowledge, thus laying the foundations for professional experience. The method is based on constant interaction among students, and dialogues and polylogues contribute to the development of necessary skills. This method is often referred to as situational, as it involves selecting real-life situations. For example, a philology student may have a conversation partner who, although a native speaker, has a distinct regional accent, requiring the student not only to understand the interlocutor but also to communicate with them effectively. Such situations occur quite frequently, making practice in this area truly essential (Odyntsova 2019).

Often, when working with this method, the teacher presents a situation and one possible solution, and students independently determine whether this solution suits them or not. If not, they are expected to propose their approach and, through discussion with other students and dialogue with the teacher, evaluate the effectiveness of their strategy. Moreover, it is during the student years that various mental operations develop, making this direction influential in shaping young people's linguistic personalities.

The implementation of the case study method generally involves the following sequence of stages, as illustrated in Figure 1 – the stages of implementing the case method.
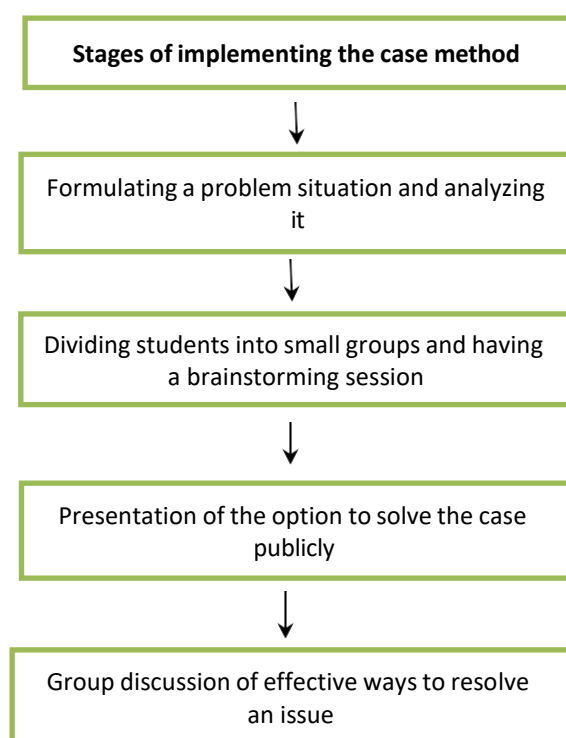
Figure 1 Stages of implementing the case method.

As can be seen from Figure 1, the sequence of each stage is regulated and designed to achieve clear goals. The most crucial stage for forming students' communicative competence is the third stage, where they are required to present their vision of solving a problem. During this stage, students not only engage in various types of thinking but also develop speaking skills, learn to interact with the audience, cultivate the ability to defend their own opinion, and objectively evaluate criticism.

Moreover, it promotes perceiving the audience not as those who intend harm but rather as fair critics who contribute to self-development (Udovichenko 2014).

The value of this method lies in providing an opportunity for everyone to demonstrate their position and thus solidify theoretical knowledge with practical application. It leads to increased motivation for learning, acquisition of new practical experience, formation of individuality, and becoming more active and initiative as students contribute their own ideas regarding education. Additionally, it cultivates a range of professional qualities, including patience, humanity, friendliness, and fairness.

The following methods of developing students' communicative competence through applying cognitive linguistics can be identified (Akimova 2022). They are presented in Table 1.

Table 1 The methods of forming student's communicative competence by using cognitive linguistics.

Number p/o	Method	Description
1	Student's existing experience	During the study of a particular topic, the teacher refers to the student's experience and seeks to work through it to improve the students' knowledge
2	Direct interaction of the student with the subject of discussion	The teacher suggests to familiarize with the subject of discussion and consider it when it is a tangible thing
3	Interaction with the student's thinking	The teacher suggests using abstract thinking and solving the task creatively
4	Language interaction	Communication-forming through dialog, debate, and public speaking
5	Student's independent cognition of language units	The teacher offers students to familiarize themselves with the language system

Each method generally has both advantages and disadvantages. Specifically, prior experience is vital for processing new topics. However, it can either be traumatic or not fully aligned with the task at hand. Also, an experience of interaction can cause incorrect or false associations. At the same time, direct interaction between the student and the subject of discussion allows for familiarizing oneself with the problematic issue and preemptively preventing non-standard situations during professional activities. However, such direct interaction may create the perception that the problem is being solved as quickly as in a controlled case during a learning task. It is also worth noting that interacting with the student's thinking facilitates the development of creative and innovative thinking. Nevertheless, a student may consciously disengage from the learning process if it does not interest them.

Verbal communication carries numerous advantages. It includes the development of the ability to express one's thoughts, the formation of interaction skills, and the acquisition of linguistic units. However, controlled verbal communication is artificial and may not yield the desired results. Simultaneously, independent exploration of linguistic units allows students to acquire knowledge individually regarding specific issues. Nonetheless, a student may choose to seek external expertise or avoid performing tasks (Chernovol 2020).

A student's linguistic personality can be developed by offering them to familiarize themselves with the following methods of cognitive linguistics used in teaching students:
– component analysis (identifying commonalities among different derivative words);
– analysis by structure (highlighting separate parts of a sentence or a word);
– word-formation analysis (determining the origin of a word and the reasons for its creation);
– transformational methods (considering possible ways of creating new words);
– frame analysis (identifying frames within the words).

These methods allow for forming the basics of cognitive modeling, enabling the student to work freely with new words and use them in appropriate situations. Consequently, students will possess different language options and will be able to select appropriate vocabulary based on the given circumstances (Matvieieva 2022).

When introducing students to cognitive linguistics, it is advisable to start by familiarizing them with the concept of a "concept." Generally, a concept refers to a mental formation in a person's cognitive sphere that corresponds to a specific structure and encompasses the culmination of knowledge and information assimilated by an individual, society's perception of a particular phenomenon. Accordingly, students internalize a unified worldview and form their own speech, developing practical communication skills. As a result, the following structure for the concept can be proposed.

According to this scheme, a concept has a complex and hierarchical structure. Familiarization with its components will allow the student to quickly and easily acquire information about the cognitive components and understand the basics of creating certain words. As a result, each component can be presented as follows Figure 2 (Kushkimbayeva 2023):
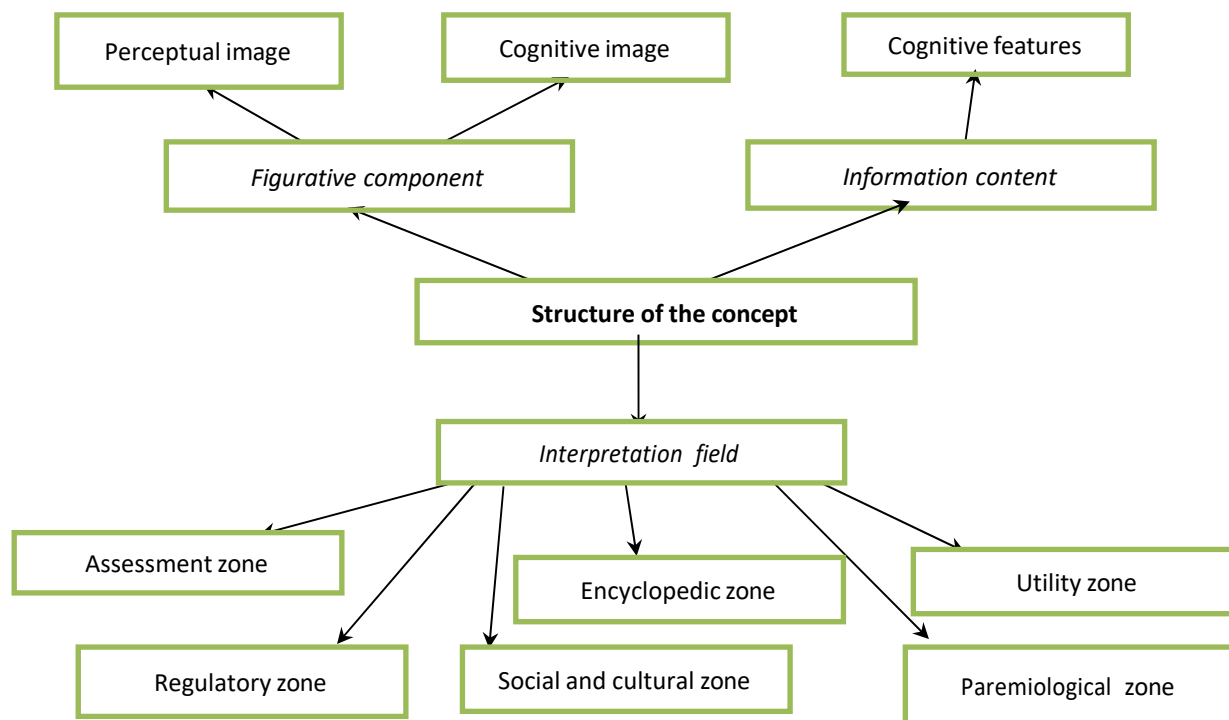
Figure 2 The structure of the concept.

The first component. The figurative component includes perceptual aspects (images that arise after seeing or hearing something through touch or taste) and cognitive aspects (abstract transformation of something widely used in a particular culture). Such images are common and familiar to students. They are often based on personal experiences.

The second component. Information content involves the characteristics of the concept that reflect the differences between one phenomenon and another. The information content includes presenting facts about a specific phenomenon, such as reflecting vocabulary or a dictionary (Tsymbalenko 2019).

The third component. The interpretation field involves the transformation of the meaning of one phenomenon to another. In other words, it generalizes the acquired knowledge about a particular component. Its main elements include:

– assessment zone (overall impression of the concept);
– utility (society's attitude towards a specific idea);
– encyclopedic zone (a generalization of characteristics of a particular phenomenon);
– regulatory zone (permissions and prohibitions regarding a specific phenomenon);
– social and cultural zone (a relation of the phenomenon to customs and traditions of the people);
– paremiological zone (proverbs and sayings related to the defined phenomenon) (Odyntsova 2020).

The division of each component into subcomponents belonging to the second level allows for a more thorough and optimal assimilation of information. At the same time, by familiarizing themselves with the concepts and their structure, students learn the peculiarities of people's thinking and determine the leading indicators of a certain process.

It can also be argued that cognitive linguistics, which focuses on students' knowledge of cultural thinking, positively influences the proficiency of individuals in terms related to this phenomenon. Therefore, the following types of concepts can be identified, reflecting the correctness of students' speech (Table 2).

Table 2 The types of concepts used in speech.

Number p/o	Name	Description
1	Perception	The use of signs of a certain phenomenon in a speech by listing its features
2	Scheme	The use of graphic elements to represent a certain phenomenon
3	Concept	The best way to display a certain phenomenon is by describing it
4	Frame	Combining available information about a particular phenomenon
5	Scenario (script)	A description of a certain sequence of actions or stages using dynamic motion features
6	Gestalt	Arranging widespread phenomena in society into a coherent unit

Accordingly, mastering each type allows students to process a large amount of information effectively. With the initial data about a phenomenon, students can either describe it, generalize existing knowledge, list its features, or create a mental schema. As a result, by breaking down the concept into parts, students can understand its origin, causes, and processes of

further development. All of this has a positive impact on their speech, as students gain awareness of the world and, consequently, develop their linguistic personality. Additionally, their level of communicability increases and communicative competence reaches a higher level.

6. Discussion

Therefore, it can be argued that the role of cognitive linguistics in developing students' communicative competence and forming their linguistic personality is challenging and causes many controversies. In particular, many sources are devoted to the application of this area in the study of foreign philology. In contrast, only a few national sources consider cognitive linguistics a valuable spot in forming a student's linguistic image during Ukrainian philology classes. The author believes cognitive linguistics can also help to study Ukrainian linguistics, as it operates on universal principles of working with concepts, language, and consciousness.

Another challenge is the breadth of application of cognitive linguistics methods in shaping the students' language worldview. For instance, the case study method is a thoroughly described cognitive linguistics method with proven practical value. However, this approach encompasses various methods that can be effectively implemented in educational activities. Furthermore, the case study method involves dividing students into small groups, but in practice, an instructor may propose a single case for discussion by the entire group or assign a unique case to each student.

Thus, it can be observed that cognitive linguistics is only partially implemented in practice, leading to various challenges. Consequently, this topic requires more detailed analysis.

5. Conclusions

During the study, the authors found that cognitive linguistics is a field of philology that involves exploring language through the analysis of human consciousness. The article revealed the role of cognitive linguistics in developing communicative competence and forming students' linguistic personalities. The authors emphasized the practical value of cognitive linguistics.

The essence of the concept of "cognitive linguistics" was elucidated in the article. The importance of cognitive linguistics for the development of modern linguistics was justified. It was found that cognitive linguistics is a new direction in linguistics that reflects the connection between language, thought, and culture. This direction has a long history, contributing to its research relevance. Various types of thinking, such as abstract, professional, critical, fast, and systemic thinking, were identified as being formed through applying cognitive linguistics in the educational process. The authors also described the main characteristics of this direction.

The practical value of cognitive linguistics in developing students' communicative competence was revealed. It was established that the practical value of cognitive linguistics lies in developing new forms of thinking in students and their communicative realization in the linguistic environment. Accordingly, the principles of cognitive linguistics used in organizing the educational process are anthropocentrism, cognitivism, expansionism, and explanativeness.

Special attention was given to the case method as a key methodology of cognitive linguistics implemented in the educational sphere. The article characterized the methods of forming students' communicative competence by applying cognitive linguistics. It was emphasized that cognitive linguistics is realized primarily through the student's life experience and the correlation of various subject areas and through the establishment of differences between different phenomena. It was determined that the awareness of different types of thinking occurs through the student's cognition and self-discovery.

The mechanisms of applying cognitive linguistics in forming students' linguistic personalities were described. The linguistic personality of the student is realized through a detailed assimilation of the structure of the concept. The main types of concepts used in the speech were identified. It was determined that the components of the concept significantly influence its perception and are multilevel. All of this allows for a clearer perception of the linguistic picture of the world and the formation of the student's linguistic personality.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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An adaptive system of teaching a foreign language to students of pedagogical specialties: European experience

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Abstract The individual characteristics of foreign language acquisition among students of pedagogical specialties and the selection of adaptive technologies considering these characteristics are examined in the article. An analysis of studies by methodological researchers that explores the psycho-physiological features of students' memory, thinking, attention, and the emotional sphere is provided. The article presents data on training students in pedagogical specialties based on the authors' developed learning model, utilizing adaptive educational technologies that consider individual language learning styles. Adaptive technologies such as communicative and audio-visual methods (AVM), personalized learning technologies, control-corrective teaching technologies (CCTT), business games, and adaptation-expansion-variation (AEV) learning technologies by both domestic and foreign authors are discussed. It is proven that students possess significant potential in intelligence and personality for effectively acquiring a foreign language in intensive learning conditions. For teachers, it is vital to select the appropriate adaptive technologies based on each student's group and individual characteristics. At the same time, educational institutions need to implement specific measures to support existing motivation and identify personal student traits that actively influence the learning process. Existing research conducted both in our country and abroad (mainly focusing on adaptive information systems) does not provide unanimous consensus on the effectiveness of the adaptive approach. Whether this is due to shortcomings in the conducted studies or the limitations of adaptive technologies remains to be seen as the adaptive approach is still in development. However, this method has shown effectiveness for students with certain levels of knowledge, skills, language abilities, and motivation when learning any foreign language. Other researchers in teaching foreign languages in pedagogical institutions can consider these results and develop their own variations of educational content within the framework of standard discipline programs. The more such studies are conducted, the faster this field of educational technology will be developed and the more promising its application will become clear. Additionally, the study can be extended toward developing electronic platforms based on existing content.

Keywords: adaptive teaching, European experience, foreign language, primary school teacher, secondary school teacher, trauma-informed pedagogy

1. Introduction

The necessity of using information and communication technologies in professional activities, which enhance the possibilities of foreign language communication, increases the number of students learning a foreign language. Teaching students of pedagogical specialties based on the model of teaching developed by the article's authors is conducted throughout the entire study period by applying adaptive educational technologies and considering the individual style of foreign language acquisition. Implementing the general educational program involves creating variable and invariant learning conditions for student-teachers. The variant conditions include the identification and accounting of individual learning styles of student-teachers. These styles are identified through psychological and pedagogical testing and adaptive educational technologies (a complex of adaptive technologies and methods). The invariant learning conditions include the identity of the requirements for conducting previous sections, which determine the student's level of knowledge, the number and content of tasks, assessment criteria, and materials used for learning: textbooks and additional materials such as texts, series of exercises, and audio texts.

Considering the educational needs of student-teachers, the priority is achieving mandatory effectiveness, ensuring the attainment of this result, which improves their quality of life to some extent. As research suggests, they learn what they need, while an adult, under compulsory conditions, may agree to less effective learning, perceiving it as formal. The results can vary, including strict, standardized knowledge, acquisition of necessary skills, skill mastery at an automated level, essential

understanding of professional or universal phenomena, new perspectives, and broadening horizons. All of this and more should be guaranteed to any adult learner to the extent they require it, and they should be able to acquire it as personal assets "here and now."

When approaching the teaching process of student-teachers, it is necessary to be prepared because their learning is more complex than children's one. Student-teachers have certain advantages over children, making their second language acquisition more successful. These advantages include high cognitive potential and education (especially in individuals with higher education), erudition, developed intelligence, and increased motivation and self-regulation.

This study proposes developments in the field of individualizing foreign language learning in pedagogical universities, which could serve as a basis for synthesizing individual learning trajectories and online platforms in the future.

2. Literature Review

At the stage of information technology development, creating adaptive systems in the pedagogical sphere is not difficult. However, implementing an adaptive approach requires revising existing standards and curricula, including foreign language ones (Briggs and Anderson 2019), (FitzGerald et al 2018), (Dagger et al 2002), (Chrysafiadi et al 2018), (Chiu et al 2017).

For this reason, adaptive systems have been tested and implemented as a supplement to traditional forms of education, mainly in Western universities. Implementing the adaptive approach was expected to increase students' motivation to learn, desire to continue their studies, and learning efficiency (Wang and Liao 2011), (Udovychenko et al 2021), (Strayer 2011).

However, today, there is little evidence of the adaptive approach's effectiveness. Among the main ones are the works of Newman and co-authors (Newman et al 2013), (Higgins et al 2008), (Semenets-Orlova et al 2022), (Semenets-Orlova et al 2022), (Oxman and Wong 2014), (Nabizadeh and Gonçalves 2020), (Kirschner 2017), (Iatsyshyn et al 2020).

Many researchers refer to personalized learning paths, i.e., the basis of adaptive learning, as person-centered, student-centered, cooperative learning, on the one hand, or software development, on the other. However, neither scientific strategy fully defines what an adaptive approach in modern pedagogy means (Alekseieva et al 2022), (Johanes and Lagerstrom 2017). Therefore, the adaptive approach modifies the existing educational base, adjusting it to the needs of a particular student or students group according to educational content, planned schedule, and teaching and assessment materials, as set out in the state standard and curriculum (Martin and Markant 2020), (Ladonko et al 2023), (Kryshtanovych et al 2022), (Kosharna and Petryk 2022), (Kosharna et al 2022), (Kosharna et al 2022).

One of the challenges is the complexity of constructing an accurate student model due to the subjectivity of various characteristics that are attempted to be identified through learning style testing, perceptual learning styles, and information processing types. The identification of such styles or types (David Kolb's model, Peter Honey, and Alan Mumford's model, learning modalities, Neil Fleming's VAK/VARK model, Felder-Silverman model, Anthony Gregorc's model, cognitive approaches, NASSP model, learning styles by Honey and Mumford) has been criticized, leading the scientific community to conclude the inadequacy of learning style theories. Yu. Wang and H.K. Liao proposed other criteria for teaching English, including gender, levels of learning motivation, and two cognitive learning styles, intellectual and sensory, which determine the optimal learning sequences (Chen et al 2005), (Jones et al 2013), (Brown et al 2020), (Bernard et al 2015), (Bakhov et al 2021), (Akimova et al 2022).

Hence, this problem remains even more relevant due to the wartime incidents.

3. Materials and Methods

The study employed various general scientific methods, including comparative, comparative-contrastive, analytical, historical, and others. The research was conducted using a combination of comprehensive methods that ensured the effectiveness and scientific validity of the research results. The theoretical approach involved analyzing, systematizing, and comparing scientific and pedagogical literature provisions to elucidate the state of the investigated problem and understand the essence of reflecting and implementing educational technologies in the teaching and learning process. Generalization and systematization methods were employed to substantiate the theoretical foundations of the research. The pedagogical observation was used to asses future language teachers' readiness levels after implementing a series of activities.

3. Results and Discussion

A personalized educational trajectory implemented in information systems entails adapting learning materials' content and/or tasks and/or sequencing. None of the developed educational systems adapt all three components. However, since this research is empirical and focuses not so much on creating a computer system as on its theoretical basis, the potential adaptation of all three components—content, tasks, and sequencing—is considered here.

Computer systems refer to the ability to tailor the curriculum to each student. However, the curriculum is stable in domestic higher education institutions, and adapting any component can only be done within its framework.

Another important point is that adaptive courses may imply self-paced online learning. In the case of self-study, creating an individual learning trajectory is much simpler. For example, the mastery of a new topic can occur only after the previous one has been mastered. In a higher education institution's rigid curriculum, such a flexible system cannot be implemented during class hours. Less successful students are offered more independent work through an adaptive system in such cases.

Within this understanding of the adaptive approach, pedagogical, subject domain, and student models are necessarily created. The pedagogical model encompasses methods, questions, prompts, and assessment of acquired knowledge - all of which adapt the learning to the individual student. The subject domain model refers to a hierarchical and structured knowledge base with rules for progressing through each level. The student model involves developing and adjusting individual learning trajectories based on test results, including cognitive-psychological assessments.

In applying the adaptive approach described in this article, fully individualized learning is problematic. Therefore, the experimental group is divided into three subgroups: weak, average, and strong. Accordingly, an adaptive method model was created, and its experimental verification was conducted.

Due to this circumstance, the adaptation model discussed in this article will not include testing for information perception types/learning styles. However, students are offered diverse learning materials that cover all potential information perception characteristics of pedagogical students. For example, written texts and oral explanations can be combined with images, objects, videos, and blackboard work. The standard material explanations can be combined with innovative, associative formulations presented differently, starting with a general overview and gradually examining details. Written assignments can be combined with oral activities such as dictations, discussions, and role-playing.

Some of the challenges associated with adaptive systems in general and the specific model under consideration include:

− The project cost is due to the expenditure of a significant amount of time, finances, and human resources. The basis for creating an adaptive system includes many multi-level educational materials and several pathways for its progression. It requires extensive preparatory work separate from teaching. The absence of an adaptive model for foreign language learning in a pedagogical institution (where courses have already been designed for chemistry, anatomy, physiology, history, economics, mathematics, management, biology, programming, and social sciences) is linked explicitly to the energy-intensive nature of developing such a model.

− Limited classroom hours pose specific difficulties if the student population within a group is heterogeneous in terms of their knowledge, skills, abilities, and psychocognitive characteristics.

The model of an adaptive approach to foreign language learning in a pedagogical university involves creating an algorithm or schedule according to which individualized learning occurs. The scholars propose different criteria for selecting a particular learning pathway according to the algorithm. Such criteria include foundational knowledge, visual, auditory, and kinesthetic learning styles, task types, complexity, and learning goals.

The proposed algorithm of the adaptation model consists of the following stages:

1.   Identification of the adaptation object - theory, texts, exercises, tasks. Since foreign language teaching in pedagogical universities is usually based on a fixed program, the adaptation objects remain more or less unchanged, with modifications made only to their complexity and sequence of presentation. Thus, texts, exercises, and tasks are presented in three versions - simplified, standard, and advanced - but based on the same material. The variations differ in the presence/absence of specific grammatical and lexical difficulties and nuances. Additionally, the simplified version allows immediate attention to verbal and grammatical problems and their prompt resolution.

2.   The entrance test determines the student's level of preparedness and identifies the areas of unknown knowledge that will be studied. It also identifies the student's psycholinguistic characteristics, which form the basis for designing the trajectory of learning new material. The entrance test includes the following:

− Lexical and grammatical tests to assess the student's knowledge, skills, and personal challenges.

− Test to assess the student's language learning abilities, such as the ability to comprehend knowledge, acquire skills, and apply them in practice, as well as the ability for analysis and synthesis.

− Test to evaluate the student's level of motivation.

− Time recording during the tests indicates a particular psychological personality type that affects the speed of information perception during classes.

3.   All four tests are combined into a single test offered to the students. The maximum score for the entrance test is 100 points. Students who score 81-100 points are assigned to the advanced subgroup of the experimental group, those who score 65-80 points are given to the intermediate subgroup, and those who score below 65 points are assigned to the weak subgroup. It is important to note that the tests should be designed so that only one answer is correct for each question.

4.   Division of students into experimental and control groups. This division is arbitrary and does not consider any group parameters. Based on the results of the entrance testing, the experimental groups are further divided into three subgroups, which may have different sizes but are relatively homogeneous in terms of the characteristics mentioned above.

5.   Proposing to all three subgroups the study of similar materials with different levels of complexity (short and simplified presentation of the material, more detailed and complex expression, careful consideration of various lexical and grammatical nuances). The material studied between two tests can be referred to as a module.

6.   Intermediate testing evaluates the level of preparation based on the completed module. The test offers visual, audio, and video materials covering different psychological information perception types.

7.   If a student scores less than 50 points on the test, additional tasks are given for revising the previous module, followed by retesting.

8.   If the test is successfully passed, the student is assigned a more challenging task to determine their current level. With high scores, the student moves to a stronger subgroup of the experimental group. Scoring between 50-65 points keeps the student in the weak subgroup or transfers them from the stronger subgroup. In this case, additional tasks for module revision are provided.

9.   Study the next module according to the aforementioned conditions.

10.   Intermediate testing continues following the abovementioned conditions until the final assessment.

The experimental subgroups were offered different versions of the approved training material. The standard training materials were modified to focus on the three selected subgroups. As this article cannot provide the entire course in an adaptive form, small text fragments and exercises are presented here as examples, one per task.

Lexical and grammatical tests are adapted to the particular learning material.

Regarding the assessment of time spent on taking the tests, if a student has a slow information perception rate and simultaneously achieves results other than "excellent" on the tests, they are placed in the weak subgroup. If students have a slow information perception rate but achieve good test results, they are placed in the average subgroup. If a student has a standard or accelerated information perception rate and reaches good or excellent test results, they are placed in the advanced subgroup.

Modern pedagogy constantly strives for innovation, including in foreign language training in technological universities, as it is understood that traditional methodologies do not always yield the necessary results for future professional activities. The latter can be attributed to the fact that each student entering a university brings their knowledge baggage and abilities to comprehend the material. Thus, an adaptive approach was created, where each learner follows their path, aligned with standards, curriculum, learning tasks, and the student's abilities to perceive and process information.

Two approaches emerge to address this task: simple individualized learning, on the one hand, and processing information about the student's needs, capabilities, and personal characteristics, and accordingly, machine-adjustment of the program for each student, on the other hand. The latter approach is more promising. Thus numerous computer platforms were created to implement the concept of electronic adaptive learning (Knewton, Smart Sparrow, MyLab, ALEKS, Cerego, CogBooks, Open Learning Initiative, Realizeit, Plario, Acrobatiq, McGraw Hill Education, Adapt Course /Connect, Intellipath, Fishtree, I-ready, DataCamp, Oefenweb, Pearson My Lab & Mastering, Dreambox). Such intelligent systems can analyze students' progress and synthesize a new variant of the training program tailored to their level of knowledge and their needs at the current stage of learning.

However, these platforms have not been popular in our country's universities. Additionally, they are primarily applicable to exact disciplines, and over time, it has been found that computer-adaptive course developments are not always necessary for students. For instance, adaptive information technologies are not needed for students with a high level of basic training, self-study effectiveness, and efficient self-monitoring. On the other hand, students within the same group may differ in terms of their level, requirements, and abilities. The standard program can only be applied to a part of the group. An adaptive approach without using information platforms can be applied to the rest of the students.

Based on the foregoing, the groups are formed following psychological and pedagogical testing results. It aims to determine the student's learning style and identify the dominant channel of new information perception. Typically, four groups of students are identified, differing in stylistic features of cognitive activity: "students-thinkers," "students-theoreticians," "student-pragmatists," and "student-activists." Each group of students has its own specific psycho-physiological learning characteristics.

Secondly, students are divided into groups based on the results of linguistic testing. It allows for determining the level of lexical-grammatical proficiency, the degree of logical expression, the pace and scope of speech, and the use of language clichés and patterns in the monologue speech of applicants. Practical observations show that students aged 27-33 demonstrate an average (Intermediate) and low (Pre-intermediate) level of foreign language proficiency. The students within the age range of 20-23, on the other hand, qualify for an intermediate ("Intermediate") and high ("Upper-intermediate") level of foreign language proficiency (23.4% - mostly students from other humanities faculties of BSU).

Further, it is necessary to focus on the technologies used in the authors' practice for teaching students. Recognizing the vast diversity of different technologies in modern foreign language learning processes, it is worth noting that the communicative teaching method holds a leading position in adaptive learning according to individual learning styles. It encompasses a wide range of techniques, tools, and forms of teaching. When considering the subjective relations between the teacher and students, the communicative method implements an orderly, systematic instruction of foreign languages. It largely determines the strength of knowledge retention.

Another communicatively oriented technology involves teaching based on synthesizing auditory and visual perceptions. The primary goal of the "audio-visual method" (AVM) is to develop a sensory foundation for language proficiency in learners.

This goal includes pictures, illustrations, graphics, diagrams, tables, tape recorders, slide and film strips, movies and videos, role-playing games, and more.

The effective utilization of visual mechanisms, such as repetition and contrast, ensures the repetition and contrasting of language phenomena and perceptions. The audio-visual method extends beyond structural frameworks and significantly emphasizes their application in various situations, achieving a communicative focus in teaching.

The next adaptive and highly suitable learning technology for heterogeneous groups can be considered the technology of individualized learning. This teaching technology involves an original lesson structure, where the first half of the lesson is dedicated to group learning, while the second half consists of two parallel processes: independent and individual work with the teacher. Thus, within the framework of the classroom-based system, approximately 60-80% of the teacher's time can be allocated for individual work with students who require more time to solve assigned tasks, while other students can engage in creative or practical assignments. The essence of these approaches lies in organizing students' work in different types of pairs: static, dynamic, and variational.

Business games (ethical and business-oriented), which represent a form of recreating the subject and social content of professional (societal, managerial, etc.) activities and modeling systems and experiences relevant to specific fields of human practice, can also be rightfully classified as adaptive learning technologies. Business games differ from other forms of learning in several ways:

– They involve the simulation of real-life socio-economic systems.
– The participants assume specific roles solely to gain experience in conflict resolution and make business decisions.
– Business games are always conducted as a collective learning method.

– They create an emotional atmosphere to enhance the learning process**.**

5. Conclusions

Therefore, based on the preceding, the student's intellect and personality have many reserve capabilities for effective foreign language acquisition in intensive learning. For the teacher, it is crucial to select adaptive technologies appropriately based on each student's group and individual characteristics. At the same time, educational institutions need to implement specific actions to support existing motivation and identify personal student traits that actively influence the learning process.

The studies conducted both in our country and abroad (mainly focusing on adaptive informational systems) differ in their views on the effectiveness of the adaptive approach. It remains unclear whether this is due to research limitations or the current state of development of adaptive technologies, as the adaptive approach is still in its early stages. However, this method has demonstrated its effectiveness for students with certain levels of knowledge, skills, language abilities, and motivation within the scope of learning any foreign language.

Ethical considerations

Not applicable

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Improvement of professional competencies and personnel competences in the BANI world on the example of civil servants through the development of their emotional intelligence

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Abstract Like in most countries around the world, Ukrainian civil servants were not prepared for the long-term changes caused by the COVID-19 pandemic and, in 2022, for operating under martial law conditions. The new realities forced them to adapt to the BANI world. A survey conducted among a sample of civil servants revealed that gender parity is not ensured in Ukraine's public service field, which became an additional research direction. The article presents the results of a research study based on a survey aimed at determining the influence of emotional intelligence on the competencies and capabilities of civil servants, with the efficiency of their work as the measuring criterion. The respondents evaluated the effectiveness of various forms and means of distance learning for different categories of civil servants. The study identified specific perspectives on work effectiveness based on components of emotional intelligence. Additionally, based on their experience, the survey participants recognized online training as an essential method for developing competencies and competences of civil servants. The research employed the following methods: theoretical analysis and synthesis of socio-psychological literature related to the research topic, psychodiagnostics, and statistical methods.

Keywords: personnel competencies, personnel competences, emotional intelligence, competencies improvement, civil servants, professional development

1. Introduction

In the BANI world (brittle, anxious, nonlinear, and incomprehensible), changes require employees of public services to acquire new skills and competencies to cope with complex situations and effectively solve tasks. The development of emotional intelligence can be a critical aspect that contributes to improving professional competencies and personnel competences.

Emotional intelligence encompasses the skills of understanding, managing, and utilizing emotions in oneself and others. Developing emotional intelligence can help civil servants work more effectively and achieve desired results in the BANI world, where unexpected changes and stressful situations arise.

The main elements of developing emotional intelligence for civil servants, as defined by the Hall method, include emotional awareness, self-emotion controlling, controlling the emotions of others, empathy, and self-motivation.

This study aims to identify the impact of the emotional intelligence development of civil servants on their work efficiency by improving their competencies and competences.

2. Literature Review

The world is constantly evolving and, therefore, changing. As a result, the concept of stability in the development of the SPOD world at the end of the last century was replaced by the concept of the VUCA world. This concept describes the modern world in terms of its characteristics and changes. The ideas of the VUCA world are characterized by volatility, uncertainty, complexity, and ambiguity. In 2017, scientists believed that the VUCA world could be a challenge for businesses, but it could also be seen as an opportunity for proactive and innovative companies that value interconnectedness and transparency. It was considered a perfect time for companies and organizations to focus on developing their worldview comprehensively and holistically to make the most of the opportunities presented by the VUCA world. It could be achieved by simplifying the context and integrating processes, internal drives, and external demands. Globalization has placed significant pressure on leadership and entrepreneurship at all company levels. It requires rapid decision-making, the necessary protection of the organization's

culture and mindset, and the ability to integrate a diversity of all kinds and foster collaborative innovation at speed required by the situation (Nandram and Bindlish 2017).

With the onset of the pandemic in 2020 and now the full-scale war in Ukraine, the world has been changing even faster, becoming the BANI. Almost no one speaks about plans for the year ahead anymore. The things that worked yesterday no longer work today. New technologies and rapid societal changes bring forth new challenges that seem insurmountable. The term "BANI" for the concept of the world's current development was proposed by James Casio, a leading researcher at the Institute for the Future (USA), in 2020.

The concept of the BANI world (Brittle, Anxious, Nonlinear, Incomprehensible) is a framework for formulating increasingly prevalent situations where simple volatility or complexity are low focal points to understanding what is happening. The BANI world is a world where conditions are unstable and chaotic. In this case, the results are not just difficult to predict but entirely unpredictable. In other words, if we use the specific language of these frameworks, situations where what is happening is not just ambiguous but incomprehensible.

Under such conditions, the need to establish the optimal ways of improving professional competencies and personnel competences becomes highly relevant. First of all, let us outline the main scientific approaches to conceptualizing the terms "competence" and "competency."

The views of scholars on the definition of "competence" and "competency" concepts are ambiguous: some equate them, while others support the idea that these categories are different personal formations. Therefore, despite the extensive research tradition, it is currently challenging to find a systematic interpretation of the concepts of "competence" and "competency."

The emergence of the "service approach" trend in public administration entails a transition from "obliging" to "providing" government. Consequently, the modern state's social essence largely relies on providing quality public services (Yescombe 2015; Johnsen and Howard 2014).

Nowadays, public servants need to constantly improve their competencies to make timely management decisions on the company's development, considering external changes. Therefore, the essence of the "competency" category and the set of competencies that a manager should possess to manage future business projects become crucial.

Competencies define observable behavior that successful performers demonstrate at work. This behavior results from various abilities, skills, knowledge, motivation, and traits that an employee may possess. Competencies are believed to be formed from skills and incorporated into workplace behavior. Such behavior demonstrates the ability to meet job requirements competently. Here is a simple formula to remember what competencies are (David S., 2018): Skills + Knowledge + Abilities = Competencies.

The key point of the "competence" concept has been studied by scientists from different countries at different times. Söderlund et al (2012) define competence as a certain level of knowledge that allows a manager to pass an exam or obtain a certificate and a set of social and technical skills. Wang and Ha-Brookshire (2018) argue that competence is an ability or skill that can be acquired and developed through professional experience, life experience, or education. Walker & Lloyd-Walker (2019) have forecasted the specificity of managerial work in 2030 and identified a set of foundational knowledge, skills, qualities, and practices required for managers in both technical ("hard") and virtual ("soft") spaces:

- Clear strategic and holistic thinking;
- Innovation-seeking;
- Divergent and convergent thinking;
- Adaptive leader-follower;
- Reflexive and empathetic communication skills;
- Technological skills;
- Stability and adaptability;
- Emotional intelligence (the ability to communicate);
- Systems thinking (technical skills).

During the digitalization era, digital competence is the main requirement for information-oriented work, which is the basis of civil servants' activity and training (Schuh et al 2018). Marnewick and Marnewick (2020) further developed this hypothesis and stated that digital literacy is one of the main competencies in Industry 4.0. Moreover, the central managerial competencies that a specialist should possess in the Industry 4.0 era include the following:

- Perception building;
- Novel and adaptive thinking;
- Unstructured problem solving;
- Critical thinking;
- Design thinking/creativity;
- Leadership and project management;
- New media/digital literacy;

− Emotional intelligence;
− Social intelligence.

3. Materials and Methods

The main goal of the survey was to determine the peculiarities of the influence of emotional intelligence on the effectiveness of civil servants' work through enhancing their competencies and competences, as well as to identify the advantages and disadvantages of different forms of qualification improvement. The survey was conducted using Google Forms, the link to which was shared via social media and email.

The methods of statistics were used in this study. Specifically, data reduction and grouping methods and visualization techniques were used to construct distribution tables based on age, gender, and civil servant category. Descriptive statistical methods were applied to characterize the created distribution tables. The method of hypothesis testing employing the chi-square criterion was used to identify the existence of interdependence of performance evaluation (application of competencies and competences), the effectiveness of advanced training, and the category of a civil servant, as well as the gender of a civil servant. An analysis of variance was used to confirm the statistical significance of reasoning about the differences in performance evaluations by different categories of civil servants.

3. Results and Discusion

The total number of respondents who participated in the survey was 399, among whom there were 254 women and 145 men. For further research, we will distinguish categories of civil servants: 9 in the A Category, 97 in the B Category, and 293 in the C Category. Overall, women prevailed among the surveyed civil servants (63,7%). An analysis of the selected respondents by gender shows that there is a lack of gender parity in the highest and lowest categories of civil servants: men predominate among civil servants in the A category (88,9%), while women are the majority of civil servants in the B category (70,6%) Figure 1.
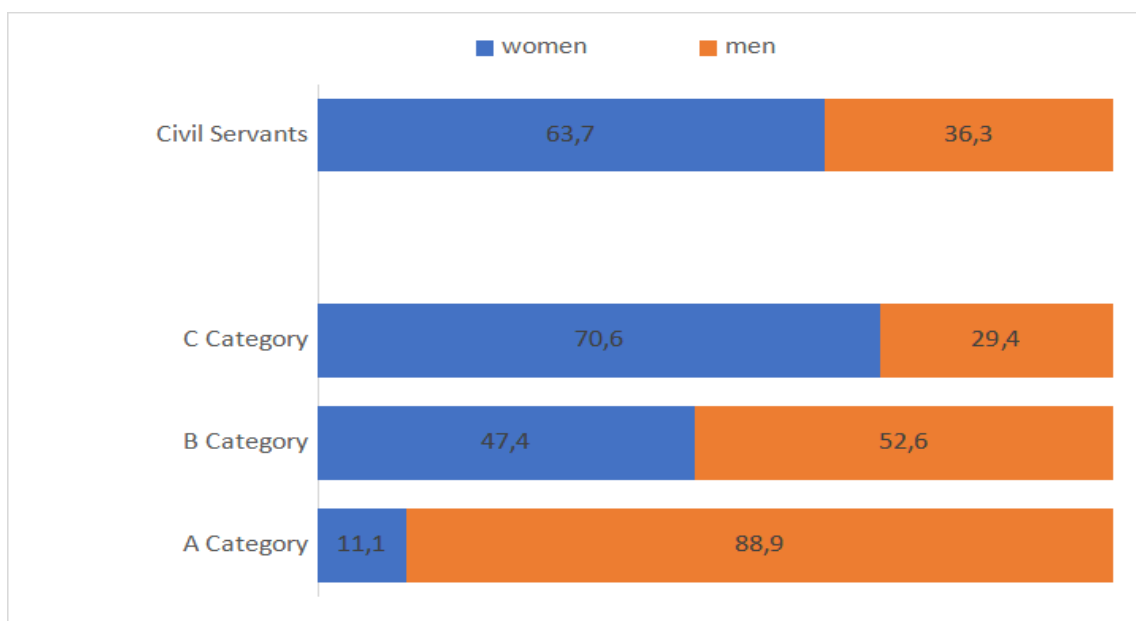

Figure 1 Gender and category distribution of civil servants. Source: author's elaboration.

The majority of respondents (68%) belonged to the age category of 33 to 57 years. However, it should be noted that due to the category of 35-66 years, the average age of survey participants is almost 42 years; the modal age is 48 years, and the median age is 43 years. Thus, half of our respondents were below the age of 43, and 25% of the respondents were younger than 30 years. The box plot distribution of survey participants (Figure 2) demonstrates that 50% of respondents were between 30 and 55 years old.

Let us take a closer look at evaluating civil servant performance in the context of groups and components of emotional intelligence. The data obtained from the responses of each participant category in the survey were systematized and statistically analyzed.

The following hypotheses were tested to determine the existence of a relationship between the assessment of the performance of civil servants and their categories:

H0: The evaluation of a civil servant's performance (emotional intelligence component - emotional awareness) is not dependent on the civil servant's category.

H1: The evaluation of a civil servant's performance (emotional intelligence component - emotional awareness) is dependent on the civil servant's category.
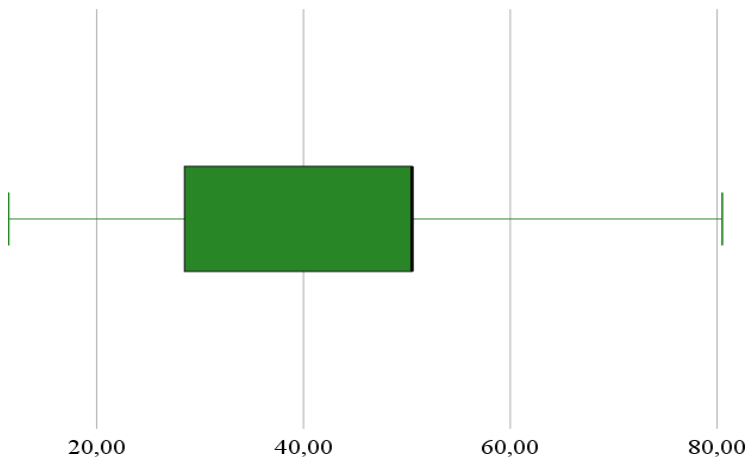

Figure 2 The box plot of the survey participants' distribution by age categories.

Table 1 presents the distribution of responses regarding the performance of a civil servant (emotional intelligence component - emotional awareness).

Table 1 Correlation between the evaluation of civil servant performance (emotional intelligence component - **emotional awareness**) and the category of civil servant.

Evaluation	A Category	B Category	C Category	Total
1	1	6	13	20
2	0	7	25	32
3	2	15	50	67
4	4	25	66	95
5	2	44	139	185
Total	9	97	293	399

As a result of applying the χ2, its calculated value χ2p = 5,4 was obtained. At a significance level of 0,05, the corresponding critical statistic is χ2т = 15,5, which allows us to accept the null hypothesis.

Therefore, with a probability of 95%, we can conclude that there is no influence of the category of civil servants on the evaluation of their job performance through the component of emotional intelligence - emotional awareness. On average, all survey participants rate job performance through the component of emotional intelligence - emotional awareness at around 3,9 points.

The distributions of respondents' opinions on the effectiveness of civil servants' work (emotional intelligence component - emotions control) were slightly different (Table 2).

The verification of the hypothesis that there is no relationship between the assessment of civil servant's performance through the component of emotional intelligence of controlling their emotions and the category of the respondent with a probability of 95% makes it possible to assert that there is an influence of the category of civil servants on their performance assessment (emotional intelligence component of controlling their emotions), since χ2p = 16,5 > χ2т = 15,5.

Table 1 Correlation between the evaluation of civil servant's performance (emotional intelligence component - **emotions control**) and the category of civil servant.

Evaluation	A Category	B Category	C Category	Total
1	1	5	12	18
2	1	8	18	27
3	1	14	48	63
4	1	31	76	108
5	5	39	139	183
Total	9	97	293	399

Additionally, the category of civil servant explains 18% of the variation in performance evaluations (emotional intelligence component of controlling their emotions). Therefore, with a 95% probability (even 99%), we can assert that civil servants of the A Category, on average, rate their performance (emotional intelligence component of controlling their

emotions) at 3,8, civil servants of the B Category - at 3,9, and civil servants of the C Category - at 4,1 out of 5. (The calculated value of Fisher's F-criterion is 6,6, p-value = 0.001).

The results obtained for assessing the performance of a civil servant (emotional intelligence component - controlling the emotions of others) were also different (Table 3).

Table 2 Correlation between the evaluation of civil servant's performance (emotional intelligence component - controlling the emotions of others) and the category of civil servant.

Evaluation	A Category	B Category	C Category	Total
1	0	17	31	48
2	1	16	66	83
3	2	21	78	101
4	3	20	75	98
5	3	23	43	69
Total	9	97	293	399

The application of Pearson's chi-square criterion $\chi2p = 16,3 > \chi2т = 15,5$ with a 95% probability allows us to conclude that the assessment of the performance of a civil servant (emotional intelligence component - controlling the emotions of others) depends on the category of the civil servant. The lowest performance of a civil servant (emotional intelligence component - controlling the emotions of others) was rated on average at 3,1 by the B Category of civil servants. In contrast, the highest was rated at an average of 3,9 by the A Category of civil servants (Table 4). The C Category of civil servants rated their performance (emotional intelligence component - controlling the emotions of others) at an average of 3,2 on a 5-point scale. It has also been determined that the category of the civil servant explains 19% of the variation in performance ratings (emotional intelligence component - controlling the emotions of others). (The calculated value of Fisher's F-criterion is 7,67, p-value = 0,001).

Table 3 Correlation between the evaluation of civil servant performance (emotional intelligence component - empathy) and the category of civil servant.

Evaluation	A Category	B Category	C Category	Total
1	1	3	11	15
2	2	9	12	23
3	2	19	43	64
4	2	24	83	109
5	2	42	144	188
Total	9	97	293	399

At a significance level of 0,05, taking into account Pearson's criterion, where $\chi2p = 13,2 < \chi2т = 15,5$, we can conclude that the assessment of the efficiency of a civil servant's work (emotional intelligence component - empathy) is not dependent on the category of the civil servant.

The data on the survey regarding the effectiveness of a civil servant's work (emotional intelligence component - self-motivation) and the category of the civil servant are presented in Table 5.

Table 5 Correlation between the evaluation of civil servant performance (emotional intelligence component - **self-motivation**) and the category of civil servant.

Evaluation	A Category	B Category	C Category	Total
1	0	1	22	23
2	1	8	49	58
3	1	11	58	70
4	1	13	64	78
5	6	64	100	170
Total	9	97	293	399

Hypothesis testing regarding the absence of a correlation between the performance evaluation of a civil servant (emotional intelligence component - self-motivation) and the category of a civil servant with a 95% probability allows us to assert that there is an influence of the civil servant category on their performance evaluation (emotional intelligence component - self-motivation), as $\chi2p = 34,4 > \chi2т = 15,5$. The civil servant category accounts for 22% of the variation in performance evaluations (emotional intelligence component - self-motivation). Civil servants in the A and B Categories receive the highest performance ratings (4,3 out of 5), while those in the C Category receive an average of 3,6. The statistical significance of these findings is confirmed by applying an analysis of variance (The calculated value of Fisher's F-criterion is 9,87, p-value = 0,000 < 0,05).

We also investigated the correlation between civil servant performance effectiveness based on emotional intelligence components and their civil servant status Table 6.

Table 6 Assessment of the correlation between civil servant's performance by components of emotional intelligence and gender.

	Chi-squared calculated value χ2p	Critical (tabulated value) χ2	Acceptance/rejection of the null hypothesis
Emotional awareness	21,0	11,1	Rejecting
Controlling own emotions	15,0	11,1	Rejecting
Controlling the emotions of others	1,1	9,5	Accepting
Empathy	6,5	11,1	Accepting
Self-motivation	24,7	11,1	Rejecting

Applying the χ2 criterion with a 95% probability allows us to conclude that components of emotional intelligence, such as emotional awareness, emotion regulation, and self-motivation, have different effects on performance evaluation for men and women. Specifically, women tend to rate work effectiveness higher regarding emotional awareness and emotion regulation. The performance evaluations influenced by components of emotional intelligence are as follows for women/men:

− emotional awareness - 2,8/2,4;
− self-emotion controlling - 3,4/2,9;
− controlling the emotions of others - 3,2/3,3;
− empathy - 3,4/3,3;
− self-motivation - 3,9/3,5.

An essential aspect of developing the competence of civil servants is enhancing their qualifications. The analysis of survey results revealed the most effective training methods as rated by the participants (scored "4"/"5" respectively):

− Incorporating mobile applications into the educational process (39,7% / 25,5%);
− Utilizing web services for conducting online sessions with video communication support from the teacher (33,4% and 32,7%);
− Educational platforms for organizing online learning were deemed the most effective by respondents (31,3% / 40%).

The following hypotheses will be tested to determine whether there are differences in the assessment of the effectiveness of different distance learning tools and the category of civil servant:

H0: The effectiveness ratings of distance learning methods are independent of the category of a civil servant.

H1: The effectiveness ratings of distance learning methods depend on the category of civil servants.

The results of the χ2 criterion calculations are presented in Table 7.

Table 7 Assessment of the correlation between the effectiveness of distance learning tools and the category of civil servant.

Distance learning tools	Chi-squared calculated value χ2p	Critical (tabulated value) χ2	Acceptance/rejection of the null hypothesis
Email	11,6	15,5	Accepting
Mobile Apps	8,9	15,5	Accepting
Web services for online sessions (Zoom, Google Meet, etc.)	7,3	15,5	Accepting
Open online course platforms (Coursera, Ed-Era, Prometheus, Khan Academy, iLearn, etc.)	13,6	15,5	Accepting
Educational platforms for organizing online learning (Moodle, Google Classroom, TIMC, etc.)	20,8	15,5	Rejecting
Different types of training	37,0	15,5	Rejecting

The application of the χ2 criterion with a probability of 95% allows us to conclude that the assessment of the effectiveness of using distance learning tools such as email, web services for online sessions, and open online course platforms does not depend on the category of a civil servant. However, statistically significant differences were found in the assessment of the effectiveness of using educational platforms for internet-based learning and various types of training. Specifically, the use of educational platforms for internet-based learning is rated on average at 3,3 by the A Category of civil servants, 3,6 by the B Category of civil servants, and 4 by the C Category of civil servants.

At this stage, we also examined differences in the assessments of the effectiveness of distance learning tools based on the gender of the civil servants. The following hypotheses were tested:

H0: The assessment of the effectiveness of distance learning tools does not depend on the gender of the civil servant.

H1: The assessment of the effectiveness of distance learning tools depends on the gender of the civil servant.

The results of the χ2 criterion calculations are presented in Table 8.

Table 8 Assessment of the correlation between the effectiveness of distance learning tools and the category of civil servant.

Distance learning tools	Chi-squared calculated value $\chi 2p$	Critical (tabulated value) $\chi 2$	Acceptance/rejection of the null hypothesis
Email	4,6	9,5	Accepting
Mobile Apps	4,8	9,5	Accepting
Web services for online sessions (Zoom, Google Meet, etc.)	3,0	9,5	Accepting
Open online course platforms (Coursera, Ed-Era, Prometheus, Khan Academy, iLearn, etc.)	3,1	9,5	Accepting
Educational platforms for organizing online learning (Moodle, Google Classroom, TIMC, etc.)	7,0	9,5	Accepting
Different types of training	3,5	9,5	Accepting

The application of the χ2 criterion with a 95% probability indicates that the evaluation of the effectiveness of distance learning tools does not depend on the gender of the civil servant.

Our research confirms the established direct relationship between the level of emotional intelligence of civil servants, their motivation level, and engagement (Levitats et al 2019). However, the study does not demonstrate the correlation between motivation, engagement, task performance, and, therefore, the effectiveness of civil servants, which we could display.

We have also confirmed and expanded on the results obtained by Asieieva and Trynchuk (2021) (which demonstrate how to determine the level of emotional intelligence) and were able to identify the relationship between individual components of emotional intelligence and the effectiveness of the civil servants' work. The research conducted by Noermijati and Indah (2019) is closest to our results, as it establishes that emotional intelligence significantly influences the performance of civil servants. However, their study was conducted only among the civil servants of the lowest rank, while we demonstrated the existence or absence of an impact depending on the category of civil servants.

5. Conclusions

The survey of civil servants regarding the impact of developing their emotional intelligence on the effectiveness of their work through the improvement of competencies and competences took place against the backdrop of their first-hand experience under martial law, which confirms the reality of the BANI world. A thorough statistical analysis of the data was conducted, allowing for integral conclusions to be drawn.

It has been confirmed that regardless of the category of civil servants, they all assess the effectiveness of their work through the component of emotional intelligence, specifically emotional awareness, which is relatively low, at around 3,9 on a scale of 5. The civil servants of the A and B categories consider the effectiveness of their work (emotional intelligence component - self-motivation) to be the highest, with a rating of 4,3 out of 5.

Therefore, with a 95% (even 99%) probability, we can assert that civil servants of the A Category, on average, assess the effectiveness of their work (emotional intelligence component - controlling their own emotions) at 3,8, civil servants of the B Category - at 3,9, and civil servants of the C Category - at 4,1 out of 5. (The calculated value of the Fisher's F-test is 6,6, p-value = 0,001).

The lowest effectiveness of work among the civil servants (emotional intelligence component - controlling the emotions of others) was rated at an average of 3,1 by the civil servants of the C Category. At the same time, the highest rating was given by the A Category of civil servants, with an average of 3,9. The civil servants of the B Category rated the effectiveness of work (emotional intelligence component - controlling the emotions of others) at an average of 3,2 on a 5-point scale. It was also established that the category of civil servant explains 19% of the variation in ratings of work effectiveness (emotional intelligence component - controlling the emotions of others). (The calculated value of the Fisher's F-test is 7,67, p-value = 0,001).

At a significance level of 0,05, taking into account Pearson's chi-square criterion, where χ2p = 13,2< χ2т = 15,5, we can state that the evaluation of work effectiveness of civil servants (the component of emotional intelligence, empathy) does not depend on the category of a civil servant.

The category of civil servant explains 22% of the variation in ratings of work effectiveness (the component of emotional intelligence - self-motivation). The highest ratings for work effectiveness were given by the civil servants of the A and B Categories (4,3 out of 5), while the C Category of civil servants rated it at an average of 3,6. The statistical significance of such considerations is confirmed by the application of analysis of variance (ANOVA). (The calculated value of Fisher's F-test is 9,87, p-value = 0,000 < 0,05).

Statistically significant differences in the evaluations of men and women regarding the effectiveness of civil servants' work in terms of emotional awareness, emotional self-management, and self-motivation can be explained by our society's

"patriarchal" nature. As we can see, women make up only 11% of the A Category of civil servants. Specifically, we have shown that women rate work effectiveness higher regarding emotional awareness and self-management. The evaluations of work effectiveness influenced by components of emotional intelligence, as indicated by women/men, were as follows:

  – Emotional awareness - 2,8/2,4;
  – Self-controlling - 3,4/2,9;
  – Controlling the emotions of others - 3,2/3,3;
  – Empathy - 3,4/3,3;
  – Self-motivation - 3,9/3,5.

An important aspect of civil servants' activities is the requirement to improve their qualifications. The National Agency for Civil Service proposes various forms of qualification enhancement, including training, educational courses, and self-education courses. In the BANI world, the opportunity for distance learning is extremely important. In this regard, we have investigated the preferences of civil servants regarding the proposed means of distance learning through the prism of the civil servant category and gender. Statistically significant differences in evaluating the effectiveness of using educational platforms for organizing online learning and various types of training have been identified. Specifically, using educational platforms to manage online learning is rated by the A Category of civil servants on average at 3,3, the B Category - at 3,6, and the C Category - at 4.

The application of the χ2 criterion with a 95% probability indicates that the evaluation of the effectiveness of using distance learning tools does not depend on the gender of the civil servant.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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Special Issue: Socio-educational, political, and economic relations in Ukraine

Innovative approaches and methods in language and literature education professional training

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Abstract The article explores various innovative teaching technologies for the Ukrainian language and the appropriateness of their use to enhance students' knowledge quality and develop their intellectual and linguistic abilities. Presently, the demand for specialists in the labor market and their competitiveness largely depend on competent speech (oral and written), the ability to communicate effectively, knowledge of language influence techniques, and persuasion. It is noted that societal needs are changing, which require a teacher to be an innovator and researcher capable of critical thinking. However, there is a limited number of developed innovative technologies focused on fostering the individuality of future professionals. The article examines innovative educational approaches that are advisable to prepare future professionals, their impact on the professional training of language teachers, and the dilemmas that arise in current educational conditions. It is proven that experts analyze the development of various directions in contemporary education and science and also contribute to future changes in the reform of future teacher training systems. There is a continuous exchange of ideas, experiences, and knowledge on many modern education and science issues. Higher education teachers use the progressive experience of national and foreign scientists and introduce effective, innovative technologies and teaching methods to improve the education of future language teachers at the current stage of education and science development. The discussed content of innovative technologies and their role in the methodological training of present-day language teachers are oriented toward forming and improving professional competencies. The described technologies can be used in teaching various subjects within the philological cycle. It will help develop a conscious readiness of future language teachers to implement innovative approaches in the school practices of secondary education institutions. The use of innovative technologies helps address educational and developmental tasks, such as activating students' mental activities and implementing individualized learning. These will help to save learning time for further use, ensure controllability and predictability of results, utilize the best practices from worldwide educational experiences, and create conditions for the practical application of the potential abilities of future language teachers. Innovative technologies effectively implement important didactic principles of linguistic education, such as scientific nature, visuality, accessibility, and autonomy.

Keywords: language education, literature education, innovative approaches, innovative methods, language competence, literature competence

1. Introduction

Institutions of secondary education in the XXI century are awaiting a teacher who utilizes comprehensive and systematic knowledge of language and literature in their professional practice, possesses a new approach to teaching, is a cultured individual and a catalyst for democratic changes, capable of shaping the national traits of young citizens of our country. At the same time, the rapid flow of information and technological changes in today's world, emphasizing personalized methods, require a paradigm shift in the phenomenon of education, the strengthening of the cultural foundation of society, and the development of skills to mobilize personal potential. These changes necessitate crucial transformations in the language and literature teacher training system's educational, scientific-practical, and research components.

It should be noted that the traditional education system does not correspond to the global socio-cultural changes in Ukraine. It leads to certain contradictions between education and the current social demand. For example, the teaching profession requires creativity and significant innovation. However, the curriculum in higher education institutions is poorly focused on creativity. The requirements for a teacher's personality are increasing yearly, while there is a lack of clearly defined requirements for students of philological faculties.

The Ukrainian language is an academic subject with highly high cognitive value. During these classes, thinking skills are developed, a sense of love for the native language is instilled, general values are comprehended through language, and individuals are nurtured. Through language, the intellectual development of professionals occurs, as well as the assimilation of

all other academic disciplines. The humaneness of society, expressed through language education, lies in the desire to broaden the boundaries of knowledge and raise the bar of intellectual development for professionals.

The traditional educational system needs to catch up to the needs of society. The concept of modern education has defined the purpose of a teacher's professional activity as the formation of students' ability to successfully socialize in the community and actively adapt to the labor market. As a result, the development of innovative teaching technologies has emerged. Innovative methodologies are characterized by a new style of organizing educational and cognitive activities. Contemporary educators recognize that problem-based learning technology offers maximum opportunities for developing creative abilities and intellectual activities.

This article aims to identify innovative approaches to preparing language and literature teachers in the current realities of Ukrainian society.

2. Literature Review

Various scholars have made a significant contribution to the disclosure of intellectual development, problem-based and developmental learning (Fetiukova and Telekhova 2018), (Savchenko 1997), (Potapenko 2006). Our study relies on two strategies: those directly influencing learning and supporting the learning process. The first group includes cognitive strategies used for comprehension of material, memorization strategies for retaining information in memory, and compensatory strategies to help overcome difficulties that arise during communication (Petrychko 2020), (Kucheruk 2007), (Kochan 2008). The second group encompasses strategies related to creating learning conditions that facilitate overcoming psychological challenges in language acquisition (Konovets 2011), (Kovalova 2009), (Kovalenko 2017), (Karnaukh 2005). In the scientific literature, the issue of the professional development of language teachers is presented from various perspectives:

The conceptual development of a new strategy for the professional training of students in higher education institutions has been explored by Kameneva (2009), Ihnatova (2013), Harna (2018), and others.

The issues of forming and developing pedagogical mastery and creativity have been examined by Zenko (2009) and Zaperchenko (2000).

The matters of personal culture have been addressed in the works by Diachuk (2011), Dubich (2010), and Hilberh (2002).

The problems of pedagogical innovations have been discussed in the studies by Davydenko (2004), Hrabovska (2004), Holub (2008), Hin (2004), Vainshtein (2001), Buhaichuk (2000), Artiushyna (2009), and Borshch (2011).

Using methodological innovations is an effective way to enhance youth awareness and develop their personal qualities. Some directions of methodological training for language teachers and the formation of their linguistic identity have been explored in the research by Bilodid, Biliaieva, Voloshyna, Donchenko, Karaman, Kononenko, Matsko, and Miroshnychenko Innovative teaching technologies and Ukrainian language methodology have been extensively covered in academic studies by Kochan, Tsinko and Riabtsev have addressed computer technologies' role in developing future language teachers' professional potential. Other Ukrainian scientists studied specialized geo-information systems in teaching students and postgraduates (Iatsyshyn et al 2020), emergency distance education (Bakhov et al 2021), features of managerial activity of education managers (Semenets-Orlova et al 2022), the potential of education in public administration based on a human-centered approach (Semenets-Orlova et al 2022), innovative approaches in modern public administration (Semenets-Orlova et al 2022). The peculiarities of creative burnout of education workers were also studied (Kryshtanovych et al. 2022), mental and speech development of adolescents (Akimova et al 2022), and the development of a communicative paradigm in the field of social networks (Popovych et al 2020).

The analysis of the scientific literature on this issue has revealed that scientists and practitioners have not proposed a precise classification of innovative technologies for language teachers' training. Also, the concept of "technology" includes implementing various operations, using different methods and techniques, pedagogical methods, and materials. In other words, it includes everything that contributes to the effective work of the teacher and the harmonious provision of the educational process.

3. Materials and Methods

The following general scientific methods were used while compiling this article: comparative, comparative, analytical, historical, etc. The research was conducted using a combination of comprehensive methods, ensuring the results' effectiveness and scientific reliability. The theoretical approach involved the analysis, systematization, and comparison of scientific and pedagogical literature in revealing the state of the assessed problem and in understanding the essence of the reflection and implementation of educational technologies in the learning process. Generalization and systematization methods were employed to substantiate the theoretical foundations of the research. The pedagogical observation was used for diagnosing future language teachers' preparation levels after a series of activities.

3. Results and Discussion

The features of innovative learning include:

- Proactivity, anticipating, and preventing development.
- Future-oriented mindset.
- Focus on individuality and personal development.
- Inclusion of creative elements.
- Partnership-based relationships: collaboration, co-creation, mutual assistance, etc.

Educational innovations are defined as follows:
- the innovations in educational content;
- the forms and methods of teaching;
- the "teacher-student" relationship;
- the use of information technology;
- the introduction of new equipment;
- the organization of the educational process and its management, etc.

During classes, it is recommended to employ prospective teaching techniques for the development of student's creative abilities, such as clusters, inserts (during an independent study of theoretical material), completing tables, dual diaries, interrupted reading, collaborative search, cross-discussions, and roundtable discussions. It is also suggested to incorporate elements of TRIZ (Theory of Inventive Problem Solving) methodology, including "Surprise!" (when exploring a writer's biography) and "Spot the Mistake!".

In a modern information society, one of the most advanced methodologies that generate significant interest is using Internet resources as an innovative approach to learning.

The idea of using the Internet in education has been introduced previously. Since the early 1990s, national and international computer networks have been widely employed for educational purposes within various educational approaches. Both students and teachers have been able to exchange information in a time- and location-independent manner. New digital technologies have liberated the human mind for more creative tasks, contributing to personal development.

The Internet is a never-ending information source and a new communication environment for organizing educational work in a new way. It allows for creating an accurate and mobile informational setting to access information and engage in numerous other communicative tasks. Its use helps enhance student motivation, as contemporary participants in the educational process have the opportunity to immerse themselves in familiar informational environments when the Internet is incorporated into the classroom and individual sessions.

Various resources are utilized on the Internet for educational purposes, ranging from web pages with interesting educational materials (often in the form of tests) to extensive projects for comprehensive distance learning from the perspective of course developers. When using the Internet, a teacher can:

- Update the content of their textbooks.
- Find additional information.
- Conduct self-assessment.
- Share educational information.
- Develop interactive educational tools.
- Apply different forms of assessment and provide feedback.
- Facilitate communication among group members.
- Work with hypertexts, audio and video files, and blogs.

It is excellent to use online communication with higher education students from developed countries about the classics of Ukrainian literature, which is of great interest to foreign youth. Such communication allows students to consider the work's content from different perspectives.

The Internet enables the implementation of diverse techniques, the provision of methodological resources, the diversification of the learning process, and making it more engaging, considering the needs and interests of the learners, their level of preparedness, and ensuring timely and targeted monitoring of students' work, as well as effective management of it.

When discussing the drawbacks of internet-based work, researchers mention the main limitation of being confined to self-contained educational materials (the inability to connect to live networks). This drawback can be overcome by directing students to specific internet segments related to the studied topics.

This issue can be addressed by ensuring a constant connection and complementarity between traditional and innovative teaching methods. These two concepts should coexist on the same level.

The discussion is one of the most complex forms of language expression that requires prior preparation with linguistic patterns to assist students in articulating their thoughts. This technique is particularly effective when discussing and analyzing literary works during literature classes. The group discussions can be utilized both in the stage of initiation and reflection. In the former case, the goal is to exchange initial information and identify contradictions. Thus, in the latter case, it provides an opportunity for reevaluating acquired knowledge and comparing individual perspectives with others' viewpoints. Group discussions contribute to the development of dialogical communication and the cultivation of independent thinking.

The development of critical thinking is facilitated by non-traditional classes that increase students' interest in the subject and learning. Creativity in such classes lies not in entertainment but in selecting tasks and didactic materials. Due to their novelty and unconventional presentation (such as journeys, meetings, competitions, games, etc.), this surprise and activate students' attention and thinking. By placing students in unfamiliar situations, they engage in activities and collaboration with the teacher, creating a positive emotional atmosphere and stimulating intellectual and volitional domains. It results in easier knowledge assimilation and faster acquisition of skills and abilities. This process involves creating conditions for mobilizing both the creative reserves of the teacher and the students. Preparation for non-traditional classes is conducted meticulously, requiring significant effort and time from the teacher and the students. The most effective non-traditional forms of lessons are practical exercises, quizzes, research, excursions, problem-based dialogues, business games, and exams. The selection depends on several factors:

● Firstly, the consideration of students' age-specific characteristics;
● Secondly, the tasks, goals, and content of the studied topic.

For example, a seminar lesson has a repeating and summarizing nature. According to the revision tasks, seminars can be organized around the following topics: "Word composition and word formation," "Morphology-Independent and auxiliary parts of speech," "Punctuation of a simple sentence," etc.

One of the modern requirements for the Ukrainian language lesson is working with texts. In this regard, such a class form as research is used in the work. The title " lesson is research" reflects the main task of studying the language based on the texts.

Particular attention should be paid to the choice of text when preparing for such a lesson. The text should be highly artistic, considering the student's age and the content to study. It is advisable to use texts by different authors united by a common theme, different styles, and types of language to conduct comparative and comparative analysis.

The emphasis on an innovative approach is not accidental, as educational reforms affect the entire education system. Therefore, future prospects will be created by today's students, who should be a progressive and educated community. Using innovative approaches to teaching and preparing future language and literature teachers is necessary for modern education in higher education institutions. These methods help better understand and assimilate educational material and develop students' independent cognitive activity. They allow future language and literature teachers to discover and acquire new knowledge, ultimately shaping their professional competence. For educational and developmental activities to be effective for all participants, it should take place in an atmosphere of free creative collaboration. The interaction between students and teachers should be a learning process that benefits everyone. It is facilitated by group activities, where all participants are equal subjects of the learning process, that is, its creators. Innovative technologies have the invaluable potential for preparing future language and literature teachers who can actively and successfully function in various socio-professional fields in our country and beyond its borders.

In educational science, there is no single point of view regarding the understanding of the term "innovative pedagogical approach," and the following are relevant: "innovation," "modernization," and "updating." It is a process of searching for new and original solutions to pedagogical tasks in the researched context. Therefore, innovations are changes that characterize systematic activities of creating, mastering, and utilizing innovations. It is a scientific and creative search process that ensures purposeful selection and evaluation of pedagogical experience, scientific ideas, and methodologies. During this process, a teacher can act as the creator of innovations, a researcher, and a user of new pedagogical theories and concepts. The implementation of innovative technologies is associated with social and societal processes and events, globalization, and the integration of new knowledge. The term "innovation" means a new idea, a replacement of something with a new one. The implementation of various innovations invariably leads to social changes in society. Pedagogical innovation is one of the types of these social innovations. Thus, there is a correlation between the teacher's innovative approaches and their pedagogical mastery.

At the current stage of pedagogical development, we identify the following innovative technological approaches:
● Information and computer technologies.
● Critical thinking technologies.
● Learner-centered learning technologies.
● Project-based technology.
● Problem-based learning technology.

Now let's take a closer look at each innovative approach. It is necessary to acquaint future teachers in general education schools with information and communication technologies. They include educational administration software and computer-based learning programs such as NetSchool, "Network City," "School Office," "School Information System," "School," "Electronic Diary," "Interactive Maps for School," "Interactive Map Builder," "Electronic Learning Materials Kit," and others. These tools will help to develop the annual curriculum of educational subjects and store, accumulate, and present the necessary information. In the era of computer technologies, the fast pace of life demands quick and quality solutions to education-related matters for teachers, students, and their parents. These skills and competencies contribute to the

development of information literacy, enabling individuals to navigate the information space, handle data easily, and utilize them in everyday life per the needs of the job market and the effective execution of professional duties.

Critical thinking technology helps to acquire a specific volume of knowledge and promotes the development of personal qualities. This method's distinctive features include the following:

● The student's complete autonomy in decision-making.
● The absence of authority from adults.
● The opportunity for students to explore themselves and their inner "self" in acquiring knowledge.

Critical thinking is a complex mental process that begins with information engagement and culminates in independent decision-making. Using this technology is a crucial way to advance science and education in our country and, consequently, the entire information society.

Let us review the learner-centered learning technologies. The essential condition for this innovative method is the development of individual abilities of students who rely heavily on their own experience to explore themselves and their personalities and, consequently, to self-actualize in their profession. The focal point of this educational scheme is the individual, namely the student, with all their psychological peculiarities, which is crucial for differentiating the educational process. The starting point for this methodology is the revelation of each student's individual capabilities and characteristics. The technology of learner-centered education requires a special design of didactic material and educational texts that consider all the developmental peculiarities of students during the practical implementation of knowledge. This approach demands comprehensive didactic support.

The popularity of project-based learning as an effective approach to teaching and learning continues to grow. Research in this field confirms an increase in students' motivation to learn and indicates a higher level of achievement. The explored technology directs students towards creating their own intellectual product rather than just mastering a specific course topic. Students acquire new knowledge during project work, consult with teachers and peers, and engage in cognitive, design, and research activities. It implies a comprehensive approach to obtaining a completely different quality of education. The goal of project-based technology is to gain individual experience for students and to create their own projects.

The problem-based learning technology stimulates the independent investigative activity of students, fostering their creative and intellectual abilities. This technology is familiar but remains relevant as a powerful educational tool. When using this technology, students do not receive ready-made knowledge but search for it independently. A student needs to analyze the contradictions between the existing knowledge and those to be learned, mastered, and understood to understand the essence of a problem or issue.

The problem-based approach helps address various issues in modern education and science. However, it is only possible based on the experience of previously solved problems. For example, it would be advisable to organize a literature workshop or a drama class where students can solve the "eternal" issues of characters from Ukrainian literature. It would be a good idea to hold roundtables to address the specific problems: "The Role of Ukrainian Literature in the Life of an XXI Century Teenager," "The Gender Behavior of Ukrainian Literature Characters: Then and Now ("Similarities and Differences")," etc.

5. Conclusions

The content of innovative technologies and their role in the methodological training of future specialists are, thus, focused on the formation and improvement of the professional competencies of the modern language teacher. The described technologies can be utilized while teaching various disciplines in the philological field. These will enable the conscious readiness of future language teachers to implement innovative approaches in the school practices of secondary education institutions in the long term. The utilization of innovative technologies helps to address the following educational and developmental tasks:

− Activating students' cognitive activities.
− Implementing personalized learning.
− Saving learning time for further utilization.
− Ensuring control and predictability of results.
− Incorporating the best practices from worldwide pedagogical experiences.
− Creating conditions for the practical utilization of the potential abilities of future language teachers.
− Innovative technologies effectively implement important didactic language education principles such as scientificity, visibility, accessibility, and autonomy.
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The conclusions section serves as the culmination of the research findings and provides a concise summary of the key outcomes and implications of the study. In this section, the researchers present their final thoughts and insights based on the analysis and interpretation of the data. It is an opportunity to address the research objectives and hypotheses and determine whether they were supported or contradicted by the findings. The conclusions should be supported by evidence from the results and discussion sections, highlighting the significance and novelty of the research outcomes. Additionally, this section may also discuss the limitations of the study and suggest potential areas for future research. The "Conclusions" section aims

to tie together all the threads of the research and provide a clear and coherent summary of the main findings, ultimately contributing to the broader understanding of the research field and potentially influencing future scientific endeavors.

Ethical considerations

Not applicable

Conflict of Interest

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Special Issue: Socio-educational, political, and economic relations in Ukraine

"Brain Drain": dynamics and state management mechanisms of countermeasures in the conditions of European integration of Ukraine

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Abstract Study of the peculiarities of the "brain drain" in the conditions of a full-scale war between Russia and Ukraine, as well as consideration and formation of management decisions regarding potential re-emigration policy, especially in the context of the academic community (teachers and scientists). The key methodological basis was the interdisciplinary approach, which made it possible to apply the work of both political scientists and state managers, as well as economists, sociologists, and psychologists, to the given problem. Dialectical and comparative methods were also important, which made it possible to reveal the contradictions and specifics of the implementation of the state policy of preventing "brain drain" and "brain gain". The authors considered data from sociological surveys, as well as statistical data published by the National Academy of Sciences of Ukraine and the Ministry of Education and Science of Ukraine, which made it possible to identify a kind of regularity – in both cases, approximately 10% of scientists/teachers were outside the borders of our country. Considering the project of the state policy of "brain growth" (more precisely, re-emigration), it was established that recommendations in this context should be formulated not only for the donor country itself but also for migrants, the recipient country, and international organizations. Using the work of not only specialists in public management and administration but also related humanities – sociology, psychology, and philosophy, makes it possible to reveal the problem of "brain drain" in our country in a multilevel and comprehensive way, thereby seeing in this problem not only a purely sociopolitical aspect but also personal and existential. Management challenges related to this issue are not only in the formation of re-emigration policy but also in preventing (or at least minimizing) academic migration in the future, which should be based on such key points as social partnership and tolerance.

Keywords: Brain drain, academic migration, state policy in Ukraine, managerial challenges

1. Introduction

The term "brain drain" was introduced by the British Royal Society to describe migration processes among scientists and engineers during and after World War II. "Brain drain" is one of the constituent parts of the intellectual migration of the population as a two-way process that includes "brain gain" and "brain drain". Analysis of the works of these scientists shows a difference of opinion regarding which specialists should be included in the category of "brains", as well as which types of migration should be classified as "brain drain". Generally, brain drain is a complex process of mass emigration in which specialists, scientists, and skilled workers leave the country or region for political, economic, religious, or other reasons.

At the beginning of the full-scale Russian invasion (February 24, 2022), it was believed that the problem of "brain drain" could have negative consequences in the short term. However, a year later, in April 2023, representatives of Ukrainian higher education institutions, who participated in the webcast of the European Association for International Education, expressed their fear that as a result of aggression, significant destruction, and forced migration, Ukrainian higher education in the long term will face the problem of brain drain (Ukraine support).

2. Literature Review

However, it should be noted that this problem actually arose from the beginning of independence, especially at the beginning of the XXI century. This is evidenced by the scientific work of a number of Ukrainian scientists: Kondratieva (2022), Moysey (2015), Moskalchuk (2021), Nagorna (2021), Onyshchuk (2020), Roschina (2017), Utiuzh (2023), Veselska (2017), Shatska (2022), and others. In particular, they studied international labor migration in the context of socioeconomic development, labor migration in Ukraine, regional socioeconomic aspects of migration, features of the modern stage of

international migration processes, the theoretical foundations of effective decision-making in the management of migration processes, new social risks of international migrant workers in the conditions of the transition to a postindustrial society, and modern migration processes as a factor of political transformations (Polischuk and Nagorna, 2021).

However, there are currently no studies on the peculiarities of the migration movement of representatives of the academic circle (teachers and scientists) as a result of the full-scale war and the ways of their re-emigration to Ukraine.

3. Results

3.1. Specifics of the course of "brain drain" in war conditions: from numbers to tasks

Escaping the war, thousands of people were forced to emigrate from Ukraine to European and other countries. According to UN data, as of September 7, 2022, the number of refugees from Ukraine exceeded 11.16 million people, of which almost 36% received temporary protection in Europe (Ukraine Refugee, 2023). At the same time, according to the Office of the United Nations High Commissioner for Refugees from February 28, 2022, and as of August 30, 2022, almost 5.3 million people returned to Ukraine (Overview, 2022).

Human potential, considered mainly at the macroeconomic level, is the key driving force of the economic growth of the state. Among a number of indicators of human potential, the Human Development Index has significant informational value, which is based on three important and interrelated components: human health, in particular, average life expectancy; an integral indicator of education level; and the economic standard of living of the population (GDP volume per person at purchasing power parity in US dollars). Losses of human potential due to migration, death, mutilation, and internal displacement, together with the destruction of infrastructure, lead to a reduction in GDP per person, which is 2021, according to the World Bank, at the level of 4,835.6 $USA (GDP). According to the State Statistics Service of Ukraine, real GDP in quarter II. 2022 decreased by 37.2% compared to the corresponding period of 2021 (State Statistics, 2021).

If we talk specifically about the brain drain in numbers, then first, it should be noted that:
– "more than 60,000 foreign students left Ukraine since the beginning of the war" (Shatska, 2022);
– "according to data as of the beginning of May 2022, a significant number of scientists of the National Academy of Sciences of Ukraine (at least 10% – approximately 1,900 people) left for other countries" (Zvit, 2023).

In turn, if we are talking about teachers who work in higher education institutions of the Ministry of Education and Science, then as of October 2022, after more than six months of war, the situation was as follows (See Table 1) (Informational and analytical, 2022):

Table 1 Information on the activities of scientific workers/research and pedagogical workers/young scientists in 97 institutions of higher education.

Indexes	Researchers	Teachers (assistants, associate professors, professors)	Young scientists
The number of people according to the staff list	6665	43474	6686
The number of persons whose place of residence did not change during the period of martial law	3581	33120	5137
The number of people who changed their place of residence and left the territory of Ukraine to other countries	326	3514	456
The number of people who changed their place of residence and left the territory of Ukraine to other countries and continue to carry out scientific, scientific-technical, scientific-organizational, scientific-pedagogical activities	296	3202	435
The number of persons who changed their place of residence and were relocated to other regions of Ukraine in connection with the conduct of military operations in the region, the threat of temporary occupation, etc.	484	4566	794
The number of people who have changed their place of residence and moved to other regions of Ukraine in connection with the conduct of military operations in the region, the threat of temporary occupation and continue to carry out scientific, scientific-technical, scientific-organizational, scientific-pedagogical activities	482	4500	788
The number of persons with whom employment contracts have been suspended/labor relations have been terminated	28	187	25

As we can see, in fact, 10% of employees of higher education institutions went abroad, and the same percentage of highly qualified specialists moved to another place of life but remained in Ukraine. In general, it should be emphasized that this type of migration has consequences not so much for the host society as for Ukrainian society, that is, the state that "supplies" migrants. The most tangible of them are social (in the broadest sense) consequences.

On the economic plane, emigration, on the one hand, reduces the supply in the labor market, giving a chance to obtain desired jobs and wages to those who remain, which is, of course, a positive thing in the face of high unemployment and the emigration of low-skilled workers. On the other hand, intellectual emigration weakens the scientific and technical potential of the country and slows down its scientific and, as a result, socioeconomic growth. In addition, in the latter case, the state loses the opportunity to compensate its expenses for the education and qualification of emigrants (Roschina, 2017).

However, we can note that the majority of respondents before their forced departure from Ukraine worked in various sectors of the economy; in particular, 11% indicated the educational sphere. Despite the general desire of the vast majority of respondents (87%) to return to Ukraine, 13% plan to do so in the near future, and for only 3%, education is the main reason for returning to Ukraine. Instead, 63% will remain in the countries where they are currently located, and 70% have not decided exactly when they will be able to return (Displacement, 2022).

Despite everything, it is possible to note a kind of "positive" in the (temporary) "brain drain", since the gained experience of being in other cultural environments and involvement in the education system of other countries will provide much more advantages in the future both to each specific person and to the country in general. The fact that Ukrainian students and teachers abroad are a kind of "communication bridge" (ambassadors) of their Ukrainian higher education institution in the host university is also important, which has positive consequences for both sides. In this context, we can mention the "KNU-ambassador" project, in which more than 40 participants took part, and talked about "existing or future prospects of cooperation of the University with other foreign universities" (Bugrov, 2022).

Therefore, in the long run, there may be a local "brain drain" when people go abroad for education and/or professional experience and then return to their home country, hoping to improve their professional status. Among supporters of the "brain drain" concept, there is an opinion that this form of labor migration will be a priority in the future because:

- First, the possibilities of remote "brain drain" are greatly expanded when a person does not physically cross the territorial borders of his country but transfers the results of his mental work to foreign customers;
- Second, the procedure for finding potential employees and employers is facilitated;
- Third, the employee receives a salary (albeit often bypassing the state income tax system) and spends at least most of it within the country of permanent residence, thereby, albeit minimally, stimulating the development of the domestic economy;
- Fourth, the process of establishing the necessary contacts is accelerated.

Table 2 The attractiveness of higher education institutions for study and academic careers.

Measures to achieve the goal for 2022	The state of implementation of measures	Explanation
Provision of conditions for the practical implementation of obtaining a junior bachelor's degree in the field of knowledge for the individualization of the educational trajectory of the acquirer	Not done	Corresponding changes to the legislation have not been developed
Development and implementation of the professional program development of academic managers	Not done	The program has not been developed
Adoption of the Law of Ukraine "On Adult Education" and the creation of a modern regulatory framework for its implementation	Partially completed	The draft Law "On Adult Education" was approved by the Government and submitted to the Verkhovna Rada of Ukraine in February 2022. In January 2023, the document was adopted in the first reading.
Normative settlement of the issue of recognition of learning results of nonformal and informal education in the system of formal education	Done	In February 2022, the Procedure for recognizing the results of nonformal education was approved, and informal education.
Motivating students to develop intellectual and creative discourses, social initiatives, and projects.	No progress indicators are set	
Regulation at the legislative level of the issue of the implementation of postdoctoral research programs in institutions of higher education and scientific institutions.	Not done	In October 2021, the MES released for public discussion the draft law "On Amendments to the Law of Ukraine "On Scientific and Scientific-Technical Activities"" regarding the development of research infrastructure and the provision of state support to young scientists. This project proposed to introduce the definition of postdoctoral studies and regulate the status of postdoctoral students. However, the draft law was not considered by the Government and was not submitted to the Verkhovna Rada of Ukraine.

Therefore, we can potentially see the advantage of "virtual brain drain" over "real movement of brains" abroad together with their owner. However, the advantages probably end there because the employer receives all possible bonuses and

dividends from the use of the created information product or provided information service. Thus, today, it can be confidently stated that the "brain drain" has become a particular form of colonialism - so to speak, informational colonialism. If traditional colonies supplied the metropolis with raw materials and bought finished products, now countries with a weaker economy supply the skills and abilities of their best specialists to "stronger" countries in exchange for buying the right to use the products created by these specialists.

Such factors, processes, and numbers caused the fact that after a year, more than half of the goals achieved in the field of education were not achieved (Higher education, 2023).

3.2. Re-emigration of educators and scientists: management challenges

As a result of terrible destruction (in all aspects of social life) in the conditions of martial law and threats to our country, the Government presented the Plan for the Recovery of Ukraine [Plan vidnovlennya Ukrayini, 2022], the implementation of which will make it possible to create the basis for the future reconstruction and development of the national economy over the next 10 years. Within this document, which consists of 15 national programs, the main areas of recovery of the destroyed economy in both the war and postwar periods are defined. One of the priority areas of the Recovery Plan of Ukraine is "Education and Science" [Plan vidnovlennya Ukrayini, 2022], for the development of which it is planned to allocate $5 billion to the USA. The integration of science, education and business is extremely important to ensure the economic growth of the state in the face of military threats.

The process of re-emigration of citizens of any country is multifaceted and multistep; therefore, for the successful completion of the task, all parties are involved in the process, for example:
– country of origin or citizenship;
– actually migrants;
– host country;
– (in some cases) international organizations.
All three (four) parties must work harmoniously and be interested in the process.

If at least one of the links obstructs the procedure or deviates from the outlined action plan, the negotiated conditions and the re-emigration process will be postponed.

In the field of migration policy, the following measures should be taken in the near future:
– "intensify the negotiation process regarding the conclusion of agreements on mutual employment of citizens and their social protection with countries where the number of labor migrants - citizens of Ukraine is the largest;
– promote the acceleration of amendments to agreements on cooperation in the field of labor migration and social protection of labor migrants;
– implement measures to adopt draft agreements regulating labor movement with EU countries;
– to intensify the negotiation process with the aim of implementing the provisions of the PACE Resolution "Consequences of the enlargement of the European Union for the freedom of movement of citizens of the member states of the Council of Europe" into the national legislation of these states;
– to promote the dissemination of information for citizens of Ukraine about the possibility of legal employment abroad through mass media;
– to create mechanisms to prevent the lowering of the qualifications of highly educated specialists as a result of their stay in low-skilled jobs abroad;
– to prepare a comprehensive state program for the regulation of migration processes with a clear division of powers and responsibilities of the central bodies of executive power and local self-government;
– reduce the scale of illegal labor migration of the population outside the country;
– carry out work on the introduction of analytical reporting to control the return to Ukraine of citizens who were provided with tourist services;
– to create effective mechanisms for the legalization of incomes of citizens working abroad: to develop a mechanism for creating favorable conditions for the transfer of remittances to Ukraine from labor migrants – citizens of Ukraine;
– to study the system of taxation of labor migrants of other countries and to standardize the regime of taxation of incomes of labor migrants - citizens of Ukraine» (Veselska, 2017).
Therefore, in the economy of Ukraine as a donor state, the following most important positive external economic effects of international labor migration should be singled out:
– relaxation of tension in the local labor market;
– investments of potential migrants in education;
– reduction of the unemployment rate;
– reducing the budget burden;
– growth of population income due to migrant transfers;
– increase in demand on the domestic market for goods and services due to transfers;
– investments in migrant families;

     –   the possibility of the return of qualified workers and reduction of the poverty level (Moysey, 2015, p. 10).

However, it should be noted that not only the donor country should pay attention not only to the donor country but also to other participants in potential re-emigration processes (see Table 3).

Table 3 Recommendations for effective re-emigration policy.

Subject	Recommendations on possible actions and measures
Migrant	– the legality of migration; – compliance with ethics; – compliance with procedures; – support of patriotism and national spirit; – do not abuse help; – replenishment of the state budget.
Country refuge	– not to hinder re-emigration processes; – conclusion of agreements on termination of temporary protection; – road assistance; – organization of consultation points; – agreements on readmission.
International organizations	– to be a neutral and disinterested player where necessary; – readmission of Ukrainians; – financing provision; – provision of initial capital for the establishment of a business.

4. Conclusions

Therefore, we can conclude the following:

– The regulation of academic migration (from "brain drain" to "brain gain") is a specific sphere of public and social policy that is implemented by a complex of administrative, legal, and economic methods. Therefore, for the implementation of its effective management, an interdisciplinary approach is necessary, using various approaches and principles based on the results of research, including sociological and psychological approaches.

– By attracting specialists and experts in social and international politics, education, and science, a number of draft laws should be developed in Ukraine that would reasonably and effectively implement remigration policy, especially in the context of "brain gain". The international community plays a significant role in regulating this process. Many international agreements adopted under the auspices of the UN relate specifically to the problems of international labor migration and the potential process of re-emigration;

– economic methods of regulation both "brain drain" and "brain gain" include forecasting, planning, material incentives and sanctions, financing, and lending, and the use of such economic categories as wages, prices, etc. Economic methods of regulation are a system of techniques and methods of direct influence on socioeconomic processes in compliance with the requirements of economic laws under certain commodity-monetary relations with the use of economic tools.

Ethical considerations

Not applicable.

Conflict of Interest

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Model for assessing the formation of special (professional) competences of practical psychologists in the educational and information environment of higher education establishments under conditions of dynamic uncertainty

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Abstract A comprehensive scientific and empirical analysis of the works of both domestic and foreign scientists regarding the construction of models for assessing the development of special (professional) competences in future practical psychologists within higher education technical establishments (HETE) is carried out in this article. The research aimed to create and justify an author's model for evaluating the development of special (professional) competencies among practical psychologists in the educational and informational environment of a higher technical education institution under conditions of dynamic uncertainty. The study's objectives included identifying theoretical approaches to examining the assessment of future practical psychologists' readiness for personal growth and professional advancement, delineating the specifics of cultivating special (professional) competencies in these individuals, substantiating the methodology for nurturing special (professional) competencies in future practical psychologists, and designing a theoretical model for assessing the development of these competencies. To achieve these goals, various research methods were employed, including scientific analysis, systematization, generalization, comparison, and pedagogical modeling. Consequently, the conducted research delineated the structural components of the model for evaluating the development of special (professional) competencies among practical psychologists, namely the goal-forming, content-technological, organizational-pedagogical, and effective components. Moreover, criteria for assessing the development of these special (professional) competences were established, encompassing motivational and valuable criteria, cognitive criteria, communicative criteria, organizational and operational criteria, and reflective criteria. Additionally, the research identified distinct levels of competence formation, which include the intensive-creative level, active-searching level, and reproductive-passive level. In conclusion, the model for assessing the development of special (professional) competencies was found to comprise five stages corresponding to the specialist training courses: the general education stage (first year), the subject orientation stage (second year), the operational and cognitive stage (third year), the control and assessment stage (fourth year), and the specialization stage (first year of master's degree). Furthermore, an algorithm for managing the cultivation of special (professional) competencies among future practical psychologists has been developed, and the conditions for its successful implementation have been identified.

Keywords: special competencies, practical psychologists, educational environment, information environment, higher education

1. Introduction

In periods characterized by scientific and technical progress and rapid socioeconomic changes worldwide, the education system of Ukraine responds by undergoing continuous reformation. One prominent manifestation of this process is the internationalization of the global educational landscape. The political and cultural convergence of nations emerges as a leading trend in societal advancement during the third millennium.

In light of this context, the strategy for shaping educational paradigms, which mirror specific transformations within the education system, is recognized as a fundamental component of contemporary global social progress. Within this framework, a significant emphasis is placed on addressing the challenge of enhancing the accountability of higher education institutions in

preparing future graduates for the challenges of real life. This includes their ability to adapt to the constant societal changes, often accompanied by stress and conflicts, as well as their competence in resolving sociopsychological contradictions.

Hence, the resolution of this challenge, by imposing qualitatively new requirements on the nature of training for future practical psychologists within the realm of higher technical education, becomes one of the most critical objectives in the professional preparation of these experts. Consequently, the training process should encompass the study of pertinent academic disciplines within the educational and professional program and the cultivation of professionally significant attributes among specialists. These attributes encompass the psychological perspective (as a distinct life orientation and personal philosophy) and the resulting value structure in personal orientation. Additionally, they encompass the development of critical thinking, the establishment of mechanisms for social perception and reflection, the refinement of communication skills, proficiency in managing interpersonal interactions, self-regulation abilities, the cultivation of professional intuition, a specific self-concept, and more.

This article aims to formulate and substantiate the author's model for assessing the acquisition of specialized (professional) competencies by practical psychologists in the educational and informational environment of a higher technical education institution under conditions of dynamic uncertainty. Task for Executing the Investigation:

• To determine theoretical approaches to the study of assessing future practical psychologists' readiness for personal development and professional formation.

• To determine the peculiarities of the formation of special (professional) competencies of future practical psychologists.

• To substantiate the methodology of formation of special (professional) competences in the educational and informational environment of HETE.

• To design a theoretical model for evaluating the formation of special (professional) competencies of future practical psychologists as a condition for their personal development and professional development.

2. Literature Review

The specificity of practical psychologist activities in the technical field, as well as the peculiarities of their training in higher technical education institutions (HETE), including various levels of student training, imperfections within the educational and informational environment, and the vast amount of educational material, are determined by the priority objective of forming professional (special) competences. These competences are established on a professional and activity-oriented basis, and the expansion of this process is achieved through the strengthening of its integrity and the application of psychological-pedagogical analysis to understand the functions and features of the professional activities of future practical psychologists. Numerous scientific studies have been dedicated to enhancing the quality of practical psychologist training in technical fields (Bech, 2009; Bilyuk, 2014; Koval, 2013; Stolyarenko, 2013; Tsaras et al., 2018; Shytyk and Akimova, 2018; Popovych et al., 2021; Strikha et al., 2021; Popovych et al., 2022). These analyses reveal a series of contradictions between:

1. The inherent nature of training and the comprehensive essence of modern professional activities for practical psychologists. The existing professional training typically relies on traditional forms and methods, which primarily impart knowledge within specific educational disciplines, often failing to establish a professional focus or integrity. Future practical psychologists, when engaged in real-world practical activities, especially amid the dynamic uncertainty of contemporary contexts, require the ability to address complex problems that demand the application of a broad knowledge system from relevant academic disciplines. This creates difficulties in their professional adaptation and diminishes their professional efficiency.

2. Theoretical knowledge possessed by future practical psychologists and their practical application skills when solving professional tasks in contexts marked by the inaccuracy and unreliability of information. The complexity of modern socioeconomic conditions sometimes entails handling unique tasks that demand independent and creative application of acquired knowledge and skills. Existing training approaches do not consistently foster the necessary integrated professional independence among practical psychologists for applying knowledge and skills in practice.

3. The existing educational and software support for the professional training of future practical psychologists and the actual requirements for incorporating current state and industry documentation as a genuine and scientifically grounded assessment tool for shaping special (professional) competences in practical psychologists.

4. The functional duties associated with practical psychologist positions in professional activities and the level of their integration into the educational process. Modern socioeconomic conditions necessitate a new type of specialist capable of seamlessly adapting to various production conditions and different qualification levels. The current professional training system often leaves future specialists uncertain about their functional job duties and the scope of problems, questions, and tasks they will encounter in real working environments.

5. The conscious assimilation of educational information and the professional responsibility of future practical psychologists for the final outcomes of their work within the dynamic uncertainty of the socioeconomic environment. One of the key objectives of modern higher professional education is to cultivate practical psychologists who can deliver competitive products and services to society. Nevertheless, existing training methodologies often foster an

unconscious approach to educational information, which can hinder the performance of specific actions and the provision of particular services. This is influenced by various objective and subjective factors, including insufficient levels of special (professional) competence formation, which can leave future practical psychologists unprepared for professional activities in new working conditions, such as pandemics, military conflicts, and other cataclysms.

Additionally, an analysis of socioeconomic and professional requirements for the future professional activities of practical psychologists indicates that the development of their readiness for integrated professional activities can be facilitated through the creation of an appropriate educational and informational environment (IE). Such conditions should ensure that the readiness of future practical psychologists aligns with the contemporary needs of the field. Specifically, this entails the existence of a mathematically grounded mechanism for assessing the formation of special (specialist) competences among practical psychologists within the IEHETE, while considering the dynamics of uncertainty.

The foundational concepts related to professional training and the content of professional education, as highlighted in the works of Luzik et al (2021) and others, provided the theoretical underpinning for research into the readiness of future specialists for professional development and personal growth. However, the analysis of the process for developing professional abilities and skills among future practical psychologists, as examined through the scientific works of researchers like Semichenko (2009), Kaslow (2004), Wise et al (2010), Pomytkina (2013), Rakhmanov (2019), and others, as well as the psychological and pedagogical conditions for forming professional qualities among higher education students (Grigoryeva, Osadchenko, Zhytnukhina, Khokhlina, Pomytkina, Lych, Gorbenko, Kazak, and more), confirmed the inadequacy of attention given to the development of their special (specialist) competences.

The results of the study and analysis of the aforementioned scientific sources reveal that the concept of "Dynamic Uncertainty" pertains to the party considering the implementation of a project or new technology. This party must evaluate not only when the project is economically viable but also when to abandon a project that could potentially surpass the social standard. The concept encompasses the necessary circumstances, phenomena, factors, ways, expected outcomes, and directions that serve as external prerequisites for the existence and development of phenomena. In essence, it represents the situation or circumstances upon which a comprehensive and productive educational process for professional training of specialists depends. This process is mediated by the activities of an individual or a group of people. Uncertainty implies that both parties involved view the social standard as a safety target rather than an inflexible barrier that cannot be surpassed. The greater the uncertainty, the greater the tolerance for damages exceeding the social standard from both parties.

According to research by Kudsen and Scandizzo (2004), several key points arise:

1. For a range of parameter values related to costs and uncertainty, both parties will reach an agreement regarding the level of damage that warrants compensation. In this "Coasian" solution, agreement implies that the party causing the damage is willing to pay more than the present value of expected excess damages for a damage level lower than that required for the other party to actively seek compensation.

2. The two parties will agree on both the timing and level of compensation if it can be recovered without incurring transaction costs.

3. Due to efficiency requirements, damages cannot exceed an amount determined by the social standard. However, they also cannot fall below an amount dependent on the output level necessary to achieve economic efficiency. Consequently, the joint consideration of efficiency and safety implies an inverse relationship between the size of the social standard and the payment required to eliminate the threat. Therefore, for a given payment, more stringent standards widen the range of output values for which an economic agent may decide to adopt a new, risky technology without incurring an upfront penalty. This range becomes broader as uncertainty increases and the damage rate decreases.

3. Materials and Methods

To implement the formulated goal of the research, a set of methods of scientific knowledge was used: theoretical (study, analysis, synthesis, comparison); systematization and generalization of the received data; pedagogical modeling, which made it possible to determine the advantages and disadvantages of using only special (professional) competencies.

4. Results and Discussion

Examination of the organizational and pedagogical conditions in the educational and informational environment of the HETE as didactically interconnected circumstances and ways of organizing the educational process, which according to certain criteria form a system-synergistic-activity environment and determine the effectiveness of the functioning of this process, made it possible to identify the main conditions for the formation of special (professional) competencies of practical psychologists in the OIS HETE, taking into account the conditions of dynamic uncertainty in the form of:

1) analysis of awareness of the importance of psychological support for the effectiveness of the results of the professional activity of specialists working in the relevant field;

2) Understand, on the basis of certain features of professional activity, the possibilities and importance of the work of a practical psychologist in extreme conditions;

3) Interpretation of the results of the actualization of the personal abilities of a practical psychologist for his personal development and professional development.

Based on the formulated tasks that practical psychologists must solve in their professional activities, the following organizational and pedagogical conditions for the readiness of future practical psychologists for the formation of special (professional) competences in the process of professional training in the formed educational and informational environment of a higher technical education institution were determined:

1) provision of positive internal motivation in the process of personal development and professional development of students, that is, their orientation toward the conscious assimilation of productive knowledge with the corresponding formation of integrated (professional) skills and abilities; a person's own position in the current course of events; creation of conditions for the self-sufficient development of the personality through the formation of the ability for self-education, self-development, self-knowledge and self-evaluation;

2) Implementation of professional training of practical psychologists taking into account the integrated nature of their practical activities;

3) the use and implementation of project technologies as an arrangement of a set of actions, operations, procedures and methods (research, search, problem-based) aimed at acquiring new knowledge, abilities, skills and their individual elements for the formation of components of special (professional) competencies of practical psychologists;

4) Targeted use in the process of educational activity of level differentiation and individualization of education, considering the differentiation of education as a specially organized educational and cognitive activity that, taking into account the age and individual characteristics of the subjects of education, their social experience and starting state, aimed at optimal physical, spiritual and mental development of the student, his assimilation of the necessary amount of knowledge, and practical actions according to various educational plans and programs.

In addition, a differentiated approach to each future practical psychologist implies such an understanding of the individualization of training, which consists of planning mandatory personal training results and, on this basis, higher levels of mastering the training material. In this case, the student has the opportunity to choose the volume and depth of assimilation of certain educational material to optimize the workload, taking into account his own abilities, interests and needs. The teacher, building the educational and educational process in the educational and informational environment, taking into account those features that are typical of individual differences, has the opportunity to treat each group of students differently according to the appropriate criteria, which are divided into psychological components, skills of educational work, components of education and the influence of others and biological components.

Based on these provisions, the main approaches to the implementation of organizational and pedagogical conditions with the aim of forming special (professional) competences in the process of professional training of future practical psychologists were determined, namely:

- individual or person-oriented approach to students in the process of educational and scientific activity;

- problem approach (creation of problem situations) to determine the subject matter in the project activities of future practical psychologists;

- a practically oriented activity approach (prediction in the studied projects of real problems of future professional activity that need to be solved);

- an interdisciplinary approach (the implementation of scientific and project activities, which involves the use and integration of knowledge, abilities and skills from various disciplines).

Along with the pluralization and multivector nature of educational processes, in our opinion, the activation of trends aimed at new educational information technologies, which will contribute to the systematization and diversification of the training of future practical psychologists, is fundamentally new.

Psychological and pedagogical concepts about the essence and ways of training practical psychologists of sovereign Ukraine were chosen as the general theoretical basis of the study; philosophical provisions on the optimality of subject-subject relations in the course of their future professional activity; provisions regarding the leading role of activity and methodological principles of a systematic approach to the formation of special (professional) personality competencies of the future practical psychologist; concepts of developmental interaction and activity approach to the formation of psychological culture. Conducting relevant studies by a number of scientists has confirmed the existence of specific features of the training of a practical psychologist for various areas of professional activity, which are determined by factors such as a change in value orientations and moral ideals, a transition to market relations, and the need to strengthen the national professional culture in combination with preparation for the integration of Ukraine into the world cultural space.

The hypothesis of the study was based on the assumption that the effectiveness of the formation of special (professional) competencies of practical psychologists will increase if, during training at OIS HETE, one focuses on the integral readiness of future specialists for professional activity, taking into account the features of the functions of professional communication; criteria and indicators of formation of special (professional) competences; streamlining the methodical

provision of education using the principles of professional guidance; unity of personal and professional development and role organization of the educational process.

The study of the formulated hypothesis confirmed its provenance only under the conditions of creating an open, dynamic, self-organizing and self-improving educational and informational environment, which should include the following:

- development and introduction into the educational process of integrative educational courses with a modular structure of their construction and a rating assessment of the success of knowledge acquisition and skill formation;

- the development of innovative technologies that will contribute to the formation of productive knowledge, intellectual abilities and skills that make up the structure and content of special (professional) competencies of future practical psychologists;

- create optimal conditions in the educational and informational environment for the formation, correction and implementation of productive methods, methods and strategies of interpersonal interaction in conflicting situations through the use of active sociopsychological forms of the organization of educational activities.

The theoretical results of the study confirmed the following:

- based on the analysis of the functions of professional activity, job duties of practical psychologists, and the presence of such groups of special (professional) competences as communicative, managerial, professional and personal;

- the need to determine the indicators of the formation of special (professional) competences: accuracy, argumentation, logic, completeness, originality of the use of educational tasks in all types of professional activity; communicative expediency, quality and accessibility of the presentation; persuasiveness, interest in the emotional state of communication partners; lack of desire for dominance and biased attitude, conformism; predictability, emotional stability, self-criticism;

- the validity of the criteria for assessing the level of formation of special (professional) competences in the field of process-activity factors: (nature of interaction in communicative and business situations of various types, dynamics of activity, creative use of theoretical knowledge, frequency of appeals to a teacher-psychologist); emotional reactions (satisfaction, inspiration, admiration or indifference, detachment, anxiety, immediacy, confidence, etc.); time parameters (the amount of time a student allocates to study, the duration of willpower in the process of completing educational tasks and correcting errors, the speed of response to partners' cues);

- scientifically based organizational and pedagogical conditions that ensure the effectiveness of the formation of professional qualities in practical psychologists.

The practical component of the conducted research, due to increased requirements, new approaches and methods of training future practical psychologists in conditions of dynamic uncertainty, proved the need for constant development and practical implementation of new learning technologies: skills of the manager; culture of interaction with people and information; development of the ability to evaluate one's own activity and demonstrate professional qualities in nonstandard situations, thus directing the educational system-synergistic process of students to independence in choosing means and methods of solving nonstandard tasks, based on one's own knowledge, skills, personal qualities and experience; and further self-evaluation of the results, taking into account the features of the open, dynamic and synergistic environment in which future specialists will have to work.

Confirmation that the didactic basis for the development of the concept of formation of special (professional) competences in future practical psychologists is the theory according to which the content of the educational process should be carried out taking into account compliance with future professional activity; features of the specific content of practical and training tasks should be manifested in group interaction and in the ability to demonstrate one's own competence in nonstandard situations, as close as possible to real conditions. Such tasks include not only atypical situations but also tasks that the student has not encountered before and that require him to demonstrate not so much his own versatile qualities and integrated knowledge and skills but also the ability to build special models of interaction between students in a group, as well as between the teacher and students.

In this way, the conducted research made it possible to theoretically substantiate and practically implement an optimally formulated and didactically structured model of the formation of special (professional) competences in students and future practical psychologists in the process of professional training with a theoretical justification of its structural components, the properties of which and the relationships between them determine the peculiarities of the formation process of these competencies in practical psychologists. The author's model includes five stages, which represent a meaningful and integral didactic unit, where the interrelationship of individual stages is implemented in the gradual and consistent formation of both individual component competencies and the system of these competencies in students according to the training plan of practical psychologists. At the same time, all disciplines within the framework of one stage are connected by a clear logic of the interaction of processes of continuity and continuity.

Thus, at the general educational stage (1st year), future practical psychologists learn the theoretical provisions of fundamental disciplines and the basis of future professional activity, adapt to the educational and informational environment of the HETE and form basic educational values. During this period, the motivational and value attitude of students toward the future profession and norms of scientific activity is nurtured; theoretical and practical foundations of future professional activity are laid.

At the subject-oriented stage (II year) of training, students' ability to orient themselves in the system of values of professional education is formed, namely, subject orientation to certain aspects of future professional activity takes place; a meaningful individual orientation in the researched field and professional interests emerges, and the student's scientific and professional horizons expand.

The operational-cognitive stage (III course) is characterized by students' assimilation of new special (specialist) competencies and gaining experience of actions in professional situations by means of various types and forms of educational work: seminars, trainings, collective work on assimilation of educational material, conducting projects within the framework of solving professional tasks, conducting research and experimenting with the solution of quasiprofessional tasks.

At the control and evaluation stage (IV course), the studied material is summarized, and the fragmented special (professional) competences are brought to a single logical and meaningful block with the construction of their comprehensive evaluation. The main goal of this stage is the development of future psychologists' abilities for reflective activity (self-analysis), the ability to generalize and form an adequate self-evaluation, and readiness to demonstrate what has been learned in practice by complex means of creative tasks of increasing complexity (from heuristic to research), the implementation of which will allow us to assess the level of formation of special (professional) competences among students. This stage is the final stage in the preparation of bachelors.

The fifth (specializing) stage, which is carried out in the first year of the master's degree, is aimed at checking the ability and readiness of practical psychologists to develop and apply the formed special professional competences in various problem situations through the active study of special disciplines. The main task of organizing work at this stage is to complete the process of forming special (professional) competencies of students and bring them to the required level, which determines the success of the future professional and scientific activities of graduates (Figure 1).

Based on the fact that when training future practical psychologists in the conditions of the educational and informational environment of a technical university, teaching methods can be different - from purely reproductive to interactive, the essence of the conditions for using one or another method is determined by the conditions for the success of the formation of special (professional) competences, that is, the construction of an algorithm of actions, which will allow us to reproduce (show) the level of professional training of the future psychologist with the greatest accuracy to ensure a full reflection of the future activity. That is why, considering the individual learning trajectory as a plan of pedagogical actions, which is ensured by the unity of the organization and the management of the educational process regarding the formation of the educational and informational environment of the institution of higher technical education, it is possible to single out the relevant conditions, principles and components of pedagogical activity that contribute to the success of the formation of special (professional) competencies. As a result, the projection on each axis of the generalized strategy for the formation of special (professional) training competencies makes it possible to determine (Figure 1):

• the amount of time required for quality professional training of one future specialist (study group);

• cost estimate of quality professional training of one future specialist (educational group);

• how much money must be spent for the entire period of quality professional training of one future specialist (study group).
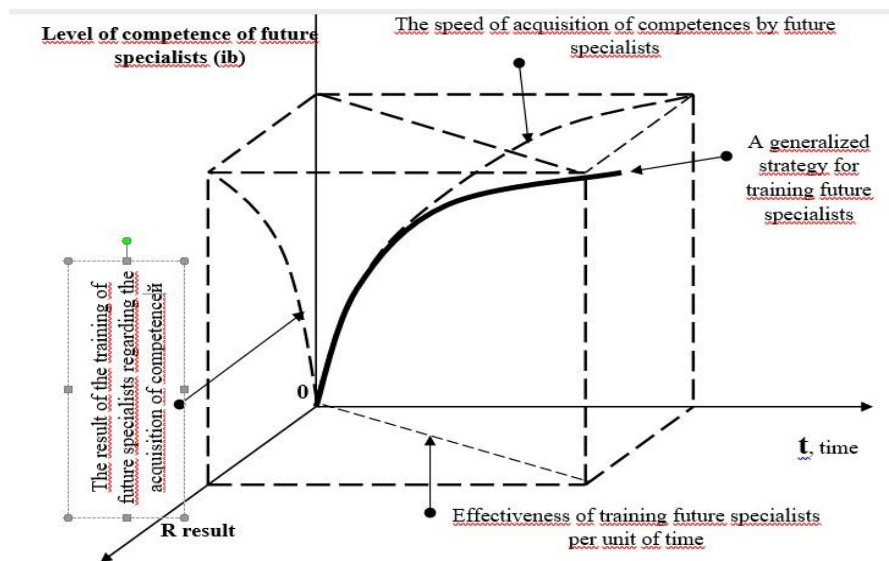

Figure 1 The author's structural-functional model for assessing the formation of special (professional) competencies in future practical psychologists in the process of professional training.

Thus, the projections on each axis defined in Figure 1 form the future specialist as a result - a personal learning trajectory and show the influence of the educational and informational environment on his preparation; to the teacher - a quantitative

description of personal efforts to prepare each future specialist (educational group); for the management staff of the technical university - an estimate of the training of one future specialist (educational group). This is very important because only a significant part of modern knowledge can be included in the curriculum based on the selection of the content of the initial discipline, in accordance with the essence of the strategic goals and objectives of education at various levels and stages of quality professional training (Degtyareva et al 2012).

The developed author's structural-functional model for assessing the formation of special (professional) competencies in future specialists-practical psychologists in the process of professional training, reflecting the internal organization and functioning, certain qualities, signs and characteristics of the specified process, consists of the following components:

- goal-setting, which includes the goal, principles and approaches;
- content-technological, justified by the structure and content of special (professional) competencies of future practical psychologists;
- organizational and pedagogical, which combines organizational and pedagogical conditions, forms, methods and means of ensuring the educational process;
- effective, containing levels, criteria, indicators and prognostic methods of tracking results.

The listed components of the model, being interconnected, differ in the degree of dynamism, significance and formation mechanisms, thus reflecting an ordered collection and sequence of methods and processes that ensure the implementation of the didactic process in the HETE and the achievement of a diagnostic result. The practical implementation of the author's structural-functional model of assessment of the formation of special (professional) competencies in future practical psychologists in the process of professional training is organized by taking into account general pedagogical principles inherent in any integral didactic system, specific principles that correspond to the principles of the competency approach and general organizational principles that are the basis for the creation of this model.

Thus, general pedagogical principles include the following:

- the unity of learning, upbringing and education, i.e., ensuring in the learning process a continuous connection between the acquisition of new knowledge and the formation of professional skills and the education of worldview culture and social attitudes;
- expediency as an optimal ratio of theoretical-methodological, methodical and practical knowledge;
- connection with life, i.e., orientation to the ability in the process of preparation to solve specific social and individual needs of applicants, formation of knowledge and skills necessary for their practical application;
- variability as the presence of correspondence of models of the content of professional education on a certain problem, depending on the characteristics of the contingent of students and the tasks of their professional training;
- the individualization of the approach, which forms the provision of elements of personally oriented learning of the pedagogical process based on the diagnosis of the initial level of knowledge and skills of students, which is manifested in the flexibility of programs and methods of activity;
- accessibility as a prerequisite for the level of teaching or the form of educational work that corresponds to the level of development and preparedness of students;
- visibility as filling the "space" between the abstract and the concrete and as providing polysensory (the involvement of as many senses as possible in the educational process);
- activity, awareness and independence in learning as taking into account the psychophysical regularities of the formation of productive knowledge and professional skills;
- unity of collective and individual forms of education.

Specific principles include:

- content polyphony as a means of ensuring objectivity and multifacetedness, stimulating different views and points of view;
- the subject-subjectivity of the positions of training participants as equal partners in the process of cognitive activity, which ensures the right to their own point of view, the choice of forms and directions of the content of the activity;
- the developmental nature of education, which presents the organization of the pedagogical process according to the laws of the functioning of problem situations;
- reflexivity as a means of improving one's own or joint activity through self-knowledge and critical self-awareness;
- the relativity of truth, which consists of the fact that knowledge always has a relative, temporary, concrete-historical and subjective character; therefore, it is unreasonable to claim absolute truth;
- voluntariness as a free choice of a problem, which ensures the initial level of motivation of students' activities;
- a combination of planning and spontaneity as a possible change of individual topics and forms of work in the process of technology implementation to better ones for this group or individual as a manifestation of the self-organization of the system;
- The contextuality of the model presents the maximum "immersion" of students in the space of the didactic process by implementing the appropriate forms and content of pedagogical interaction between students and teachers.

General organizational principles include:

- a combination of centralization and decentralization, i.e., taking into account national and regional requirements for raising the level of professional training of future practical psychologists in the process of implementing a specific training model;

- manageability as the embodiment of a complete management cycle based on pedagogical monitoring;

- coordination to ensure consistency of planning and general approaches to organizational activity;

- availability of favorable conditions for material and technical, scientific and methodological, didactic and personnel support;

- correspondence of the psychophysiological circumstances of the schedule and mode of classes, load dosage, creation of a positive psycho-emotional microclimate, etc.;

- self-control based on reflection on one's own activity;

- self-stimulation as self-reinforcement by achieving positive results.

Thus, the theoretically grounded structural-functional author's model of the formation of special (professional) competencies in future practical psychologists in the process of professional training should include two contours:

- external, consisting of principles, organizational and pedagogical conditions, functions and methodological approaches;

- internal, which includes target, meaningful, technological, effective and reflective components, where:

• the goal-forming component of the model reflects the following goals of training practical psychologists: mastering the basics of professional and interpersonal communication by future specialists; mastering the system of integrated professional knowledge, abilities and skills necessary for future professional activity; development of target orientation; formation of cognitive independence and activity; orientation to self-organization;

• the content-technological component of the model is a synthesis of methods, means and forms of organization of educational work, which is implemented with the help of a step-by-step didactic trajectory, in which the tasks of each stage, methods of organizing the process of developing special (professional) competences and forms of training organization are discussed;

• The effective component of the model is an evaluation toolkit of the level of formation of special (professional) competencies and allows us to organize the monitoring of the development process of these competencies in future practical psychologists. The information obtained as a result of this monitoring allows us to improve the structure and technologies of the complex of methods and the pedagogical technology of its implementation;

• The reflective-evaluative component of the model is a tool for the level of readiness for research work, which reflects knowledge, skills and abilities; understanding the problem and ways to solve it; and skills and abilities of research work.

The main characteristics and connections of subordination and coordination in the structure of the model of formation of special (professional) competencies of future practical psychologists are determined by the following two vectors:

• The vertical vector of the model, which provides systemic links of subordination, is represented by the process of advancement from the specified goal to the solution of the set tasks and, thus, to the final result of their implementation - the appropriate level of formation of special (professional) competencies of future practical psychologists;

• The coordination vector in the model is represented by the links of coordination and coordination of its elements, which allow us to expand the known provisions of the theory of professional training based on the competence approach by the provision of the priorities of the unity of personal, substantive and activity components.

The structural and functional connections of the model make it possible to build the final result of each educational session and ensure independent formation by students of the components of special (professional) competencies.

To successfully operate the model of the formation of special (professional) competencies of future practical psychologists in the process of professional training, an algorithm for managing this process was developed:

1) Specification of special (professional) competencies of future practical psychologists with determination of the content of professional competencies and taking into account the requirements of state standards by specialty (specialization) and analysis of the requirements of employers in the relevant field;

2) the target component, which involves determining the goal: the mission and main motives of managing the formation of special (professional) competencies of future practical psychologists;

3) planning the process of formation of special (professional) competencies of future practical psychologists, which includes: organization of management activities of the training process: management of methodical support of the training process; the structural and logical sequence of the study of disciplines and the creation of educational and methodological complexes of professional disciplines;

4) Organization and implementation of managerial activities for the formation of special (professional) competencies of future practical psychologists, which requires the implementation of planned works, creation of working groups, and direction of specialty (specialization);

5) analysis of the results of activities and implementation of control where the verification of the actual state of goal achievement and task resolution was carried out, as well as a comparison of the achieved result with the expected one, which makes it possible to establish in which of the components (or at which of the stages) the discrepancy occurred;

6) Correction of activities for the formation of special (professional) competencies in future practical psychologists.

At the same time, the successful functioning of the management algorithm for the formation of special (professional) competencies in future practical psychologists, in our opinion, becomes possible if the following conditions are met:

1) psychological and pedagogical (establishing subject-subject relationships between students and teachers; orientation of the pedagogical process to the formation of special (professional) competencies in future practical psychologists);

2) Organization (creation of conditions for exchange of experience with educational institutions; generalization and specification of work experience of specialists);

3) didactic (student preparation for relevant practices within professionally oriented academic disciplines);

4) Methodical (development of methodical support for students during practice periods, teaching students to model professional situations, etc.), and the criterion for the effectiveness and optimal functioning of the algorithm for managing the formation of special (professional) competencies of practical psychologists is the final result, namely, a high level of formation of special (professional) competencies of practical psychologists. At the same time, the author's structural-functional model for evaluating the formation of special (professional) competencies, as well as the algorithm for managing this process, provides an opportunity to evaluate the process of formation of special (professional) competencies of future practical psychologists in the educational process of professional training in its integrity and taking into account individual elements; analyze the disadvantages and advantages of this process, and therefore make certain adjustments.

The strategic goal of every EU member state is to build innovative education. The European Center for the Development of Vocational Education and Training (CEDEFOP) has set a limit that defines the acute need for modern vocational education in new skills as a result of technological changes and stabilization. Scientists predict that new skills will be formed under the condition of an open educational and informational, dynamic and synergistic environment (Pukhovska et al 2017).

Modern standards of higher education of higher education institutions of Ukraine lead to a change in the vector of the educational process of training future psychologists to the specifics of the formation of special (professional) competencies in them in the OIS of higher educational institutions of Ukraine, conditioned by conditions of dynamic uncertainty, accompanied by stresses and contradictions (pandemic, war, etc.) (Iliichuk, 2022).

These and other features of the training of a practical psychologist in HETE determine the priority of the formation of professional (special) competences of future practical psychologists on a person-oriented basis with the expansion of the possibilities of this process due to the strengthening of its integrity, scientific and theoretical analysis of the functions and features of the professional development of future practical psychologists.

In the 21st century, the basis of knowledge should be an interdisciplinary complex, the essence of which will be a close relationship between the humanities and practical courses based on the combination of specially selected blocks of elective disciplines. Constructed in this way, the virtual educational and informational space for the formation of a competitive specialist in the HETE should be based on the results of research into its essence, mechanisms of influence on the consciousness and dynamics of the future specialist's behavior (Melnyk 2022; Melnyk et al 2020).

We consider the solution of the problem of continuity in education for the field of "practical psychology" and the development of relevant educational programs from interdisciplinary complexes for the formation of special (professional) competencies of practical psychologists in the OIS HETE in conditions of dynamic uncertainty to be a perspective for further research.

5. Conclusions

1. The problem of forming the readiness of future practical psychologists for professional activity in the educational and informational environment of the HETE in conditions of dynamic uncertainty is one of the most relevant areas of research in the context of the professional development of an individual. Despite the significant progress of the scientific community in working out this problem, there is no clear understanding of the essence and functions of this phenomenon.

2. A necessary component of the readiness of future practical psychologists for professional activity is special (professional) competencies formed on a personal-oriented basis, taking into account the pedagogical analysis of the functions and features of the professional activity of practical psychologists.

3. As a result of the conducted research, it was established that the designed author's model of assessment of the formation of special (professional) competences consists of five elements, each of which, corresponding to the training courses, constructs the ability of the future practical psychologist to realize his rights and responsibilities; the ability to find and process information from various sources with the corresponding formation of abilities for abstract thinking, analysis and synthesis; the ability to work in a team and act on the basis of ethical considerations; and the ability to learn and master new knowledge and skills.

4. The developed management (evaluation) algorithm for the formation of special (professional) competences contributes to the identification of the conditions for its successful functioning for the personal formation and professional development of future practical psychologists, thereby acting as the basis for the ability of future higher education students to adapt to the constant changes in society, which are accompanied by stress and conflicts and the ability to resolve sociopsychological contradictions in an open dynamic and synergistic information space.

5. Considering the problem-based approach as the basis of learning and teaching methods in the educational and informational environment of the institution of higher technical education, it should be determined at the same time that the effectiveness of training future practical psychologists for professional activity depends on close cooperation of HETE with stakeholders.

Ethical considerations

Not applicable

Conflict of Interest

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Special Issue: Socio-educational, political, and economic relations in Ukraine

The trends of the cultural studies development in the modern conditions: the case of Ukraine

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Abstract The trends of cultural studies development in current conditions are analyzed in the article, with the case of Ukraine serving as an example. Cultural studies are gradually being transformed from an abstract sphere of philosophizing into a scientifically significant field. This transformation is supported by the review of candidate and doctoral dissertations, which demonstrate a shift towards applied science. The research in cultural studies adequately reflects the particularity of the current state of scientific practice, characterized by interdisciplinarity that significantly expands its potential for a flexible understanding of cultural practices. This transformation is driven by objective reasons, as the network of educational institutions, creative teams, concert venues, and other organizations in the field of music is the most extensive. It is asserted that cultural mentality, like any other type of mentality, is based on archetypes and embodied in myths. Cultural myths appeal to larger social mythological systems, leading to the transformation of cultural studies into the meaning of culture, which carries the imprint of corresponding chronotopes and worldviews. The current project is rooted in the idea of a total synthesis of cultures based on universals. In contrast, the postmodern project is motivated by the idea of deconstruction and the rhetoric of differences. Consequently, universalistic cultural studies tend to integrate various disciplines at the methodological level and aim to model the totality of world culture. On the other hand, particularistic cultural studies tend to reduce cultural studies to one of the components of cultural studies (typically aesthetics and art studies) at the methodological and subject levels, focusing on the investigation of individual components (genres, styles, ethnicities) of the phenomenon under study. The roots of cultural axiology can be traced back to the archetypal matrix of Greek-Orthodox thinking. It has provided strong traditions of cultural philosophy and its axiological reflection in Ukrainian humanistic thought. The traditional understanding of culture in Ukraine is deeply symbolic, axiological, and sacred.

Keywords: cultural studies, Ukrainian cultural institutions, archetypical matrix, reflexive approach, identity

1. Introduction

Today, multiple disciplines examine culture from various perspectives, including philosophy, history, sociology, and anthropology. However, the problem of comprehending culture as a whole remains unresolved, as culture is approached differently by each discipline, each applying its unique research methodology. Consequently, numerous cultural definitions exist, each reflecting only specific facets of culture. Furthermore, the knowledge amassed by other scientific fields regarding culture is challenging to reconcile due to its lack of systematic attributes and its fragmented nature. Cultural studies aim to systematize this diverse body of knowledge and synthesize the various approaches employed by these disciplines. Moreover, cultural studies can address a wide range of issues, as this discipline is concerned with examining culture as a complex systemic entity comprising numerous subsystems. It also views culture as a global phenomenon closely intertwined with the progression of human development. The following reasons drove the emergence of cultural studies:

- The necessity to develop an understanding of culture that can facilitate the connection between theoretical conceptions of culture and its practical implementation in all spheres of human activity;
- the pursuit of developing a more objective understanding of culture in the context of globalization, based not on particularism but on universality, which can foster intercultural dialog (including European and non-European cultures);
- the need for a comprehensive analysis of culture as an object of state policy to make well-grounded decisions in this field;
- The need to shape the cultural needs of humanity in a consumer society;
- The rapid development of information technologies led to increased rationalism and technocracy;

The research subjects of cultural studies include the following:
• studying the patterns of cultural development as a supercomplex system - its content, structure, and functions;
• uncovering its functioning, transmission, and interpretation dynamics and technologies;
• clarifying the meanings of concepts such as "cultural dialog," "cultural interaction," "cultural crisis," "cultural type," "cultural dynamics," "cultural regression," "cultural policy," and many others;
• exploring the genesis and process of cultural-civilizational interaction;
• searching for commonalities and particularities in the historical destinies of different cultures;
• revealing the meanings behind each historically formed cultural type;
• studying the relationship between culture and science, culture and religion, culture and nature, culture and morality, and culture and ideology;
• identifying specific features and fundamental values of Ukrainian culture.

In sum, we note that cultural studies are:
• A science that sees culture as its object of scientific analysis - a unique, complex object, a global phenomenon not confined to time and space;
• An integrative science is a metascience that systematizes and integrates the knowledge about culture accumulated by various private sciences about culture: philosophy of culture, sociology of culture, history, art studies, literature studies, semiotics, ethnology, and others. It comprehends the accumulated knowledge about the culture at a higher level compared to individual sciences about cultural levels.

Cultural studies is a comprehensive science that encompasses the study of all aspects of cultural functioning, from the causes of its origin to its historical self-expression. Culture serves as the subject of study within cultural studies, and the interest in this phenomenon is motivated by certain circumstances. The surrounding environment, social institutions, and everyday life are subject to transformation due to the influence of modern civilization. Culture, in turn, emerges as a source of social innovation. The potential of culture and the possibilities for its activation are subjects of exploration.

The questions regarding the relationship between the concepts of "culture" and "society," "culture" and "history," and the impact of culture on social dynamics continue to be of relevance. The cultural objectives of the present are evolving rapidly, posing challenges for individuals. Studying the essential characteristics of culture from past centuries becomes particularly significant to prevent oversimplification of contemporary culture. The categories within the terminological apparatus of cultural studies encompass fundamental concepts that describe the regularities in the development of culture as a system that reflects the vital properties of culture.

The meta-scientific description of cultural studies as a science and a mental paradigm constitutes a crucial element of self-identification within the post-Soviet area.

2. Literature Review

The term "cultural studies" (Kulturwissenschaft, "the study of culture") was introduced in Germany by G. Rickert in 1899. In 1949, L. White's book "The Science of Culture" was published in the United States, which proclaimed the existence of cultural studies. However, at that time, the scientific community focused on social and cultural anthropology and did not support the author's views (Bezklubenko, 2002), (Bychko 2001), (Volkov 2006). In Western universities, culture is still studied not through cultural studies but through applied interdisciplinary fields such as "cultural studies," "multicultural studies," and "cross-cultural studies."

A completely different situation emerged in the postSoviet area. The fundamental characteristic of the Soviet education system was its aspiration to provide a comprehensive scientific worldview for an "educated person" (V. Bilber) through the synthesis of natural and humanities knowledge. Cultural studies capture the integrity of this approach, serving as a marker of the integrative tendencies in the development of science in a globalizing society.

However, despite having all the features of a scientific paradigm, cultural studies faced several difficulties during its historical formation, primarily related to its relationship with the philosophical tradition of cultural understanding. As a result, the attempts to separate cultural studies from the philosophy of culture led to two main tendencies in interpreting the cultural studies tradition. They reflected the confrontation between the social and philosophical, anthropological and psychological, and positivist and humanistic schools of thought (Bohdanov 2005; Vasiuta 1998; Hrab 2004; Dziuba 1998; Dziuba 1994; Zhulynskyi 1991).

Social-cultural studies are focused on a rigorous scientific analysis of external cultural forms, while philosophical-cultural studies aim for an intuitively holistic understanding of subjective cultural images. In the context of the social intention of culturological cognition, the independent scientific status of culturology as a rigorous science has always been advocated. Within the framework of the philosophical tradition, culturology is often reduced to cultural studies, the accumulation of knowledge and approaches to the multifaceted aspects of culture. In contrast, the comprehensive idea of culture is entirely entrusted to the domain of the philosophy of culture. Several scholars have argued about the redundancies of latent culturological knowledge within various branches of humanities. Thus, it makes philosophy a sufficient methodological basis for cultural studies. Our research aims to study the ideological characteristics during the formation of cultural studies and

identify their correlation with the philosophy of culture. It seeks to interpret cultural studies as a model of identity formation within the context of modern sociocultural processes.

Many Ukrainian scholars, such as I. Dziuba, M. Popovych, S. Hrytsa, M. Zhulynskyi, I. Liashenko, L. Kornii, N. Herasymova-Persydska, I. Yudkin, M. Cherkashyna, N. Korniienko, Yu. Afanasiev, A. Lashchenko, and others consider the study of various aspects of artistic and aesthetic prognostics as one of the priority tasks of culturological science, linking it to state-building issues (Lytvynenko 2006; Tymoshenko 2003; Rosul 2003; Seriakova 2004; Rzhevska 2005; Popovych 1999).

A significant amount of theoretical and practical research on Ukrainian culture has found its reflection in studying the theory and history of artistic culture, analyzing artistic creativity as an object of aesthetic and art studies, pedagogical perspectives on artistic creation, and so on. A significant role in conducting cultural studies belongs to the institutions of the National Academy of Sciences of Ukraine. At the same time, new institutions are emerging to explore this field of knowledge (Osadcha 2000), (Nikolaieva 2006), (Mitlytska 2003), (Myronov 2004), (Martyniuk 2003), (Malinevska 1990), (Liashenko 2006), (Loshkov 2000), (Kuzmin 1972), (Kyyanovska 2000), (Kyreieva 2003), (Dorokhina 2000), (Bielosvietova 1990).

The article aimed to clarify the essence and content of cultural studies science using Ukraine as an example.

3. Methods

The research was conducted using a complex of complementary approaches that ensured the effectiveness and scientific validity of the research results:

- theoretical analysis, systematization, and comparison of positions in scientific and pedagogical literature to reveal the state of the investigated problem and clarify the essence of reflection and implementation of educational technologies within the educational process;
- generalization and systematization to substantiate the theoretical basis of the research;
- Pedagogical observation to diagnose the level of preparation of future cultural studies specialists after a series of measures.

4. Results and Discussion

At the beginning of 2011, in the electronic database of dissertation abstracts of the National Library named after V. I. Vernadskyi, there were 52 titles of candidates and six titles of doctoral theses. Mostly, they were protected in the specialized academic councils of four universities: KhDAK, KNUKiM, NMA, DAKKiM, and TNU. Approximately 90% of dissertations were completed in the specialty "Theory and History of Culture", which is the most comprehensive in terms of its passport. Such a situation may indicate, on the one hand, the conventionality of the labeling of cultural studies in the existing methodological traditions and, on the other hand, the methodological uncertainty of Ukrainian cultural studies. In most works, the specificity of the research methodology is revealed through the concept of "interdisciplinarity", but it is explained depending on the subject of analysis, such as historical, ethnic, and global processes and phenomena that are conditionally united by their cultural content or context. Therefore, the theoretical range researchers offer becomes so wide that the question arises about the feasibility of a clear definition of the disciplinary status of cultural studies. Based on the analysis of scientific research problems, it is possible to generalize the theoretical priorities of cultural studies in Ukraine, considering the number of already protected works. First, this is research in the problematic field between philosophy and the theory of culture; second, historical and cultural research, mainly aimed at the "culture-civilization" problem; third, these are issues of ethnocultural studies; and fourth, applied aspects of cultural activity. Therefore, cultural studies is undoubtedly an innovation in domestic academic science, which, according to its features, turns out to be a transformational model of the formation of the modern paradigm of domestic socio-humanitarian knowledge. Adapting to established scientific models, it represents hybrid theoretical schemes reflected in the construction of the very system of knowledge about culture, reproduced in the domestic academic environment. The existing differences between domestic and foreign scientific practices of cultural research allow us to talk about the inconsistency of the forms of the disciplinary scientific nomination of cultural studies with its real critical potential. The indeterminacy of the criteria for the definition of cultural studies leaves the prospect of constituting "post-disciplinarity" on its basis as an open epistemological space corresponding to modern cultural processes (Kravchenko 2013).

Like any other type of mentality, the cultural mentality is based on archetypes and embodied in myths. Cultural myths appeal to larger social mythological systems. It leads to the transformation of culturology into the meaning of culture, which carries the imprint of corresponding chronotypes and worldviews. The current project relies on the idea of a total synthesis of cultures based on universals. The postmodern project, however, is driven by the idea of deconstruction and the rhetoric of differences.

Consequently, universalist culturology tends toward integrating disciplines at the methodological level and modeling a whole-world culture at the subject level. Particularist culturology, at the methodological level, tends toward reducing culturology to one of the components of cultural studies (usually aesthetics and art studies). At the subject level, it examines specific components (genres, styles, and ethnicities) of the phenomenon.

The origins of cultural axiology can be found in the archetypical matrix of Greco-Orthodox thinking, which has provided powerful traditions of cultural philosophy and its value reflection in domestic humanism. The traditional Ukrainian understanding of culture is deeply symbolic, axiological, and sacred.

Ukraine's acquisition of independence, initiated by the Declaration of State Sovereignty of Ukraine in 1990, the Act of Independence of Ukraine in 1991, and the Constitution – the Fundamental Law of Ukraine in 1996, fundamentally transformed the life of Ukrainian society at the turn of the XXth and XXIst centuries.

The transformation of socioeconomic and sociopolitical life has significantly impacted various spheres of social existence, prompting the search for new essential properties of the cultural continuum distinct from the previous period of the country's historical development. Over the past three decades, the development of cultural phenomena in Ukraine has manifested in the rapid growth of innovative processes driven by the overall movement of society toward national-cultural and spiritual revival. At this stage of state building, there has been a notable intensification of cultural studies. It may have accelerated the recognition of cultural studies at the level of the Cabinet of Ministers of Ukraine. A December 13, 2006 resolution included it in the list of fields of knowledge eligible for academic degrees. The institutionalization of cultural studies as a science occurs in a situation where the dynamics of complex, contradictory, and not always unambiguous social processes at the turn of the XXth and XXIst centuries lead to global changes in all spheres of humanity's economic, political, and cultural life.

Until the mid-1990s, the existence of cultural studies was only associated with scientific centers of the National Academy of Sciences of Ukraine (the Institute of Art History, Ethnology and Folklore Studies, the Institute of Literature, and the Institute of Archaeology) and higher educational institutions of culture. Today, cultural issues fall within the scope of scientific interests of both the aforementioned institutions and the new ones, such as the Institute of Contemporary Art Problems and the Institute of Cultural Studies of the National Academy of Arts of Ukraine, scientific departments of universities, higher art educational institutions, and research institutes and centers affiliated with the Ministry of Culture and Tourism of Ukraine (Ukrainian Center for Cultural Studies, Research Institute for Heritage Studies, Les' Kurbas State Center for Theater Arts). Integrating cultural studies primarily in the university scientific environment results in a specific diversification of research problems. In recent years, educational and research units presenting themselves as centers of cultural studies have been established in almost every university.

The result of scientific knowledge evolution is the formation of a new style of thinking and the emergence of new paradigms in understanding the past and the present, as well as vectors of cultural science in the study of cultural components from the perspective of its interdisciplinary connections. The subject field of cultural studies has expanded, allowing for variational search strategies and approaches. The multidisciplinarity of cultural studies significantly broadens the possibilities for a flexible understanding of cultural practices.

At the same time, the regional aspect of domestic cultural studies remains the least developed. It is primarily caused by the following sociopolitical circumstances:
- The rigid centralization of management in all spheres of Ukrainian society throughout most of the 20th century;
- The policy of equalization created a perception of Ukrainian culture as "unified and indivisible," which does not allow for any ideas about the regional artistic diversity of Ukraine.

Moreover, the "dramatic fate of national state-building has caused many significant deformations in the field of humanities, depriving them of integrity and balance."

That is why humanitarian thought in the past decade has rapidly developed toward restoring the integrity of understanding sociocultural processes, integrating various fields of knowledge, and, particularly, seeking specific and common characteristics in the cultural-historical development of regions. Gradually, the perception of peripheral centers playing a secondary role in the history of national culture is becoming a thing of the past. It is being replaced by a new methodology for researching cultural and artistic processes – the method of regional cultural studies. According to this methodology, every historical, cultural, and artistic phenomenon of a region should be considered as a self-sufficient whole, with its specific regional manifestations, and as a significant component of national culture in its connections with the achievements and accomplishments of other regions. Regional cultural studies have developed systematic indicators that can be used to determine the specific historical-cultural characteristics and the level of educational and cultural-artistic development of a particular region. These indicators include:
- the geographical location;
- the region's social base;
- the cultural-historical landscape;
- the main types of cultural and artistic activities;
- the region's mental and ideological characteristics.

The intensification of cultural studies in the regional aspect has revealed another distinct tendency in this field: the unevenness of the scientific understanding of the cultural and artistic achievements of different regions of Ukraine.

In Ukraine, artistic education has been developed over several centuries and, by the beginning of the 21st century, had established an effective system of regional extracurricular arts education institutions (children's music and art schools), local

and state higher education institutions in arts and culture, and national and local cultural management authorities. By the end of the 20th century, certain freedom in the content and organization of arts and culture training had been granted to all educational institutions, ensuring a system of unified criteria for evaluating the quality of youth training in collaboration with practicing artists. This regulation is influenced by both internal and external systemic factors.

From their inception, educational institutions have functioned as centers for the formation and preservation of cultural traditions within their respective regions, thus contributing to the overall tapestry of Ukrainian culture. By cultivating the aesthetic preferences of new generations through works of art that have become part of the world's cultural heritage, artistic-educational institutions have molded the spiritual needs of regional societies.

A well-developed network of libraries, museums, and theater-concert organizations in the city, mandated by a special government decree in the 1970s, served as prerequisites for the establishment of higher education institutions in the arts. These institutions not only preserved cultural achievements but also served as their carriers. Only major cultural centers could meet the aesthetic preferences of the population by generating new interrelated cultural systems, including management, educational, and club systems.

The cultural sector in Ukraine comprises numerous cultural and educational institutions, libraries, museums, concerts, and amateur organizations, among others. These institutions operate within a cohesive and extensive system of regional and national connections. Established over many decades at crucial junctures, they have the potential to either dismantle or create systems with more intricate interconnections and elements that give rise to new institutions and systems.

Any of these systems, serving as means of communication between individuals and society, can serve as subjects of cultural studies research. There is a scarcity of comprehensive monographic studies on the history and theory of the current state of this field. Furthermore, there is a shortage of scholarly works presenting contemporary perspectives and ideas concerning the role of cultural studies in the sociohistorical and cultural-artistic processes of the 20th century.

5. Conclusions

Hence, cultural studies are gradually being transformed from an abstract sphere of philosophical speculation into a scientifically significant field with practical implications. This assertion is substantiated by analyzing candidate and doctoral dissertations, which reveal a shift towards applied science. Cultural research effectively mirrors the distinctive feature of contemporary scientific practice, namely, interdisciplinarity, thereby significantly enhancing its capacity for the flexible understanding of cultural practices. These developments are grounded in objective factors, as the network of educational institutions, creative collectives, concert venues, and other organizations in the realm of musical arts is notably extensive.

Our ongoing research endeavors will facilitate the identification of factors responsible for preserving the integrity of Ukrainian culture within its diverse regional contexts. The exploration of the mechanisms governing the operations of these systems as fundamental constituents of Ukrainian culture will serve as a source of inspiration for the development of regional studies at the national level.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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