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AQ	SAFETY AND HEALTH PROTECTION, SAFETY IN OPERATING MACHINERY

## ARTIFICIAL INTELLIGENCE TODAY

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**Abstract:** The article aims to analyze the possibility of creative processes in artificial intelligence neural networks. In the past, AI was used to help people complete routine tasks. Whether automating functions, delivering optimized solutions, or a personal assistant, artificial intelligence is excellent at recognizing patterns and generating results that would be hard for the human brain to detect. Now we are seeing a shift in the use of AI in creative projects. AI can showcase a wide variety of work, and artists are using it as a tool to push creative boundaries in ways we have never seen before. Artificial intelligence is shaking the foundations of our existence, demonstrating how much of what people do, machines can do just as well, if not better. Based on the study of the functioning of modern artificial networks, the idea is substantiated that AI can participate at certain stages in the creative process as an independent actor. The creative process includes the steps of discovery and composition. At the same time, the latter in artificial neural networks takes place as a choice of known algorithmic combinations for creating a new object. The study explores the abilities of AI neural networks and determines the advantages of human creativity as a conception of new knowledge about the globe.

**Keywords:** Artificial intelligence, Creativity, Neural networks, Technological evolution.

### 1 Introduction

With the development and changes in information systems and their qualitative complication, they have delegated more unique operations to humans [24]. In many processes, humans have ceased competing with machines, and even information management functions are no longer exclusive to them. At the same time, the role of creativity, including the creation of new knowledge, remains fundamental for a person, not only in comparison with the animal world but also concerning "smart" information systems.

Whether a modern device, such as a neural network, is capable of creativity is, on the one hand, a matter of time and, on the other, a matter of principle [19]. This scientific article will present and discuss the main arguments for the issue raised. For this, the issue of creating models of the creative process in artificial intelligence (AI) neural network ecosystems, excluding human participation, will be investigated.

### 2 Literature Review

In scientific terms, "artificial intelligence" is a computer program or machine that can apply its intelligence to infinite tasks, from making coffee to building nanorobots, and can also reason critically and think outside the box [1]. For such reasons, the system for determining a dog's breed from a photo cannot be called real artificial intelligence, although it was built using different techniques. It was proposed to introduce additional terms for dividing artificial intelligence into subcategories following its capabilities to avoid confusion. Three types of AI were identified: (i) narrow (weak) AI, (ii) general (strong) AI, and (iii) super AI [29].

Narrow AI applies its "intelligence" to a limited range of tasks. These include virtual helpers, Google Assistant and Siri, and recommendation systems on Netflix, YouTube, or Google Translator [3]. It would be appropriate to call all the technologies that today are called "artificial intelligence" weak since the scope of their application is relatively narrow. They cannot think creatively, develop something new, or act spontaneously, but general AI is opposed to weak artificial intelligence. It is a system capable of applying intelligence to many unintended problems [5]. This quality can probably be called flexibility of mind, multitasking, or creativity among people. That is, the general AI will correspond to the human level of intelligence. It will not need instructions and support from a person. It is expected to understand the existence of the environment and be able to act autonomously in various situations. Autonomy also refers to the ability to think critically and express one's opinion.

Such a machine will be able to communicate with a person almost on an equal footing and offer its solutions to problems that are important for a person, such as, for example, the creation of new drugs.

Many scientists agree that the fundamental factor for the emergence of such a machine will be the ability to learn because learning is one of the main components of intelligence [2, 12, 27]. Computers will be able to acquire knowledge and life experience like a person, learn from their experience, and, following this, constantly improve their thought patterns and behavior strategies. In the language of computer science, they will reprogram themselves with the goal of continuous self-improvement. Most likely, they will become partially or entirely autonomous because they will understand their needs and be able to adapt to environmental conditions [23]. There are already examples of AI that act as independent artists, writers, and musicians [9, 11, 15].

According to some predictions, general intelligence with the ability to learn will be reached in 2030 [4]. At some point, it will inevitably surpass a person's brightness due to unlimited computing resources, a large amount of memory, and the absence of other limitations inherent in a person. As a result, computers are expected to be billions of times more intelligent than humans by 2045. Then the level of superhuman or super AI will be reached, which is described as "intelligence that is much smarter than the best human brain in almost all areas, including scientific creativity, general wisdom, and social skills" [23]. But for that to happen, you first need a computer with the ability to learn – this is the subsection of artificial intelligence called "machine learning."

### 3 Materials and Methods

The research methodology is based on the principles of modern cognitive philosophy and the theory that creativity is a complex of analytical, synthetic, and practical abilities for processing new information with the subsequent transition of information processes into automatic ones, free from consciousness control.

A detailed analysis of the emerging trends towards the development of existing and the construction of new neural networks with creative properties is available in the latest works of researchers in transhumanism [4, 19]. The issue of creativity, touched upon by the publications of experts on AI neural networks, is the choice of direction, subject, and result of imitation or creation in neural networks of a supernatural phenomenon of human activity. The most important conclusion is that the study of the creative abilities of AI neural networks is the central problem of scientific research about AI [23].

The creative process marks the production of a product that is different from the previous ones [30]. In this perspective, a person is the exclusive owner of the conscious ability to create. At the same time, another participant in the creative process is the natural environment, which for many centuries has been demonstrating the most impressive results of genuine creativity, which has been noted as "creative evolution" [10]. Nevertheless, when discussing the models of the creative process, the prominent place in them is occupied by a person with his ability to think and create. The constant appeal to thinking and awareness of such an action encourages us to think about the need for a conscious property of the creative process. In this case, the creative process must have targeted and rational settings.

### 4 Results and Discussion

A creative subject can use objects with unknown and new components, choose environmental options, and adapt external conditions to special needs [20]. The most important feature of the creative process is the ability to operate with unique knowledge as a result of applying executive components and

knowledge acquisition components to new information. The intellect reveals itself through various types of activity, primarily including operations for selecting, reserving, and managing data and creating new information products. Anthropogenesis led to the formation of consciousness as a comfortable and fast system for working with information coming to a person, the ultimate goal of which is to control such a complex organic environment as the human one. Are modern neural networks capable of such activity? The developments of recent years in the field of AI have been associated with the creation of analogs of the logical activities of the human intellect, the most notable of which was manifested in solving puzzles and other games. But such neural networks could have been more effective at work and in solving everyday and scientific problems, which are mostly dynamic [8].

For example, the transformation of text between several languages is an original task for which creative methods are used in the case of a person. However, the language systems of people do not have a formal basis, and speech constructions operate outside of any regulations. This means that the automation of language transformation implies the deliberate introduction of traditional elements into a flexible language structure or an appeal to an appropriate structure that can work with such a natural system – an AI neural network. So, for such operational linguistic situations, neural networks should be used, along with linguistics and its derivatives, syntax, and semantics, the subject of a particular linguistic culture, and methods characteristic of its content, with the solution of their corresponding tasks. And the most advanced neural networks are still significantly inferior to humans in all similar situations and functions.

The first stage of the creative process, discovery, is based on a knowledge base that determines the effectiveness of the innovative operations of the process [14]. Although this first stage episode is defined as the critical starting point of the creative process, modern AI neural networks begin to meet substantial obstacles even at it. The most crucial goal of neural networks is to teach AI non-standard behavior and similar solutions in emergencies specified in an indefinite way, which, in turn, dictates that neural networks must have goals set to achieve [28]. For this reason, such AI neural networks should be considered successful, based on which their specialist developers attempted to form an information system of thinking and reasoning. However, only the complete introduction of such a volume of knowledge into the neural network base that would allow AI to reason and make a decision is an incredible effort so far. As it turned out, most people allow atomicity in their conclusions more often than it seems since they need more verbal and other tools to represent their knowledge fully.

The formation of one or another system of people's world outlook, on which the prism of the worldview is built, stems from both emotions and the rationalism of personal properties [4]. Each person has a considerable base of specific knowledge. We have accumulated all this knowledge since birth, exploring and trying everything in our path. In this way, it became known that snow turns into water at a warm temperature. In the same way, we will become aware of even more things that modern artificial intelligence structures still need to become familiar with [5]. Currently, even the most productive and powerful computing center, consisting of a combination of servers and neural networks, needs such resources. So far, the intellectual abilities of the above system allow for solving only problems that are characteristic of the average person's early development stage.

Scientific progress and technological innovations are still on the way to achieving an AI structure that can reason and compete with humans. Today's most striking example of a sufficiently developed AI neural network is the ConceptNet semantic neural network [6]. The network structure is built from nodes, with its layers and conceptual content connected by small natural language phrases or sign relationships between them. They can be any phenomena necessary for computers to search for information successfully, give answers to people and identify their intentions. ConceptNet is a massive congregation of

information bases with about 300,000 concepts that describe many interactions and relationships among objects [6], such as: "A enters B," "B separates from A," etc. Despite the enormous amount of evidence available to neural networks and their successful application in tests, they can still not cope with tasks that require a proven empirical basis and rational human judgment.

Composition is an important stage in the creative process [18]. The consequence of the creative process is the creation of a new object or the identification of non-obvious connections between phenomena and processes. Most human creative activity products are easily defined as newly formed combinations of previously produced products and conclusions [22]. This view allows us to interpret the creation of models in the structure of the AI neural network as a technique designed to help discover new combinations on the plane of reality. They have every chance to appear both from the structure of each previous element and their general concentration due to the impulsiveness of their changes. This gives reason to designate the main strategic principles of the compositional stage, which complement many others:

- A. A combination of opposite properties in one element [26];
- B. Addition of an existing element with a completely new, previously unknown property [7];
- C. Mixing elements that differ in appearance [25];
- D. The disposition of a known element in an unknown environment [21];
- E. The disposition of an unknown element in a known environment [17].

The clearest example of the result of such a combinational creation is modern musical compositions. There are two branches here. The first is the production of musical arrangements for the artist to perform. For example, the most progressive neural network structure that creates such products is no worse than any master of music, the system of Aiva Technologies [15]. Artificial Intelligence Virtual Artist is based on highly complex learning algorithms using reinforcement techniques. Such algorithms allow massive amounts of information to be fed to computers, enabling them to make decisions about any other information. Such information passes through the neural networks of the program, which appear as algorithms that process information and are similar to the human brain. Such networks enable companies like Google, for example, to analyze myriads of graphic images with a broad interpretation that is exceptionally human-like. Aiva Technologies writes and produces scores for movies, video games, movie trailers, or commercials. Sometimes, AI neural network acts like a 24/7 composer, never running out of inspiration and always doing what is asked. Customers that visit the company set out goals for AI, and it runs several iterations until the notes satisfy the customers' objectives. Those same clients then play the composed compositions with live or virtual musical instruments in a studio.

Another characteristic example is the production of compositions of modern electronic genres with their subsequent performance with the exclusive participation of electronic equipment [13]. This aspect is the engineering environment responsible for synthesizing music sounds using digital signals. Today, such compositions, born due to the connection between software and digital instruments, are divided into a certain number of new genre directions that differ from each other in combined styles (indie rock, pop rock, etc.). Today, such a product of neural networks is a daily developing and popular product for many people, the success of which is complemented by the vigorous activity of robotics, which radically changes the musical plane [15].

Remembering the skeptical forecast regarding the lack of creativity in the machine due to the probable lack of effectiveness of the process [16], today, it was found every reason to correct this opinion unwittingly (Figure 1).





Figure 1 – AI-generated work, “Théâtre D’opéra Spatial,” took first place in the digital category at the Colorado State Fair via Jason Allen, *The New York Times*

AI is not intended to create innovative inventions since its main task is the consistent and unconditional execution of algorithms people develop in the form of program code [21]. This should also include the provisions of the term “innovation” to any productive product, skirting the attention of the subject of such a product. With the constant filtering of products by issues, we run the risk of running into an expansion of the concept of “new” – on the one hand, the results of human activity that are familiar to us will be located, and on the other, the products of the action of AI neural networks. The same applies to the correlation of “innovations” – this will have to be done separately on both sides. Thus, we will traditionally follow the logic and common sense, allowing creative competition between people and neural networks to occur. Of course, this will be a competition for the status of the strongest and the only one in the best traditions of social Darwinism. The victory can be used by any of the parties in case of their success.

## 5 Conclusion

Often, the practical side of studying the problem of the creative process of neural networks gravitates towards the desire to displace a person from the position of the sole right to own creativity, emphasizing the growing role of AI systems in this regard. Such an approach to considering the problem is based on the understanding of creativity as a mechanical process of selecting various elements to create an object that is new in composition. At the same time, the development of humanity in the direction of merging with artificial info-, techno-, bio-, and cognitive systems can have two main scenarios regarding creativity: regression of a person's natural ability for creativity and its reduction to a highly developed ability to model new compositions from existing elements or, as a result of a technological breakthrough, the successful endowment of AI systems with the potential to create unique, previously non-existing features.

Access to advanced information tools for all operations has modified human capabilities in many ways but has largely abolished sensationalism. The annual growth in the abilities of computing technology and gadgets has increased the logical and computational properties of people's thinking. Still, it has reduced many areas of the universal human knowledge base that were previously useful. For example, the average student of the initial modules of the mechanics and physics direction no longer has a formula for finding the root in the square, does not have derivatives of various cosines in memory, and the most depressing thing is sometimes unfamiliar with the correct definition of these same cosines. This makes one doubt the proportional rise of the properties of the subject's thinking in other areas.

The optimal scenario for the interaction of people and neural networks would be to see productive and beneficial creative cooperation between the parties, where the ongoing creative development would give its results for the benefit of humanity. The creative process is only complete with a new object in the

form of a result. In this position, AI neural networks, like humans, produce new products. Once again, there is a solid need to recognize the existence of a stable space of reality for creative competition between people and AI neural networks. The creative process itself stems from two stages in the form of discovery and composition. Today, neural networks cannot compete with people at the discovery stage since they still need a sure semantic base for this, which any person always has to conclude. And at the composition stage, AI neural networks use established algorithms for building a new object from complex combinations. The best and most promising position for people today is to maintain the pace of their progress, considering the improvement of technology.

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## MULTICULTURALISM IN EDUCATION: TEACHING FOREIGN LANGUAGES AND TRANSLATION

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**Abstract:** The article is devoted to the growing role of multicultural education and concentrates on forming a personality that can easily adapt to an intercultural environment. The study thoroughly analyzes the forms, techniques, and means used in the education process, considering the European experience, and discusses practical ways of organizing scholarly work in a foreign language and translation, which contribute to the mastery of not only the skills and abilities of communication in a foreign language, but also the understanding of a different culture. The importance of extracurricular work in a foreign language is noted, which contributes to the formation and maintenance of interest among students in a language and culture other than native. It raises the level of speaking practice and translation skills, expanding students' learning horizons, developing their creative abilities, imagination, aesthetic taste, and memory, and giving them a tolerant attitude towards the carriers of another culture. The article shows different types of extracurricular activities. It is concluded that the system of classroom activities and types of students' extracurricular activities are united by educational goals, the implementation of which creates conditions for the personal development of students, increasing the level of communication and intercultural skills.

**Keywords:** Education, Foreign languages, Multiculturalism, Multicultural processes, Peoples and cultures, Teaching, Translation.

### 1 Introduction

Recently, modern society has been developing into a global and multicultural society [2]. The flow of migrant workers and refugees to European countries from countries with political and military conflicts is increasing. In cities and regions with a high percentage of migrant population, the integration issue is especially acute. Along with teaching foreign languages and mastering professional translation skills from one language to another, it is necessary to restructure the thinking of the mono-national status of countries in favor of a multinational and multilingual society [25]. There is a need to work to eliminate the stereotypes that have developed in many countries in relation to other peoples and their cultures, i.e., increase their prestige in society. Transformations in the world have changed the infrastructure of society towards its democracy and multiculturalism. It led to the activation of the national self-consciousness of ethnic groups and indicated the need for a new worldview aimed at the integration or preservance of cultures with the aim of their further rapprochement, cultural and historical interaction, and spiritual enrichment. Under these conditions, new values and goals of education are being formed. The importance of multicultural education and the role of the cultural component in the pedagogical process is increasing [1]. This process focuses on developing a creative and humane personality, capable of an active and effective life in an intercultural environment. It will be about the social and cultural transformation of the education system in the field, directly teaching foreign languages and translation.

Dialogue of cultures is a concept that has received wide circulation in philosophical journalism and essayism. It is often understood as the interaction, influence, integration, or repulsion of different historical or modern cultures as a form of confessional or political coexistence. In philosophical works, the concept relating to a dialogue of cultures is put forward as a possible foundation of philosophy. The meaning of education in the culturological aspect is to ensure cultural maturation, create conditions for fully realizing the individual's potential, and be

open to the dialogue of cultures and cooperation [15]. The content of education is considered a pedagogically adapted social experience of humankind. Following cultural conformity, it is believed that integrating educational and extracurricular work will serve the better basis for teaching students tolerance and respect for cultures other than their native and improving their speaking skills via communicative activities [16].

The isolated existence of peoples and cultures may turn quite complicated since the intensification of migration and demographic processes, the increase in the number of ethnically mixed families, and the emergence of multinational teams in social institutions (such as education) significantly expand the scope of interactions of diverse cultures. Education has always been an institution for translating the cultural field of various civilizations, which in its essence, defines people. Using foreign language teaching tools [5] to represent the variability of cultures of the native country or region can help strengthen ethnic self-identification, form a tolerant attitude towards representatives of various ethnic groups, and foster a culture of interethnic interaction. Considering the new needs of the societal development, an additional specialty, Intercultural Pedagogy, has already appeared in various universities in Europe.

### 2 Literature Review

For a long time, there have been active discussions about how education should be changed to consider the interests of the incoming and receiving parties. In a foreign language classroom, students most often encounter the study of a foreign culture, a foreign way of thinking, and a foreign language in everyday life [39]. There has been a clear tendency for reduced education organization in the context of multicultural development to implement individually shaped educational courses, which in its scope may contribute little, taking into account the interests of each country [3]. An understanding has emerged that focuses not so much on the specifics of the education content, i.e., enriching various disciplines with a cultural component, but also on searching for new educational practices with researchers from different countries.

Today, changes in education closely relate to the issue of the intercultural dimension [40], which was clearly articulated at the Conference of European Ministers of Education from the Member States back in 1983 due to the difficulties faced with the integration of migrants. The inclusion of a "European dimension" in the curricula during the implementation of the "Secondary Education for Europe" project intended to prepare young people for life in a "multilingual and multicultural Europe". However, the researchers note that such recommendations could not accurately determine the content aspects of education, except for a language [11]. In the 1980s, Europe at School and Modern World at School programs addressed the need for paying more attention to such phenomena as nature and civilization, which had been almost wholly supplanted in school curricula. With the introduction of a "European dimension" into the teaching of various subjects, it became possible to balance better the teaching of literature, geography, art, and culture [6]. At the same time, it is emphasized that such recommendations could not influence the formation of ideas about a certain "mandatory" content of education [35]. Moreover, according to experts, such proposals could only be successful.

Representatives of the Council of Europe noted that they needed the right to change existing programs; the only thing that could be done was to propose and formulate recommendations. This situation has become quite evident in connection with attempts to introduce a "European dimension," the presence of which in the curricula turned out to be formal. That is why education, which is changing in the context of multicultural processes [15], turned out to be not so much about the teaching of some other

subjects but somewhat different teaching within the framework of an already existing set of topics and programs. In this regard, the "European dimension" example has also become very indicative. In the Resolution adopted by the European Ministers of Education in 1997, it was pointed out that education, developed in the context of multicultural processes, should not be based on creating a new subject but on the broader use of cross-disciplinary methods and the principle of "teamwork" among teachers. In other words, the enrichment of educational practice and the expansion of interaction between various states transform education, which develops under the influence of multicultural processes [21].

To date, the level of ethnic intolerance, and the prevalence of negative ethnic attitudes and prejudices, especially among young people, remain pretty high, and the level of multicultural competence is low [16]. According to experts, in adolescence, the accumulation of acquired ethnic values, symbols, and stereotypes of behavior, laying the foundation of ethnic self-awareness and the foundations of culture and interethnic relations, is completed. Education, performing social, cultural, and pedagogical functions under appropriate organizational and substantive conditions, plays a vital role in this process. Many works recognize the importance of including an ethnocultural component in teaching a foreign language [7, 9, 20, 28]. On our part, it is taken further, i.e. to teaching translation in a foreign language classroom. At the same time, the analysis of theoretical literature and educational practice shows that the possibility of including an ethnic-regional component in the content of students' academic activities needs to be sufficiently studied and implemented.

### 3 Materials and Methods

Following cultural conformity, it is considered reasonable to integrate educational and extracurricular work as the basis for teaching students foreign languages and translation via communicative activities. One of the most important goals in education is the effective organization of educational and extracurricular work in a foreign language [22]. It contributes to the mastery of not only the skills and abilities of communication in a foreign language and implementation of professional translation, but also acceptance and/or integration into and understanding of another culture. The modern educational paradigm is focused on the competence-based model of teaching a foreign language, which makes it possible to introduce innovative approaches into the educational process. This model is a multi-level system of competencies that represents the socio-cultural process of foreign language proficiency, has heuristic value, and provides the ability and readiness for intercultural communication [4] in the target language.

The purpose of learning a foreign language is to develop students' multicultural, professionally oriented competence, expressed by a set of skills and abilities [17]. By competence, it is meant not so much the formed and improved skills or the skills of listening, speaking, reading, and writing acquired at a particular stage but rather the ability to communicate through the prism of multiculturalism. This allows using a foreign language in real day-to-day communication, including for professional purposes. Professional multicultural competence implies the ability to communicate professionally in one's own country and abroad in an intercultural environment [36].

In an actual educational process, these competencies should be carried out in a complex and contribute to the optimal assimilation of a foreign language [41]. Moreover, multicultural competence is especially in demand in the modern world [18], which confirms the need to implement a competency-based model in teaching a foreign language and translation in higher education.

The competency-based approach involves personal interaction between a teacher and a student. In this interaction, the student becomes an active participant in the educational process, empowered to independently choose the current needs and needs

of the modern educational space, and is responsible for self-control of the developed competencies [14]. Under conditions of reasonable autonomy, the student is "delegated" some of the teaching functions, primarily monitoring their own language progress. When determining a student's language level, it is necessary to consider their achievements during the period of learning a foreign language rather than the language skills in the group [38]. Thus, a significant achievement of the competency-based approach is the ability to track an individual development path in mastering foreign language skills and growing abilities, including through the optimal organization of students' independent work, which is a crucial element of the educational process.

Any language system is a socio-historical product that reflects a people's history, culture, social relations, and traditions [14]. According to a figurative definition, language is the soul of a nation; it captures its entire national character. A foreign language, unlike other subjects, is both a goal and a means of learning. The specifics of a foreign language lesson are the conditions, techniques, and methods of mastering foreign language means and ways of expressing thoughts, and assimilation, which implies the presence of a student's communicative need to generate or receive a speech statement in a foreign language. An equally crucial distinguishing feature of a foreign language lesson is its focus on developing students' communicative abilities by means and methods of the foreign language being studied. Issues related directly to classroom activities and conduct primarily link to many pedagogical, linguistic, and methodological challenges [31]. The optimal organization of classes depends on the correct understanding of the tasks – what and how to teach. The purpose of language teaching is to transform the studied language from a subject of study into a means of teaching and education [29]. Depending on the dominant goals and characteristics of students' assimilation of knowledge, skills [38], and abilities, the following links in the learning process in the lesson are distinguished:

- Formation of new knowledge,
- Consolidation and improvement of knowledge,
- Formation of skills and growing abilities,
- Application of knowledge, abilities and skills in practice,
- Repetition,
- Identification of difficulties,
- Systematization of knowledge, and
- Monitoring the assimilation of knowledge, skills, and abilities.

Through each lesson, within the framework of educational activities, the actual states of the personality qualities being formed are excited. Their stimulation and reinforcement from lesson to lesson contribute to developing a holistic personality quality.

### 4 Results

The basis of teaching a foreign language and translation in multicultural education is made of four educational areas (Figure 1).

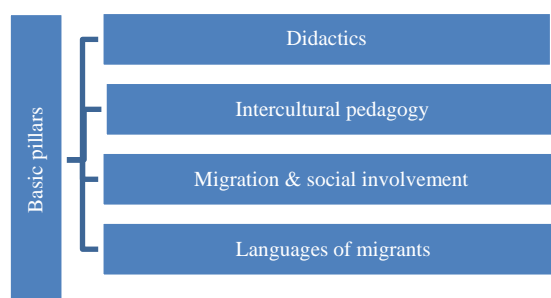


Figure 1 – Basis of teaching a foreign language and translation

1. Didactics and methods of teaching a foreign language as a second language:

- Bilingualism and multilingualism in school, family, and community.
- Didactics of a foreign language as a second language in multilingual and multinational groups, taking into account the language specifics of school subjects and various professions.
- Foreign language and native language with the literature of migrants in comparison.
- Foreign language and its forms, structures, and functions.

2. Intercultural pedagogy:

- Education and socialization from an intercultural perspective (interdepartmental conditions, pedagogical programs).
- Education and teaching in multilingual and multicultural study groups and individual support programs.
- Intercultural didactics, subject and non-subject programs.

3. Migration and social involvement:

- Social, economic, cultural, legal, and political consequences of migration.
- Theory and history of migration, nation, and racism.
- Analysis of the situation of migrants; issues of social involvement and isolation.

4. Languages of migrants:

- Learning the basics when relating to one of the languages with migrants and analyzing their learning process.
- Application of acquired knowledge for contrastive linguistic analysis.

From the European experience, the student should submit one qualified credit and two or three standard credits for each subject area to the examination committee upon graduation. The requirements for the credit are determined by each teacher individually. In addition, a student has to write a work or report on a seminar topic. Furthermore, testing in the language of migrants takes place in written and oral forms [23]. Finally, six months before graduation, the student must choose the format of the exam and three examiners from those proposed by the faculties representing all three first educational areas and report their decision to the examination committee.

There are two forms of the exam:

- A four-hour written work as well as an oral examination consisting of two parts of 20 minutes each (covering the first three educational areas);
- One-hour discussion on a completed and written project for one of the topics in the specialty.

For the above, the advantages and disadvantages of organizing classes in multicultural pedagogy and the content of studies should be noted [19]. This specialty is well structured in the above educational areas, requirements for each area – number of attendance hours and qualified / unskilled credits, conditions and requirements for final examinations – written and oral examinations in three educational areas, or oral defense of a conducted and written project in one or several educational areas. Each lecture and seminar has a commentary in which the teacher briefly describes the course content and the requirements for the credit. This allows students to orient themselves in the proposed classes, considering their inclinations and needs, and make an appropriate choice. Students with study experience need to have a choice of lectures and seminars in each educational area. Each student can study one or two educational areas out of the four proposed in-depth, considering future work. In this context, the choice of the form and content of the exam is also essential.

The teaching content and presentation level of most lectures and seminars within the specialty correspond to its goals and objectives [32]. Paramount for this specialty and for students who have completed their basic studies are seminars with a practical bias and practice opportunities.

Among the areas for improvement of the study organization is limited access to seminars. Students may be denied participation because there is a limit on the participants for each seminar. The result of multiple refusals to participate in seminars leads to potential delay in studies; thus, learning time may extend [37]. Students will often have to ask the teacher for an opportunity to increase the number of participants in the seminar. There is no centralized coordination of the class schedule since there are no fixed groups of students, as in the domestic education system. It often happens that classes chosen by the student overlap, so they have to select favor of one, leaving out the others. An organization of the educational process in some European universities often speaks of the need for more methodologists and curators; in many a case the student should organize their curriculum. For international students, this is often another of the learning difficulties in general [8].

As for the content side of the training, the number of seminars with a practical bias or workshops in general is not sufficient, nor is that of seminars on methodology, psychology, multicultural competence, and conflict management [20]. Moreover, there are no special seminars and lectures for this specialty. Instead, students are offered the classes, taught at these faculties and for other specialties, the content of which generally fits the four educational areas of this specialty.

In recent years, due to the signed Bologna Convention, there have been organizational changes resulting from the modularization of the educational process in universities. Multiculturalism in pedagogy has become part of the mandatory module of intercultural education [38]. There is also a separate specialty for graduate students – intercultural communication and education. The study covers four semesters. During this time, the student must receive 40 points (Credit Points) in the required modules and 36 points in the elective modules. In general, the study covers more than 100 topics. The required modules are as below:

1. Ethnology and language:

- Introduction to ethnology, and
- Ethnolinguistics.

2. Interculturality and migration:

- Globalization, urban life, interculturality, and
- Public aspects of interculturality.

3. Language and communication:

- Fundamentals of interpersonal communication, and
- Discourse and pragmatics in an intercultural context.

4. Intercultural education:

- Research in the field of the education system in various countries, and
- Theory and practice of intercultural education.

5. Social and communicative psychology:

- Conflicts and cooperation: socio-psychological perspectives,
- Social psychology (lecture), and
- Communication and interaction.

Optional modules sub-break in 9 relevant sections:

1. Construction of cultural identity:

- Cultural identity in cultural space.

## 2. Transculturalism:

- Cultures in their development, and
- Transculturality in the artistic embodiment.

## 3. Mobility and citizenship:

- Seminar on project preparation, and
- Preparation of presentations and presentations of projects *per se*.

## 4. New media and intercultural communication:

- Mass media and communicative psychology,
- Cultural diversity in new media, and
- Intercultural communication on the Internet.

## 5. Multilingualism:

- Basic concepts of multilingualism,
- Empirical work in multilingualism research, and
- Language contact, multilingual societies.

## 6. Learning a second language:

- Second language acquisition,
- Psychological and sociological perspectives of language learning, and
- Language acquisition, bilingualism, and language learning.

## 7. Diagnosis in the context of multilingualism:

- Methodical bases of diagnostic research,
- Methods for diagnosing competencies in the context of bilingualism and multilingualism, and
- Application of diagnostic procedures in practice and scientific research.

## 8. Foreign as a second language:

- Linguistic foundations, styles, and dialects, and
- Didactic and methodological principles, processes, and forms of work in teaching a foreign language as a second.

## 9. International collaboration and global learning:

- Sociology of developing countries, global economic problems,
- Migration and development, and
- Global learning.

Seminars are included in the module on language foundations and didactic and methodological principles of teaching a foreign language as a second language for undergraduate students [22]. Bachelor students and future teachers of various types of schools can also choose language seminars. At the first seminar, students present their native languages compared with foreign languages at different linguistic levels (phonological, morphological, syntactic, semantic-stylistic, and cultural). The seminar objectives are as follows: through language comparisons, to identify differences and commonalities in the structure of languages, taking into account the typical difficulties (interference-transfers) that arise when learning a second language under the influence of the first. Understanding the many sources of common errors in language learning optimizes the process of language teaching. Also, it develops a tolerance for specific linguistic and intercultural difficulties in mastering a foreign language and culture. An important goal is also to comprehend one's linguistic and cultural identity and to change attitudes towards the so-called non-prestigious languages of the peoples of Europe and other continents.

Students get acquainted with various aspects of intercultural language communication at the second seminar. This topic is considered at the linguistic, sociolinguistic, psycholinguistic, and pedagogical levels. Acquaintance with different theoretical

models allows a deeper and more comprehensive understanding of the problems of linguistic and cultural integration. Students should, in the first seminar, prepare and conduct a presentation of their native language in comparison with a foreign language and possibly a dialect of the language and write a written work in which they analyze the languages presented at the seminar to receive a qualified credit. The qualification credit for the second seminar consists of an abstract and presentation on one of the seminar topics and a written work analyzing the seminar content and its applicability in practice. To receive an unqualified credit, one of the types with tasks is sufficient. There is another form of credit, the main one in some European universities, the so-called "homework" (a term paper in miniature). This is an in-depth critical presentation of scientific positions on a specific topic, discussed at the seminar in the appropriate format and volume (determined by each department individually). The positive aspects of such teaching include a reasonably free choice of topics and material for seminars and the absence of requirements for the course program design. The teacher has a clear idea of what is being taught. Already at the first lesson, they must present to the students the thematic plan and structure of the entire course, the topics of the abstracts (if this form of work is available), the list of references, and the requirements for credits. But the relatively free choice of course topics and the change in course topics from semester to semester by each teacher leads to the absence of a permanent educational canon, characteristic of the usual educational system.

The absence of methodologists is compensated by the intra-university electronic system, in which the student can register for seminars and lectures and print the credit form upon completion of the course and electronic receipt of the credit. The teacher fills in the specified system data on their seminar or workshop (schedule, audience, number of hours and participants, summary, and course requirements). After registration, they can print a list of participants in the course. The same system is used for billing. The teacher can also add to the list of participants students, which have been rejected by the system, but neither can change the registration within the module.

Students' motivation in the content of the educational process leaves much to be desired [13]. Due to the organization of the educational process (obtaining a certain number of points and credits in various modules), students often come to classes primarily for credits rather than for knowledge. But the gradual transformation of studies into management does not correspond to the original idea of the university (acquisition of knowledge).

## 5 Discussion

The emerging phenomenon of cultural diversity is regarded not as a simple sum of cultures but as qualitatively different multiple identities [28]. Cultural diversity sets the basis for combining other ethnic experiences, thanks to which the country can become a society capable of interaction and enrichment. This unity is created based on tolerance for differences and the willingness to believe that community is strengthened through the exchange of different development paths since there is no single way to think or be that is best for everyone. This is what should become a fundamental component of education that develops in the conditions of multicultural processes.

There is a clear need to streamline existing knowledge and positions regarding transformational processes in education and model development: at the first level, changes in the content of education are recorded; at the second, the improvement of educational practices; and at the third, optimization of the ways of interaction between educational institutions. The teacher is the leading role in creating forms when organizing room for learning. They select the optimal combination of methods, conditions, means of training, activity style under students' characteristics, and learning objectives [33].

Much depends on professionalism, personal qualities, and the ability to interact with people [10]. Therefore, when organizing educational work, forms of organizing learning are used, which



are combined into a frontal, group, and individual forms of educational work and contribute to the effective preparation of communicative activities. However, the lesson scope needs to fully solve the problem of teaching communication in the language [24]. Therefore, the teacher's task is to create an extracurricular artificial environment to teach communication in a foreign language.

Extracurricular work is specially organized extracurricular activities that contribute to the deepening of knowledge, developing skills, satisfaction, and developing interests and abilities. Experience and observations show colossal potential in extracurricular work when learning a foreign language [27], and acquiring or polishing translation skills. Extracurricular work promotes:

- Development and maintenance of students' interest in a foreign language and translation, improving their practical speaking skills;
- Helps to overcome communication difficulties;
- Fosters a tolerant attitude towards a different culture;
- Contributes to expanding their horizons and developing their abilities.

Extracurricular work in a foreign language enables students to use a foreign language as a means of communication; it shows its expansive possibilities.

In many countries, representatives of the dominant population perceive the recognition of minority cultures as a threat to their identity, which causes a surge of nationalism. We need multiculturalism based on the self-realization of different ethnic groups and life by common rules [26].

People who are entirely faithful to their ethnic and religious identity and true to their social mission should learn to live in one world with others who are also true to their mission and identity [30]. In other words, follow the principle of unity of diversity. The agreement focus on diversity recognizes the difference in the motives of ethnic groups: some strive for ethnic assimilation, and others create parallel societies. At the same time, both migrants who want to assimilate and migrants who are trying to preserve their national identity are the realities of today's society. This means that conditions should be for both: the possibility of effective assimilation for the former (teaching the legal framework, language, employment, direct support, etc.) and the possibility of creating national-cultural autonomies for the latter. But all this must be implemented with the current legislation and the formed bilateral (receiving and merging side) general model of tolerant behavior.

Equally important is the fact that different countries are in varying stages of development today, but it would be wrong to believe that some countries are still entirely in an industrial or pre-industrial state. In contrast, others have already wholly entered the post-industrial state. One can talk about which type is dominant in a particular country today, but the interaction of these two civilizational types is essential. It is important to understand that it has an infrastructural character, penetrating from the inside both the being of all humanity and the social life of each individual country, and more and more – the life of every person, their sense of self, values, and life orientations.

The characteristics of the latter determine the existence of the ideas of multiculturalism in the period of globalization [2]. The protest against globalization has a dual effect on the world as a whole: on the one hand, the world is becoming more homogeneous, and on the other, more and more heterogeneous. Homogeneity is that we increasingly present our cultural differences in the same ways that are easier to understand. The new era is characterized by organized cultural diversity, precisely what provides for the emergence of a global culture. Cultural features are formed against a worldwide culture, a new cultural reality. The new global cultural system produces and reinforces differences instead of suppressing them, but these are differences of a particular kind. Their hegemony concerns the

form rather than content. The system of global culture is a common code that expresses differences and boundaries [2]. However, it is already becoming obvious today that not all cultural differences will become part of the global culture, which is undoubtedly worth fighting for, particularly with educational opportunities.

The question concerning the dialogue of cultures is just the name for a complex of other issues [34], at least three: mutual understanding, mentality, and the relationship between culture and language. It is assumed that mutual understanding is a natural, self-evident result of learning foreign languages. However, practice does not justify these hopes. The system does not give the expected result: mutual understanding is too complex, and a phenomenon is expected to appear out of nothing.

Therefore, it is emphasized that mutual understanding consists of the following components:

1. *Sociological aspect.* The awareness of community and one culture's dependence on another.

2. *Valuable aspect.* Only awareness and understanding of the values of another culture provide mutual understanding. Therefore, a mutual understanding based on the recognition of other people's values, the recognition of the other's rights to these values, and respect for these values, can and should be a desirable goal.

3. *Psychological aspect.* Mutual understanding always leads to coordination and cooperation, which is possible only under conditions when:

- The subject of communication becomes personally significant to both the interlocutors;
- Relations of empathy (emotional contact) are manifested;
- Both communicants accepted the situation, understood it, and removed semantic barriers.

Mutual understanding is only possible with the above conditions since there is no main prerequisite for mutual understanding [29]. Its basis is culture. Assigned culture is not always shown in communication but is always implied as the invisible part of the iceberg. People who communicate with each other are united not by what they say but by what they are silent about, although they know. Lacking this, there will be no mutual understanding, which means there will be no acceptance of someone else's mentality.

There are several approaches to organizing the dialogue of cultures:

- The first approach involves the dialogue of cultures in the broadest use in teaching individual subjects: from philology to technology (dialogue as a method).
- The second is the dialogue of cultures in the schools of ethnic diasporas (in a generalized version, multiculturalism; recently, its popularity has grown dramatically).
- The third is the dialogue of cultures as the basis of the entire educational process in classes with a pronounced mixed ethnic composition.
- The fourth is the dialogue of cultures as the core of the entire educational program within an educational institution, the specifics of which involve an in-depth study of a different culture (or culture and language).

In some universities, a short course of regional studies is used in foreign language classes. During such a course, students get acquainted with significant dates from history of other countries, with the inhabitants' daily lifestyle of these countries, and their culture and cuisine. Each major topic of the course ends with a screening of either a feature film or a documentary video on a particular topic, after which students discuss some of the most exciting points and complete assignments. Students are also encouraged to study foreign language culture compared to their native culture and arrange meetings with international students

and teachers. During such events, they undoubtedly begin to understand foreign cultures and behavior better and feel a sense of pride in their culture and country when communicating with representatives of other countries and cultures.

## 6 Conclusion

The priorities in education include ensuring students' academic mobility and integrating the education system and the world's educational system. In addition, it necessitates the preparation of members in a society with a clear ethnic and civic identity owning cultural and linguistic norms, and respect for not only their ethnic culture, but also the culture of other ethnic groups.

By mastering a foreign language and getting acquainted with its relevant culture, students get the opportunity to expand their socio-cultural space and culturally self-determine – to realize themselves as cultural and historical subjects in the spectrum of cultures in a country other than theirs, unveiling the communication potential in both native and studied languages. To completely understand the studied (foreign language) culture, it is necessary to look into the native culture simultaneously since an adequate understanding of others is possible only with understanding the self. In addition, students should understand what culture is, how it is formed, what is included in its scope, and how relationships between cultures are in the modern multicultural world. Therefore, when teaching a foreign language, culture, and translation, it seems appropriate to pay attention to (a) native culture; (b) culture as a theoretical construct; (c) the culture of the country of the language being studied.

Extracurricular activities, which are a logical continuation of training sessions, improve and consolidate the knowledge gained in the classroom. Preparation for extracurricular work is carried out in practical classes using active teaching methods. The system of classroom activities and types of extracurricular activities are united by educational goals for the student; the implementation of these goals creates conditions for the student's personal development, increasing their level of communication and growing their intercultural skills as the basic competence.

## Literature:

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**Primary Paper Section: A**

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## DEVELOPING EFFECTIVE METHODS AND QUALITY STANDARDS IN TEACHING FOREIGN LANGUAGES TO UNIVERSITY STUDENTS SPECIALISING IN HUMANITIES

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**Abstract:** The demand for approvingly qualified specialists capable of establishing business contacts and partnerships with foreign companions, and specialists who speak a foreign language at a professional level, is reflected in the active curricula of universities of humanitarian specialties. A foreign language today is not just a part of the culture of a particular nation, but it is also the key to conquest, a future prosperous career for a young specialist. In the context of improving the quality of teaching in higher education institutions, a teacher needs to know the most delinquent methods of teaching a foreign language, unique teaching techniques, and strategies to optimally select one or another teaching method following the level of knowledge, requirements, and interests of students. Teaching methods are not simple algorithmic units. Their rational and motivated use of foreign language lessons requires an original approach on the part of the teacher. Pedagogy is a science and an art simultaneously, so the path to choosing teaching methods should be based on the teacher's creativity, knowledge, and experience.

**Keywords:** Foreign languages, Higher School, Humanities, Improvement of teaching techniques, Teaching methods.

### 1 Introduction

Achieving a high level of foreign language proficiency is only possible with fundamental language training in higher education. Teaching methods and their development are ordered ways of activity of the teacher and students in the light of the evolution of the educational system, aimed at the effective development of the obligations of academic tasks [2]. The teaching method acts as an instrument of the teacher's activity to perform the leading function – schooling [26]. The teaching method is implemented through some teaching methods, various approaches, and working techniques. Teaching methods are specific learning situations that contribute to achieving a particular method's intermediate (auxiliary) goal. In teaching practice, foreign language teachers often use time-tested standard teaching methods. Sometimes, teaching a language is a somewhat modernized version of the grammar-translation method.

The requirements for a foreign language lesson change over time and the latest teaching methods are being developed [12]. At the present stage of the development of science, the times when the ability to translate adapted, inauthentic texts from a foreign language and vice versa have already passed. Today, the educational process in universities is being reformed under the pan-European requirements for the quality of education: informatization of the educational space, integration processes in modern domestic education, establishing cooperation between universities and European academic institutions in the field of educational and scientific activities, international student exchanges, the possibility of obtaining a second higher education and studying for master's programs abroad. In reforming higher education, educational technologies for teaching foreign languages should also change.

Language education is also being gradually modernized through introduction of a modular-rating system for teaching foreign languages, interdisciplinary integration, democratization, and economization of education, bringing to life innovations in teaching foreign languages [30]. All this puts new requirements for teaching and training a foreign language in universities.

The purpose of conducting a foreign language in higher education at the present stage is to master students' communicative competencies, allowing them to realize their

knowledge, skills, and abilities to solve specific communicative tasks in real-life situations. A foreign language acts as a means of communication with representatives of other nations so that in education, the culturological or intercultural approach to teaching continues to develop in the future within the framework of the concept of a dialogue of cultures, to form polymeric literacy of students.

In this regard, the universities are responsible for the quality provision of students with the required language knowledge and skills. Therefore, the educational institution should systematically create conditions for improving the qualifications of its teaching staff to provide the institution with an appropriate material and technical base.

### 2 Literature Review

High-quality language training for students is only possible with modern educational technologies. Modern technologies in education are professionally-oriented teaching of a foreign language, employment in teaching, the use of information and telecommunication technologies, work with educational computer programs in foreign languages (multimedia system), distance technologies in teaching foreign languages, creation, use of Internet resources, learning a foreign language in a computer environment (forums, blogs, e-mail), the latest test technologies (design of a bank of diagnostic materials for the course of the subject "Foreign Language" for computer testing in order to control the knowledge, skills, and abilities of students) [33]. At this stage of methodological science development, communicative and constructivist methods are the primary techniques.

A considerable number of articles published today are devoted to the problem of teaching a foreign language [1, 3, 5, 29]. It is known that the primary goal of teaching a foreign language at the present stage is the development of the communicative abilities of the individual, and speaking, as the most popular form of communication, requires special attention [4]. A specialist with higher education must be able to speak a foreign language because the state educational standard of higher professional education defines the language skills that a university graduate should master – namely, knowledge of one of the foreign languages at a level that ensures effective professional activity.

On the one hand, specialists who speak at least one foreign language at a reasonable level are in demand in the labor market [11]. But on the other hand, the education system also supplies university graduates with a low level of knowledge, translating with the help of a dictionary.

To define the scope of the designated problem, let us start with the methodological foundations. Modern didactics involves various teaching methods in preparing students of humanitarian specialties in the discipline of "Foreign Language." The term "form of organization of learning" refers to a specific type of this lesson. The complete forms of organization of educational activities of students are presented in the works of domestic and foreign researchers [23]. The authors agree that it is in organizational structures that interaction between teaching and learning takes place [2, 17, 24].

The features of interactive forms of learning include a single semantic space, the active inclusion of the student in this space (immersion in the language environment), the unity of means and methods for implementing the solution of tasks, entering into such an emotional state that allows getting closer to real situations of verbal communication [14].

All this is achieved through such forms of interactive learning as role-playing and business games, discussions, brainstorming, case analysis, solving situational problems, presentations,

conferences, and debates, i.e., forms of work that develop and actively use speaking skills to a greater extent.

### 3 Materials and Methods

The *fundamental method* of teaching a foreign language is the oldest and most traditional method. It is also called classical. It is seriously relied upon in language universities. Studying according to the classical approach, students learn to look at the world through the eyes of a native speaker [6]. The classical course is aimed at students of different ages and often involves learning the language from scratch.

In the *classical method*, all language components (oral and written speech, listening, etc.) must be developed by students systematically and harmoniously. This integrated approach aims to develop students' ability to understand and create discourse. A teacher who is not a native speaker can analyze and compare two language systems, compare constructions, communicate information better, explain grammatical rules, and prevent possible errors. The Western world has appreciated the priority of bilingualism (knowledge of two languages) [19]. The most significant value in the modern world is represented by teachers who can think in the context of two cultures and convey to students the appropriate set of knowledge.

The *linguistic socio-cultural method* is one of the most severe methods of learning a foreign language, involving an appeal to such a component as the social and cultural environment. Proponents of this method are sure that the language loses its life when teachers and students aim to master only lexico-grammar forms. Previously, they monitored the correctness of speech. Now, in addition to this, they seek to increase its content. The meaning of the transmitted information is essential, that is, the communicative level, because, in any case, the ultimate goal of communication is to be understood. In the West, language is understood as a system of communication consisting of specific fragments and a set of rules used for communication [13]. The linguistic socio-cultural method combines linguistic structures with extralinguistic factors. The purpose of learning a language using this method is to facilitate understanding of the interlocutor and the formation of perception on an intuitive level.

The *communicative method* is aimed precisely at the possibility of communication. At the same time, increased attention is paid to speaking and listening comprehension [15].

The *simulation method* can be successfully applied in teaching a foreign language to students of humanitarian specialties of universities. In cybernetics, this term is used to model and simulate reality. In training, we are talking about various simulation business games that allow students to develop their skills and apply knowledge to solve a particular problem in the so-called "safe environment," which simulates real situations, for example, in business or work in a company. The simulation provides an opportunity for students to try themselves in a specific role (manager, president of the company) and to explore this enterprise's system of work. The participants in the game are given specific tasks – to increase the company's profit, conclude an agreement, profitably sell the company's shares, and the like. Simulations are characterized by a high degree of interest in the participants. They are completely immersed in the game, embodied in their role, and root for the result of the work since the overall result of the game depends on the team spirit and the speed of decision-making. Thanks to the simulation, students' strategic planning skills are formed, and the ability to work in a team, negotiate and convince a business partner develops. Simulations streamline students' knowledge and prepare them to make quick and motivated business decisions in future activities. There are computer simulations, where participants work with a computer program and manage an imaginary company, and desktop simulations, where participants, companies, and enterprises "exist" in the form of chips and cards.

The *role-playing game* is an active teaching method that develops the student's communication skills. The role-playing

game is connected with students' interests and is a means of emotional attraction and motivation for educational activities. Role-playing is an active way of teaching practical knowledge of a foreign language. The role-playing game helps to overcome students' language barriers and significantly increases the volume of their speech practice [22].

The *discussion method* teaches students to conduct an unprepared dispute or verbal competition in a foreign language. The discussion's main feature is students' interpersonal interaction and communication with the teacher [29]. The peculiarities of this teaching method include the fact that the dialog allows you to identify various points of view on a particular issue, compare them in direct communication, and, if possible, analyze each of them if the situation requires it. A prerequisite for the discussion is the presence of any controversial issue, the final solution developed during the debate. For its successful conduct, participants must know the subject of discussion, have their own opinion on this issue and master the techniques of influencing partners and managing the conversation. The basis of the compositional development of the debate is evaluation and argumentation.

The merits of the discussion include the following:

- The spontaneity of the statement;
- The ease of the atmosphere;
- The enrichment of information.

The above positions indicate that conducting a discussion in a foreign language requires a high level of development of communication skills. Therefore, the discussion can be used as a final control and at the end of work on a topic or some issues. The following topics can serve as examples of organizing discussions in a humanitarian university: "Advantages and disadvantages of distance learning," "Formation of the language culture of a future specialist," "Advantages and disadvantages of various forms of teaching a foreign language," "Social responsibility of higher educational institutions," etc.

Practice shows that cross-discussion finds an enthusiastic response from students [7]. During the organization of the first such discussion, the teacher explains to the group its principles, and then the students themselves actively use this methodological technique during an unprepared dispute. Previously, all students are divided into several groups. The essence of the cross-discussion is the precise implementation of the rules that the group takes for granted.

One student from the group can participate in the discussion only once. After that, all students in the group are involved in a conversation or argument. Even poorly prepared students work more actively if they feel the group's support. They see a common goal – to convince rivals, to prove their case. In fulfilling this condition, the teacher lays the foundations for team building, which will be in demand in the other professional practice of students.

As part of the discussion, methodologists and practitioners advise actively using six types of questions:

- Verification of knowledge of the material (clarification of the information received);
- Understanding (in the form of retelling);
- Application of the received information (simulation of similar situations, for example, "What would happen if...?");
- Analysis (connection of previous events with subsequent ones);
- Synthesis (creating your material (articles, poems, non-verbal communication) based on the studied material);
- Assessment (search for a solution based on the problem posed, comparison of characters and their actions) [16].

The following non-traditional way of developing students' speaking skills in a foreign language is *brainstorming*, which should have a clear goal, including the stages of the silent



generation of ideas, their random enumeration, clarification of ideas, voting, and ranking ideas to achieve the goal. Types of brain attacks:

- Direct, reverse (begins with criticism of ideas);
- Double (the number of participants exceeds the optimal number by several times with a corresponding increase in the duration of the event);
- Ideas conference (usually for 4-12 people for several days);
- Individual brainstorming (the student is both a generator of ideas and a critic) [17].

Examples of brainstorming are topics of a problematic nature that may need a more straightforward solution: such as global issues as steps to improve the state of the economy in the country, for example. At the end of the brainstorming, depending on the nature of the task of finding the optimal solution/idea, students can be offered to use the principle of a reflective position, namely: to determine whose idea was the most unexpected, philosophical, divorced from reality, academic, most practical and easy to implement, profitable, etc. Reflection is also beneficial when the teacher asks students at the end of the brainstorming session to continue the phrase "I believe that today took place... because..." or "I believe that I achieved/did not achieve my goal, because..."

The types of training that are in demand among students include the "round table," which is an exchange of views on any issue or problem that interests the participants in communication. Participating in the "round table," the student expresses only his point of view. The problems discussed at the "round table" can be very diverse: regional studies, moral and ethical, social, cultural and value, economic, etc. Participation in the "round table" requires the communicants to have a sufficiently high level of language proficiency and the availability of specific knowledge on the problem being discussed [8]. Therefore, as a method of controlling a "round table," it is advisable to use it at an advanced stage of learning and the end of work on a particular topic or several related topics. "Round table" can be used to study various issues, where students share their knowledge already gained in their future professional practice. This work helps integrate the educational process and strengthens interdisciplinary connections.

The methodology for including students in active foreign language activities involves such a form of training as preparing a report and participating in a conference. The conference is a way to improve the skills of monologue statements of students who have not had such an experience [18]. The value of participation in the annual intra-university and inter-university conferences lies in the integration of classroom and extracurricular work. The scientific focus of the conference topics is an incentive to master professional terminology, practice correct pronunciation, clearly express thoughts, be understood by other participants and members of the commission (jury), and overcome stiffness. For each student of the group, participation in the conference can be direct (speech with a report, presentation) or indirect (participation in debates, analysis of the heard material). The preparatory stage consists of the fact that with each speaker who wants to speak at the conference, a detailed presentation plan is individually drawn up, and literature with sources of information is selected. Then, the manner of presenting the material is worked out. Students immediately prepare all parts of the report in a foreign language or translate from other language independently. The teacher's role is to edit the work and recommend correcting deficiencies. Such extracurricular language activity not only expands the boundaries of knowledge in the subject being studied but also activates the student's independent work on analyzing, synthesizing, and evaluating information.

#### 4 Results

Modern pedagogical science is in search of ways to modernize professional education [22]. At the same time, great importance is given to taking into account the world experience of

development in this direction since solving the problem of improving the quality in the field of vocational education requires ensuring the exchange of knowledge, the effect of meta-knowledge, the creation of interactive networks, the mobility of teachers and students, and international research projects.

Appeal to the problem of studying the experience of modernization of vocational education in the international arena resulted from the entry of the domestic professional school into the global educational space and the international market of educational services. Furthermore, the modernization of education determines the choice of modern technologies for teaching foreign languages. This is due to the increasing importance of a foreign language for the professional growth of a specialist.

Modernization of education allows you to turn to the student's personality, building a system of continuous education. For example, the UK and Germany, the most technically advanced countries, have extensive experience teaching foreign languages through the organization of search activities, portfolio technology, and block-modular education. The solution to this problem involves not directly borrowing foreign experience but a thorough study of it to adapt progressive ideas to the specifics of education.

The search for new technologies for teaching foreign languages is due to several circumstances:

1. The methods of teaching a foreign language in domestic universities, according to the traditional system, currently need to meet modern requirements for language proficiency.
2. Teaching a foreign language is mainly focused on developing students' memory and the ability to translate a foreign text in their specialty competently. In contrast, modern pedagogy focuses on the development of thinking and the activation of cognitive activity.
3. The expansion of the country's economic, political and cultural ties with foreign countries has revealed the need to improve the quality of teaching foreign languages in higher education, which should be aimed at developing students' knowledge necessary for communication and work in their specialty abroad [25].

In the field of higher professional education in highly developed countries, the following innovative trends can be distinguished:

- Development of the system of higher professional education according to the scheme "education – science – production";
- Use of a multi-stage learning structure;
- Development of continuous education;
- Improving the forms of postgraduate education;
- Intensification of the educational process by directing it towards the independent work of students.

The modern scientific and technological revolution has transformed the priorities in teaching students, putting forward education, creativity, and the ability to learn independently [9]. But these priorities conflicted with the existing pedagogical system that took shape in the industrial era of the 20th century and focused mainly on memorization, reproduction, and performance. It led to a decrease in the quality of general educational fundamental training of specialists in some leading countries.

Therefore, among the main tasks of higher education in a rapidly changing social environment, the main areas can be distinguished:

- Compliance with the requirements of modernity – the role of higher education in society, its functions, programs, content, and methods of its provision;
- Quality is a multifaceted concept covering all types of activities concerning higher education;

- Internationalization and universalization of higher education content using modern communication systems.

The principal modern pedagogical concepts of teaching a foreign language in a foreign school include:

- Grammar-translation method (deductive): reading literature in the original, translation, emphasis on vocabulary and grammar;
- Direct method: no translation, visual principle, speaking, inductive grammar;
- Audio-lingual method: mechanical use of language, listening;
- Silent teaching method: cognitive approach, use of language for self-expression, language structure, diagrams, silence;
- Suggestopedia: suggestion skill, role-playing games, dialogues, vocabulary, little grammar, translation is acceptable;
- Whole-community method: cognitive environment, teacher-therapist, the atmosphere of openness, small groups;
- Method of total physical return: listening skill, oral anticipation, visualization, the way of learning the native language;
- Communicative approach: motivation, individualization, communicative orientation, functionality, accessibility, activity, visibility.

The most progressive of them was the American communicative theory, which is the basis of the communicative approach to teaching a foreign language abroad [19].

The effectiveness of globalization in modern society would only be so high because of the significant role of language [27], which is a means of communication. We are talking about a foreign language since the general part of the information on the Internet, and all international types of documents, are presented in a foreign (mainly English) language. Furthermore, there is the experience of bilingual education, which is determined by the ability to speak two languages when switching from one language to another, depending on the communication situation. The so-called coordinative type of bilingualism is ideal when the student freely moves from one semantic base to another. That is, the future specialist speaks two languages fluently. An active research search is underway in bilingual education, and the experience of foreign countries is being studied. But the most valuable for us is the example of Germany, which combines the presence of a natural foreign-language environment associated with many emigrants and global integration into the general cultural and business space. Bilingual education has a great future and has some advantages. This type of education is suitable not only for the humanitarian sphere.

Previously, priorities were given to grammar, vocabulary acquisition, reading, and literary translation [26]. Tasks included reading and translating the text, memorizing new words, retelling, and reading, writing, or dictation exercises. Only one function of the language was realized – informative. What is revolutionary is that the language has become accessible to most people. As a result, language learning has become more functional. Specialists in various fields of human activity require English to communicate with people from other countries.

## 5 Discussion

In training specialists in any humanitarian field, it is imperative to optimize the process of transferring knowledge from teacher to student [31]. Also, it is vital to develop computer technologies that intensify future specialists' professionally oriented foreign language education or to use ready-made materials offered in significant quantities by large publishing houses [20]. The value of methodological developments using computer technologies lies in the fact that they can include tasks that meet the requirements of a specific university program in the Foreign Language discipline and many translation exercises that are not found in textbooks published in native countries. You can also

prepare guidelines for conducting role-playing and business games. These programs exist on the Internet. They can be easily installed on students' home computers, placed on educational resources of universities, and used in media libraries. In addition to translation exercises, the value of these methodological developments lies in the fact that many tasks do not have a freely constructed answer and are automatically checked by the program, demonstrating gaps in knowledge. Thus, students see their omissions, gaps in learning, and weaknesses, can quickly return to previously studied topics using the navigation system, refine the missed or unlearned material and complete the task again, but with great success. If necessary, the procedure is repeated.

Immersion of students in the integrity and value of cultural interaction in foreign language communication is only possible with a reflective position. Therefore, in the guidelines, there is an "evaluation sheet" which determines the level of the material learned. This list includes determination of readiness for the lesson, personal contribution to the discussion, role-playing game, case analysis, debate, effectiveness of participation, the intensity of statements, success in the process of using speech technologies (clarity of presentation, persuasiveness, expression of agreement-disagreement), flexibility of thinking, tolerance in the process of communication, the level of satisfaction from work done.

The axiology of foreign language interaction is reflected in the guidelines for conducting a case study [32]. The topics under consideration relate to differences in approaches to eliminating misunderstandings in intercultural communication and the development of valuable meanings of communication. At the end of each chapter, the student is offered a questionnaire to fill out to develop reflection skills. At the end of the course, the block "Repetition of the material covered" and materials for enhancing oral speech skills are presented. The didactic value lies in the fact that in the process of work, students develop the foundations of communicative competence, which involves the development of the following skills:

- Public speech (presentation);
- Monologue, dialogic and polylogical oral communication in situations typical of business communication;
- Interpersonal communication from the standpoint of respect for another person as an equal person and his culture;
- A unique manifestation of the baggage of knowledge and traditions accumulated by the ethnic group.

The various tasks included in the manuals develop students' communication skills. Each section ends with a case study that requires a written solution.

As part of the intensification and practicality of using study time, we consider it necessary to use computer testing. Tests may include tasks designed to test three types of speech activity: reading, writing, and listening. To carry out the current control of students' knowledge, the teacher can make any necessary number of tests from the proposed bank of test tasks. The materials prepared by the group of authors of this collection can be used both as control and measuring materials and for final testing.

At the same time, the undoubted advantage of this collection is that the tasks are differentiated in complexity. With each teacher using this type of testing, students' language skills and abilities can independently choose the material that meets the level of preparation of a group or individual student. In addition, the materials proposed in these tests can be discussed orally in a group after completing all other types of tasks. Both the teacher and the students themselves can prepare problematic questions for them. This will again allow the group to "speak" the linguistic material, discuss the information received, and develop oral speech skills based on interactive learning.

Tests help to quickly check the quality of mastering the material [21]. Still, the teacher needs to see the integrity of the picture of

the educational process, namely: to master the technologies that help comprehensively assess students' foreign language knowledge, skills, and abilities. For these purposes, the method of peer review can be used, which helps to determine (with a small error) the quality of assimilation of the content of theoretical and practical knowledge of students. With the help of this method, students' creative works are checked, the implementation of which involves an independent or in-depth study of a topic or its separate direction. The reliability of expert assessments is achieved due to the consistency of expert opinions. If any two experts (who are both teachers and students of the group) equally evaluate the same work or student's answer, their views are considered to be consistent. Furthermore, since creative works consist of two parts (theoretical and practical), they are evaluated by the sum of points for each part.

## 6 Conclusion

One can rely on the methods used in the study to assess the results of the formation of foreign language skills and abilities. Theoretical knowledge will help evaluate the completeness and strength of knowledge and the coefficient of the fullness of assimilation of the content of academic knowledge. The assessment of the criterion correlates with the overall evaluation of the student's foreign language training in identifying specific areas:

- Knowledge of professional concepts in a foreign language;
- The ability to conduct a dialogue;
- Vocabulary range;
- The accuracy of the use of language units;
- Fluency;
- The degree of interaction with the interlocutor;
- Connectivity of speech.

The use of the above criteria in the process of assessing the knowledge, skills, and abilities of students helps the teacher evaluate the results of his work in the context of improving the quality of teaching in higher education institutions, as well as more accurately determine the level of foreign language proficiency of students. This will help to avoid errors and subjectivity in the assessment. In addition, these methods will help in selecting relevant educational material and preparing a program for a discipline, an elective course, or an elective.

As a result of the objectified approach, one can expect an increase in the degree of student's motivation to learn a foreign language in the aspect of professionally oriented tasks. It is well known that a test that includes all types of speech activity helps to determine not only the level of a student's preparation but also the level of organization of the educational process. It shows how skillfully the curriculum is built, whether the material presented is practical and adequate, whether the teacher's professional training is high enough, and how students develop the ability to combine group work with individual work.

It is important to note that as a result of using improved techniques and methods in combination with measuring tools of knowledge, skills, and abilities of students (test systems, peer review method), it is possible to:

- Successfully solve the problems of training a modern competitive specialist;
- Develop in students the experience of cooperation and cooperation, the ability to work in a team;
- Activate students' initiative and motivation for learning activities;
- Form critical thinking and social behavior skills;
- Activate the desire of students to master general cultural competencies (knowledge of the fundamental values of world culture, readiness to rely on these values in personal and general cultural development, knowledge of a foreign language at a level that ensures professional activity).

The proposed techniques will help create an English-speaking environment where humanities students should function to achieve high results.

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**Primary Paper Section: A**

**Secondary Paper Section: AI, AM**

## IMPACT OF GLOBALIZATION PROCESSES ON CHANGES IN TECHNOLOGICAL DEVELOPMENT IN CONDITIONS OF ECONOMIC DIGITALIZATION

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**Abstract:** The article aims to determine the impact of globalization processes on technological development to identify further areas of socio-economic development in Ukraine. The method of comparison, systematization, analysis, synthesis, graphical analysis, classification and theoretical substantiation were used in the study. The author states that new relations are being formed between the subjects of economic considerations, including the "New Economy" in the world. Changes in technologies under the influence of globalization challenges are considered. The role of digitalization of public life as a component of the further development of society is determined. The main directions of technological development in the world are systematized. The curve of technological and evolutionary development is constructed on the basis of the S-curve of technological development and the envelope. World trends in technological development are developing according to the model of uneven development of technologies and the envelope curve based on new principles of action. Thus, the technologies of the last five years demonstrate an unmistakable reorientation towards the concept of the super-intelligent "Society 5.0," which allows accumulating information from the physical space and, based on processing by artificial intelligence, returns it to the same physical area with the latest solutions.

**Keywords:** Digitalization, Innovative technologies, Socio-economic development, Techno-globalism, Technological development.

### 1 Introduction

Current conditions of globalization dictate their requirements, under which the elements of a new economy are formed based on information technology and the accumulation of a knowledge base. Indeed, new relationships arise between the subjects of economic relations that form the "New Economy" in the world. Restructuring in the methods of doing business, the social life of humanity, ways to meet consumer needs, the relationship of market participants, and the nature of structural and globalization changes are clearly defined.

Modern conditions of economic management under the influence of globalization change form a new technological development paradigm in the world. This paradigm is based on the postulates of Industry 4.0: The Internet of Things, Big Data processing, the use of artificial intelligence, digitalization and robotization, etc. These changes form a new management system characterized by non-linearity and rapid achievement of results [14].

A fundamentally new management system is being formed, which has a characteristic feature – non-linearity and demonstrates a rapid increase in achieving a particular result [27]. The leading global economic forums (World Economic Forum, discussion platforms of the "Group of 20", the Organization for Economic Cooperation and Development) [24] believe that Ukraine is characterized by structural inadequacy of the economy following the Fourth Industrial Revolution.

The purpose of this work is to determine the impact of globalization processes on technological development to identify further areas of the socio-economic development of Ukraine. This goal made it possible to form the following tasks:

- Consider the curves of technology development in the world;
- Follow how the technologies change under the influence of globalization challenges;
- Determine the role of digitalization of public life as a component of the further development of society;
- Systematize the main directions of technological development in the world;
- Build the curve of technological evolutionary development based on the S-curve of technology development and the envelope curve.

Digitalization and globalization of the world economy significantly impact economic cycles, reducing their length, increasing the amplitude of local cycles, and reducing the amplitude of the global revolution. New mechanisms and factors affecting the speed, amplitude, and length of economic cycles, among which advanced digital technologies play a leading role, ensure innovative economic growth [31].

### 2 Literature Review

Information technology innovations and inventions have made it possible to (a) significantly increase the power of computer technology; (b) increase the speed of information processing and data transmission; (c) reduce the unit cost of their processing, which has led to the active and efficient use of digital information [3].

Let us consider the evolution of scientific approaches to the study of cyclical processes in the economy to identify the cycle-forming factors of the modern economic system. The idea of cycles in the economy was born similarly to this idea in any systematized structure. The first theories of cycles in economic systems associated their presence with external, most often natural, factors. One of the most famous theories of vernal factors was that of Jevons, an English economist who linked the business and solar activity cycles. He considered the cycle duration stable (eleven years) and considered the existence of a relationship through the influence of solar cycles on agriculture [25].

The theory of external factors was most popular at the dawn of the development of the idea of economic cycles [11]; however, the industrial revolution that began led to the development of theories of classical political economy. The most studied are cyclical processes associated with overproduction [7]. The underlying cause of economic cycles at this stage was considered to be the market mechanism itself. Numerous theories have emerged that interpret in their way how cyclic processes of overproduction spread. They can be divided into groups: investment and industrial.

Over time, economists begin to understand that the balance of market and planned systems, which sincerely contain oppositely directed cycles, gives the potential to smooth out the amplitude of cyclical fluctuations that are inevitable for any economic system [11]. However, they are faced with a new challenge – the start of the rapid development of technology and the emerging digital transformation of the financial system as a whole.

As a result, theories are beginning to develop that focus on the technological factor of cyclicity. Some of the most striking are the concept of an actual business cycle and technological structures. The first explains fluctuations in business activity as supply-side shocks, with technological shocks impacting generating cycles more than other parameters. The second argues that the phases of the economic cycle are due to a change in technological structures. However, both have weak predictive properties since they can have random shocks at the output [28].



There has yet to be a consensus in the economic community about what factors and how they influence the length and amplitude of the current global and local economic cycles. However, this topic is of increasing interest, especially in light of the increasingly frequent "financial infections" and cases of synchronization of economic processes at the global and regional levels [4]. Furthermore, the increasing integration of economies into each other leads to such consequences, which are facilitated by the development of technologies and the growing digitalization of the economy and society as a whole – the growth of international commodities and financial turnover around the world.

At present, information is becoming the leading factor of production, and various socioeconomic phenomena, including the cyclical nature of the economy, have an informative character and general information content. In the context of the transition to a digital economy, the scale of digital flows is increasing, the volume of transmitted information is growing, and there is a transfer of information technologies through global networks, affecting most countries of the world [13]. As a result, trade and finance flows have declined markedly, losing their pre-crisis growth momentum. Yet, international trade is projected to increase more than five-fold in the coming decade, driven by digital trade flows, the transfer of information, and an increase in traffic associated with the activities of multinational corporations [23]. The issues of globalization, technological development, and innovation orientation of Ukraine were dealt with by such outstanding domestic scientists Cherniavska, Bila, Kozachenko, Rumiantsev, Akhnovska, Bratslavets, Shkola, Malyshko, Oliinych, Dubei, Reshetilo, Antonyuk, Halchynskii, and Kozak.

The cost of international interactions and transactions is noticeably reduced due to new technologies. In today's world, thanks to international technological tools, even small companies can claim a share of the global market. Facebook, Google, and other high-tech companies have created universal tools for interacting with customers worldwide. According to McKinsey, more than 85% of the tech companies surveyed have some international activity and expect a global presence. In addition, people directly participate in globalization daily, using digital platforms for domestic needs, communication and work. More than 3 billion people use social networks, about 900 million people have international connections in social networks, and 360 million participate in cross-border e-commerce [18].

According to the World Bank, international information, goods, and finance flows have increased world GDP by at least 10% over the past ten years. And although more and more countries are participating in international economic relations, global flows remain concentrated among a small number of leading countries [21]. The gaps between the leaders and the rest of the world are narrowing very slowly, but catch-up growth presents an ample opportunity for countries lagging. Nevertheless, new centers regularly appear where world economic flows are concentrated in one area or another, transforming economic activity.

### 3 Materials and Methods

The socioeconomic development of countries is directly related to technology development. The latter have their development curve (S-curve of technology development or S-curve of the process of innovative development) (see Figure 1, Figure 2). This curve demonstrates the state and development of the "New Economy" at different stages:

- Gradual increase in the signs of the "New" at the early stage;
- Compliance with growth rates with a specific threshold value;
- A significant drop in rates under the influence of the spread of the "New Economy" (process, phenomenon, technology, system).

Periods during which technological changes occur (technical gaps) form the basis of leadership or lagging. Figures 1 and 2

demonstrate the functional approach that allows determining the system itself (the mode and approach) and the definition of the functions performed by this system.

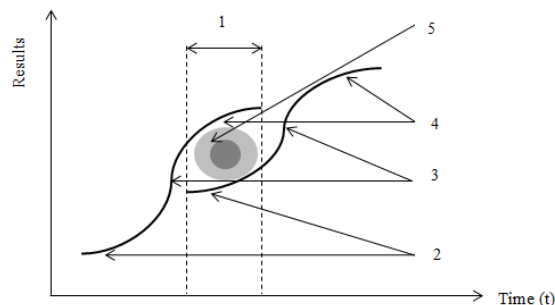


Figure 1 – Model of uneven (S-shaped) technologies development (systems)\*

Transition to the new operating principle, where:

- 1 – technological gaps;
- 2 – embryonic technologies (genesis);
- 3 – key (advanced) technologies;
- 4 – classical technologies;
- 5 – technology competition zone.

\*Compiled by the authors based on the *Algorithm for Solving Inventive Problems* [22].

Getting economic benefits from existing technology may be prioritized over introducing the latest technology, which will lead to a loss in the market. Innovative technologies are designed for long-term success; constant restructuring allows a balance between continuity and change.

Embryonic technologies (2) are not leading to growth and efficiency. Key technologies (3), on the contrary, demonstrate sharp growth; the result is rapidly increasing momentum. Negligible returns characterize classical technologies. After that, situation (1) arises – the period of technological gap, resulting in a transition to a new principle of action – fundamentally new technologies. The end of the previous S-curve collides with the beginning of the new S-curve, and there is fierce competition between existing (old and new) technologies.

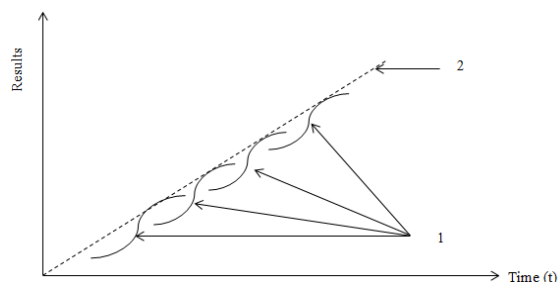


Figure 2 – The envelope curve\*

Where:

- 1 – S-shaped curves;
- 2 – envelope curve.

\*Compiled by the authors based on the *Algorithm for Solving Inventive Problems* [22].

The envelope curve demonstrates the change in technology, technological patterns, and concepts of the development of society (for example, the evolution of car engines). Consequently, the country's structural shifts process consists of innovative changes, which are the main factor in these shifts and the strategic guideline for changes.

### 4 Results

As a result, we can come to the following assumptions:

- Limited or lack of resources contributes to the more active development of technologies;
- Planning and implementation of technology takes place using new knowledge with a small number of resources;
- The use of the Law of natural growth in combination with the development of technologies along the S-curve makes it possible to form long-term forecasts of the country's socioeconomic development;
- Many of the latest technologies hold significant transformative potential for international trade.

The Law of natural growth stimulates the reproduction processes of new knowledge and its dissemination, changes in the system and business processes, and increased competitiveness. The Law makes it possible to predict the scale and complexity of systems and knowledge acquisition due to its fractal aspects [26].

Having carried out this study, we consider it necessary to trace how technologies change under the influence of globalization challenges within the framework of the Fourth Industrial Revolution (Table 1).

Table1: The most important innovative technologies of the World according to the World Economic Forum in the context of 2016-2021

No	Advanced technologies 2016		Advanced technologies 2021	
	Technologies	Technology specification	Technologies	Technology specification
1.	Nanosensors and the Internet of Things	Connecting many devices to the Internet, transferring medicine, energy efficiency mechanisms, and other sectors to a new, high-quality level.	Decarbonization	Consists of the latest carbon reduction technologies, including emission-free air conditioning, renewable energy sources, and meat-free protein production. Use of hydrogen fuel cells.
2.	Energy sources (accumulators, batteries)	Non-traditional types of energy (solar, wind, sea waves, etc.). Batteries made without harmful substances and metals will support the lives of villages, cities, and enterprises.	Self-fertilizing crops	Thanks to the latest engineering approaches, crops produce their fertilizers, which allows for creating a symbiosis between roots and soil bacteria.
3.	Block chain	Conducting transactions and creating a ledger using cryptographic methods.	Respiratory sensors for disease diagnosis	The latest equipment recognizes the connection when the patient breathes and determines the disease of prejudice.
4.	2D materials	They consist of one layer of atoms - grapheme, germaneness, furrows, which gives the uniqueness of the materials (flexibility, lightness, strength, and optics).	Production of drugs (drugs) on demand	Pharmacology technologies allow you to determine the composition and dosage of a particular drug for a specific person.
5.	Autonomous hybrid cars (without driver)	Equipped with autopilot, navigation, cameras, radars, and devices for receiving information from the outside based on cyber-physical systems.	Power transmission by wireless signals	Charging low-power devices (intelligent times, pacemaker, hemodialysis) via Wi-Fi signals or other wireless networks.
6.	Elements functioning on electronic chips	Nanoelectronic carriers are attached to the corresponding element, which transmits information about the "behavior" of the organ under the influence of faces, the environment, and physiological processes.	Aging engineering	Identifying the mechanisms of aging, preventing morbidity and summer troubles, and ensuring healthy human aging.
7.	Perovskite components for solar energy	Reduce the cost of solar energy production (the panels' size and weight are reduced, respectively), making it more environmentally friendly.	Green ammonia	Production of ammonia fertilizers from more purified hydrogen sources.
8.	Open ecosystems	Transition to "contextual" intelligence. Simplifies the management of a person's affairs through special software (financial transactions, online medicine).	Wireless biomarker devices	Portable, wireless, wearable devices track human biological markers (blood tests) to prevent disease.
9.	Ontogenetic	New methods of treating nervous and mental diseases by directing light to identify altered neurons.	Houses from improvised (local) materials	Construction of houses using 3D printers from local materials (clay, green palm branches, algae).
10.	System metabolic engineering	Reproduction of microorganisms to change the traditional raw materials for chemical production and pharmacology. It will allow these microorganisms to replace natural plants or animal organs to produce medicines.	Space Internet of Things	Distribution of devices for connecting to the Internet through the use of light Nanosatellites orbiting the globe.

\*Compiled by the author based on the World Economic Forum's Meta-Council on Emerging Technologies and Top 10 Emerging Technologies of 2021 [15, 17].

This Table clearly shows the change in society's development values. In recent years, innovations have clearly defined ways of solving social problems, including improving the planet's climate. This identifies the development of the concept of Society 5.0.

The concept super-intellectual concept of "Society 5.0" is designed based on the idea of the information society "Industry 4.0" to solve such global problems of humankind as reducing the working-age population and prolonging its healthy life (healthy aging), medical and biotechnologies, maintaining the planet's climate (global warming) problems (reduction of emissions, hydrogen, etc.), natural and artificial disasters, alternative energy sources, lack of natural resources and food, comprehensive communications (information and communication support in any corner of the earth). Therefore, the philosophy of the "Society 5.0" concept is the use of Internet of Things technologies, which

allows accumulating information arrays in the physical space – extensive data that are processed by artificial intelligence, and new decisions are made by sending them to the exact physical measurement [16].

Of course, public life digitalization is an integral part of society's further development. Polanyi believes that digital transformation dictates the need to find methods to adapt to new challenges and situations [20]. We agree with this statement and think that this transformation is possible due to the emergence of a new digital generation of workers [14], who, thanks to their competencies, will be able to interact virtually in cyberspace as soon as possible.

Let us carry out a comparative description of the achievements of the Fourth Industrial Revolution; the Concept of Society 4.0 and the Concept of Society 5.0 (see Table 2).

Table 2: Comparative characteristics of the achievements of the Fourth Industrial Revolution, the Concept of Society 4.0 and the Concept of Society 5.0 (author's development)

4 Industrial Revolution	The concept of Society 4.0	The concept of Society 5.0
Intelligent sensors	Population reduction. Decreased industry competitiveness.	Intellectual society. Population reduction.
Internet of Things, Cloud Services, Mobile Devices	Individual optimization through the use of information and communication technologies.	General society optimization with the help of cyber-physical space.
Production automation. Management of all processes and sub-processes in real time under the influence of external factors	The world is associated with restrictions (temporal, spatial).	World free from any restrictions.

Complex information systems	Rapid aging society. Need for more participation of women in social development.	Society in whose development all segments of the population and all age groups take an active part.
Digital ecosystems	Natural and artificial disasters. Outdated infrastructure. Environmental problems. Efficient use of natural resources and water.	Society security in cyber-physical space. The society maintains an optimal balance between economic development and the state of the environment. Use of new resources (data).
Robotization	Finding solutions to individual problems. Improving the efficiency of particular industries and sectors of the economy.	Solving complex social problems. Ensuring the standard of living people and their well-being.
Big data analytics	Uneven regional development. Population concentration in big cities.	Society in which there is a high quality of life, regardless of location in the territory.

Table 2 demonstrates the main directions of the world's technological development. It allows for forming development priorities based on the current trends and implementation measures of socioeconomic development in the context of global challenges.

According to Table 2 and the studies carried out, construct a technological evolutionary development curve based on the S-curve of technology development and the envelope curve (Figure 3).

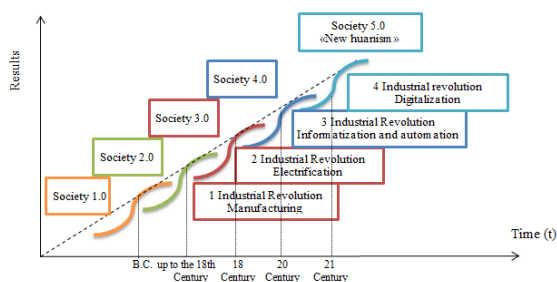


Figure 3 – Curve of technological and evolutionary development based on the S-curve of technological development and the envelope curve\*

\*Compiled by the authors based on Figure 1 and Figure 2.

According to this Figure 3, there are clearly defined stages of social development as follows:

- Stage 1 – Society 1.0 (characterized by the production of agricultural and agricultural products as a result of human activities);
- Stage 2 – Society 2.0 (farming and agricultural products become the exchange subject);
- Stage 3 – Society 3.0 (industrial production is developing, motors and devices are appearing, and production is being electrified);
- Stage 4 – Society 4.0 (informatization of society, computerization, new technologies, innovations, Industry 4.0);
- Stage 5 – Society 5.0 (characterized by expanding the concept of "Industry 4.0" to "Industry X.0", cyberspace, solving immediate social programs, sustainable economic development, digitalization, reproduction of the relevant infrastructure in virtual reality).

## 5 Discussion

An important factor in international competitiveness and a guarantee of the future success of the economy of any state and its regions is technological development, which is at the transition stage from the fifth technical order to the sixth. The changing world is turning into "the world of subtle technologies that begin to control the world of machines" [12, p. 2]. The economy, under the influence of the above changes, has the features indicated below [2, p. 15–19].

Globalization is characterized by the fact that the components of the economy: capital, production, management, markets, labor, information, and technology are organized in such a way that there is closer cooperation between countries and regions at a great distance, intellectual formations and innovation clusters arise.

The knowledge economy is an economy that is a catalyst for innovation and the development of science and technology. It is based on knowledge concentrated in human capital. The progress of knowledge erodes the integrity of the property. Also, it undermines the conditions for the functioning of the free market [8, p. 37].

Intellectual capital is intangible assets that form the knowledge and competencies of personnel to create tangible and intangible assets in intellectual work, making it possible to develop competitive advantages [19].

Digital transformation is changing all areas of society by revising digital strategies, models, operations, marketing approaches, tasks, and goals by introducing digital technologies to accelerate and increase results [29].

Handling intangible benefits, information, and relationships creates opportunities for their use, subject to the involvement of highly qualified personnel.

The interaction of individual segments of the new economy is forming digital platforms to unite the interests of all participants in the market system.

Such a change leads to transformations in such areas as:

- Dominant technological solutions;
- The new organizational practice of entrepreneurship.

There is a change in the relative structure of costs under the influence of new technology of a particular factor of production, which becomes relatively cheap and is not exhausted in the foreseeable future. It can increase profits by reducing the cost of capital and labor. Consequently, an appropriate organizational business practice is formed. The widespread use of innovative technologies creates new market conditions and principles of organization of activities corresponding to them, surpassing the previous ones and becoming part of the new efficiency theory. The essence of this theory is that the supply curve has a negative slope. Marginal costs tend to zero at significant intervals, and the demand curve has a positive slope. Marginal utility increases as the number of participants in the consumption of goods grow [6]:

- Management of economic activity;
- Social institutions;
- People's behavior.

The above has caused the emergence of such a phenomenon of the global economy as techno-globalism. A process of globalization that extends to the sphere of innovative technologies and research and development work. It reflects the cyclical nature of the configurations of technological modes both in the territorial and temporal dimensions. It is understood that new products and technical systems developed by the world's leading countries fall on the periphery of the world economy and can be used in economically backward countries. Techno-globalism has acquired the features of a system and has become an imperative of the economic policy of all the world's leading states [1, p. 168].

In developed countries, we are already discussing building an intellectual society (a super-smart society or Society 5.0) [6, p. 13–15]. Science and technological innovations will ensure balanced economic development and solve social problems. Its top link will be the "smart industry" (English Smart industry)

[5]. A prerequisite for its creation is cooperation between industry, academia, and government [6, p. 14].

New opportunities will favor countries that create infrastructure, institutions, and business environments in which their companies and citizens feel empowered to reach their fullest potential [32]. Among the factors that directly affect the channels of the spread of crisis phenomena and the synchronization of cycles, we can distinguish:

- The growth in the speed of information transfer allows not only for reducing operating costs, as well as infrastructure and marketing costs but also to make decisions faster, based on more analytical data;
- Increased interaction with the end user due to omnichannel leads to an acceleration in the growth of loyalty, therefore, to an acceleration of the life cycle of products, which accordingly affects the acceleration of the life cycle of production/development of new products (the agile methodology is being implemented on ever larger structures);
- Transfer pricing allows multinational companies to smooth out internal costs through the interaction between individual international divisions (however, it often leads to tax speculation);
- An increase in the number of types of assets leads to the diversification of foreign investments, which reduces their riskiness for investors and increases the attractiveness of this type of investment; however, the growth in the volume of foreign investments itself leads to an increase in the risk of states' dependence on external financial sources.

Based on these factors, the following can be drawn:

- The length of cycles and, accordingly, the intervals between recessions and crises are reduced, similar to the shortening of the life cycle of most high-tech products;
- The risks of financial infections (contagious crises) increase due to the growth of unregulated, accelerating, and increasing volume financial flows between countries;
- The amplitude of local cycles increases due to the rise in the speed of the reaction of agents to economic downturns and the rapid withdrawal of funds from inefficient assets, as well as facilitating the possibility of international migration (in times of crisis, the outflow of the able-bodied population slows down the speed of economic recovery);
- The amplitude of the global cycle is smoothed out due to the growth in the number of participants in international relationships leading to the possibility of a quick change of counterparties and preventing the impact of negative factors in one country's economy on the economy of others.

International financial and economic organizations see technology as the main driver and condition for the survival of companies and countries [5].

## 6 Conclusion

Further technological development is formed based on the Concept of Society 5.0, which allows, thanks to the Internet of Things technology, to accumulate large amounts of information in physical space, which is analyzed by artificial intelligence and stored in cyberspace. In processing and collecting data, new decisions are made to solve social problems and implement safe and environmentally friendly innovations, which are returned to the physical dimension. The critical fact is the capitalization of results from introducing innovative technologies.

Thus, further development's main priority is replacing human labor with the latest knowledge, which is a source of value in technological development.

Based on the research, it is essential to form a conceptual vision of the resource provision of the country and its regions. Thanks to the provision of resources, a large number of issues related to

the economic and social well-being of the population are resolved, which is a priority issue for the countries of the world.

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## EUROPEAN EXPERIENCE IN FORMING A COMPETENT APPROACH TO TEACHING STUDENTS SPECIALISING IN HUMANITIES IN THE CONTEXT OF REFORMING HIGHER EDUCATION SYSTEM IN UKRAINE

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**Abstract:** The article aims to analyze the trends in forming a competency-based approach to teaching students of humanitarian specialties in the context of reforming the education system in Ukraine. The article's authors consider the European experience in developing functional education based on a competency-based model. The socioeconomic changes taking place in the world today are actively affecting many social institutions, including the education system. Therefore, decisions are required on questions about the mission, role, and significance of education in the development of society. Domestic education needs to be modernized, as it largely relies on transferring a certain amount of knowledge to students, needing more time to keep track of all the new market needs and update the knowledge system under these needs. Filling the student with a certain amount of information from different areas, traditional education does not teach them to systematize this knowledge of various disciplines into complex skills necessary to perform specific tasks. Thus, assessing students only by the amount of knowledge they can reproduce is not objective since it needs to reflect the readiness and ability of future young professionals to work independently in the professional field. Therefore, it is necessary to move from disciplinary education, which has now become dysfunctional, to functional education, which will systematize knowledge and skills by function. In the conclusions, the authors emphasize the advantages of the competence model of education based on the analysis of domestic and international educational experiences.

**Keywords:** Competence approach, European experience, Higher School, International practice, Modernization of education, Ukrainian educational reforms.

### 1 Introduction

The 2017 education reform has transformed the educational process in many ways. However, some changes are still controversial and are ambiguously perceived by the population of Ukraine [5]. The article presents an analysis of the educational process among students of humanitarian specialties, the purpose of which is to assess the place and role of education in modern Ukraine and Europe.

The education system's reform began in Ukraine when the state gained independence. The Law "On Education," which entered into force on September 28, 2017, brought the process to a new level. The legislative initiative envisaged a set of actions, the most significant of which were the creation of the New Ukrainian School and the consolidation of rural schools by creating pivotal schools in regional centers or large villages. The issue of the language of instruction was also considered separately. Students who belong to the indigenous peoples and national minorities of Ukraine and who began their education before September 1, 2018, in the language of the corresponding minority until 2020 gradually increased the number of subjects in the Ukrainian language. National minorities that study in one of the official languages of the European Union should increase the percentage of teaching subjects in the Ukrainian language until 2023. The prospects for solving the language problem in education are outlined in an interview with Hanna Novosad, which involves teaching not only in Ukrainian but also in languages European Union from 2023 [9].

In Europe and other countries, the methodological basis for training specialists in the vocational education system was rationalistic, inherently positivist approach to understanding the learning process as the transfer of knowledge about the subject area and the formation of professional skills. The tasks of modern education are increasingly presented as the formation of a set of skills [22] associated with the ability to proactively solve critical tasks that arise in professional activity and independently adapt to changing working conditions. The scientific justification

for this view of learning is presented as a competency-based approach.

### 2 Literature Review

Abroad, it is customary to distinguish three main approaches to defining and introducing into the practice of education a competence-based interpretation of the quality of learning outcomes: a functional approach (Great Britain), a multidimensional and holistic approach (France and Germany) [1], and the behavioral approach (USA). These approaches emerged independently, first in the US, then in the UK, and lastly in France and Germany. The experience of Germany's transition to a competency-based education model is of particular interest since a country with deep and firmly rooted educational traditions was able to quickly introduce changes related to competency-based innovations, which primarily affected the understanding of the quality and criteria for the effectiveness of education [12].

The prerequisites for the formation of a competency-based approach were the changed realities of the modern world and the emerging social order for the training of specialists flexibly associated with the available content of the professional activity. In the context of the growing processes of world integration and the mutual influence of cultures [24], higher education is tasked with preparing a future professional who must have not only deep professional knowledge in the chosen field but also be able to adapt flexibly to changing social conditions. The idea is to be a specialist and have a communicative culture and potential for self-development and make decisions in dynamically changing activity conditions. Such a demand for training has required in recent years to shift the emphasis in vocational education from the learning process to the result. The result of vocational training began to be called not the knowledge and skills of a specialist but his competence.

In the competence-based approach, knowledge, and skills are considered from the experience point of view. It is no coincidence that the researchers' concepts of this issue reflect experience as an independent educational result, along with knowledge and skills. The term "competence" has been widely used recently in socio-pedagogical research. This concept arises in various contexts and is understood differently by different researchers. The first mentions of the term "competence" in the scientific literature are found in the works of the German scientist Habermas, who uses this concept as a sociological term in the context of the theory of speech communication.

Social psychologists consider competence a set of qualities inherent in the most authoritative specialist, those qualities that every individual who masters the profession must achieve. Thus, competence is understood as an attribute of professionalism. The concept of "competence" is widely used in Western cognitive psychology. There it is considered a factor that determines the individual's self-awareness, behavior, and self-esteem and is more correlated with the general characteristics of the individual than with the elements of his professional activity. Thus, in psychological research, competence is mainly considered from two positions: the level of professional development of the subject and an element of his general psychological characteristics.

In works on management [6, 8, 10], competence was considered one of the main components of the personality or a set of known personality traits that determined success in solving the main tasks in the field of human activity and carried out in the interests of this organization. Competence occurs in the area of a specific problem, in a particular activity, in a specific specialty, or in a unique "sphere of competence" (i.e., "competence in general" does not exist). Thus, competence is considered an

essential new formation of the personality, which arises in the course of mastering professional activity.

Competence acts as a system concept, and competence is its component. Some scientists focus on "competence," defining it as a general ability based on knowledge, experience, values, and inclinations acquired through training. Thus, competence is not limited to knowledge, skills, or abilities. Instead, they consider competence as the ability to establish a connection between knowledge and a situation or, in a broader sense, as the ability to find and discover a procedure (knowledge and action) suitable for a problem. Being competent means mobilizing the acquired knowledge and experience in a given situation. In addition, it makes sense to talk about competencies only when they appear in some cases. The unmanifested competence remaining in the series of potentialities is not competence but, at the most, only a latent possibility.

Many teacher-researchers include an individual component in the definition of professional competence [2, 3, 7, 11]. Competence is considered a combination of mental qualities, i.e., a mental state that allows you to act independently and responsibly, as the possession by a person of the ability and ability to perform certain labor functions. That is, the essence of professional competence is expressed in the degree of connection between the objective standard of professional activity, reflected in regulatory documents, and the personal capabilities of the employee's personality. Although teachers recognize professional competence as a fundamental component of pedagogical culture, the level of development depends on the level of formation of their professional qualities.

### 3 Materials and Methods

The theoretical basis for reforming the education system in the modern world is the philosophy of education, which allows the creation of the fundamental basis for the modernization of Ukrainian education [1, 9], adjusting to the European educational paradigm. The Bologna process has become one of the forms of integrative and globalization manifestations in higher education. Mandatory parameters of the Bologna process:

- A three-level system of higher education;
- ECTS academic credits;
- Academic mobility of students, teachers, and administrative staff of universities;
- European Diploma Supplement;
- Quality control of higher education;
- Creation of a single European research area [12].

Implementing a competency-based approach is one of the mandatory components of modern higher education within this system. The competency-based approach models learning outcomes and presents them as standards of higher education quality (quality assurance system).

Competence cannot be interpreted only as a certain amount of knowledge and skills since circumstances play a significant role in its manifestation. The ability to mobilize acquired expertise and experience in a given situation means competence. When discussing the list of competencies, attention is drawn to the specific problems in which they appear. Competence cannot be isolated from the particular conditions of its implementation. It includes the mobilization of knowledge, skills, and behavioral attitudes focused on the requirements of a specific activity.

The acquisition of competencies is based on the experience and activities of the student. Based on the learning theory's achievements, this point of view is shared by many European experts. In other words, if the goal is for students to acquire competence, more is needed to develop curricula and methods for studying a particular discipline.

The acquisition of competence depends on the activity of the trainees, a set of professional skills that are the result of the experience acquired by students in everyday life and work, and

communication with teachers and comrades as a result of acquiring knowledge.

Thus, the key competencies of an individual are understood as the possession of general scientific and particular knowledge and the ability to apply them in practical activities, turning into skills and qualifications. Based on this understanding of key competencies, we define a competency-based approach as an approach that aims to form critical competencies in the form of knowledge and the ability to apply them in practice.

The idea that underlies the training can be formulated as follows: academic disciplines are built on the implementation of the principles of continuity in content:

- Introductory courses complement each other and are combined with elective courses;
- In approaches, the unity of the principles of organization of educational and independent work is realized in the gradual acquisition of professional skills;
- The unity of the requirements for students and implemented in the point-rating system;
- Orientation is on the practical application of knowledge and skills.

This unity can be traced, for example, in the application of various innovative forms of organization of the educational process:

- In the lecture part – this is the use, along with traditional forms of teaching, of problem lectures, lectures with elements of a video lecture or with elements of a multimedia lecture;
- In the practical part – along with traditional seminars, a system of problematic tasks aimed at practical mastering of the techniques and methods of analyzing cultural phenomena, the method of projects, and discussions on selected topics;
- In recommendations for independent work – in enhancing the skills of working with scientific and literary texts on the materials offered by the teacher, in accessing the resources of the media library and the Internet, in analyzing the cultural practices that exist in the urban space [21].

In this regard, competencies are indicated, the formation of which occurs at all stages of training. The set of competencies depends on the field of knowledge, which may include not one but several subjects. This way is proposed for building models of basic educational programs in humanitarian areas of training based on the TUNING-ECTS methodology to implement the principles of the modern educational process.

### 4 Results

The result of solving a professional problem can be expressed in different ways – in a "productive" form or the form of psychological and pedagogical changes [4]. Evaluation of the effectiveness of this result, based on the situation, indicates the competence of a specialist. For example, if a social worker has found or can find a way out of a specific range of conditions, he is competent. But the concept of competence is not reduced to the sum of knowledge, skills, and abilities, which is much broader.

The level of competence is a characteristic of an individual's educational practice results [13]. Thus, competence is a measure of competence development, and it is determined by the ability to solve prescribed tasks. The concept of competence includes cognitive and operational-technological components and motivational, ethical, social, and behavioral components. It has learning outcomes (as personal achievements), a system of value orientations, habits, responsibility for the consequences of actions taken, etc. Concerning each competence, different levels of its development can be distinguished (for example, minimal, advanced, and high).

In Raven's work "Competence in modern society," which appeared in London, the necessary professional qualities include:

- The ability to work independently without constant supervision;
- The ability to take responsibility for one's initiative;
- The ability to take the industry without asking others if they should;
- Willingness to notice problems and look for ways to solve them;
- The ability to analyze new situations and apply existing knowledge for such an analysis;
- The ability to get along with others; the ability to master any command on Their initiative (i.e., taking into account their experience and feedback from others) [5];
- The ability to make decisions based on sound judgment, i.e., having all the necessary material and needing help to process the information mathematically.

The specific content of the "key competencies" concept in the West is associated with an analysis of the request of employers [14]. When deciding to move up the career ladder, the employer pays attention to the following characteristics of the employee: readiness for growth; competence motivation; initiative; responsibility for the decisions made; thoroughness and accuracy in working with documents; productivity (ability to manage several projects at once); mobility; readiness for increased loads; experience in problem-solving in a group; experience in organizing a group to solve problems; ability to plan and predict; the ability to work with information for oneself and the group; the ability to effectively present the results of work; ability to rational, reasoned, thoughtful decisions.

In general, a competence-based approach is an approach that focuses on the result of education, and the result is not the amount of learned information but the ability of a person to act in various problem situations. The competency-based approach requires taking into account key competencies; generalized subject skills, applied subject skills, and life skills.

In foreign studies on the competence-based approach in education, it is noted that the traditional education paradigm does not satisfy, first of all, the "customer" of education (in particular, the social security sector) and the public. A university graduate whose training was aimed purely at transferring knowledge must prepare for independent and responsible work in specific work situations and lifelong learning. Traditional forms do not allow young people to reveal their creative potential and experience successful independent, and responsible activities.

In this regard, on behalf of European countries' governments, education system reforms have been developed and implemented. In the reform, the emphasis is on activities based on the initiative and responsibility of the students themselves. Within this activity, students must deploy, develop, and form complete essential competencies – the qualities or abilities of a person identified in the world of work as necessary properties of an employee.

Materials on crucial competencies, developed in England by the Cambridge University Examination Council, set the goal of determining the degree of actual development or formation of a particular competence in a situation of professional activity [20]. These materials provide for five levels or degrees of mastery of competencies, depending on the complexity of the applicant's tasks. In this case, the first level is essential. Everything else is built on it. For example, at the first level of problem-solving competence, the student is asked to show that he can correctly understand the problem proposed to him and make two suggestions for solving it. At the second level, when the task becomes more complicated, he should demonstrate that he can see the problem (situation), describe its main characteristics, and suggest two ways to solve it. At the third level, the requirements increase significantly; the student must show that he can study a complex problem and suggest three ways to solve it. Finally, at

the fourth level, he must build a strategy for using problem-solving competence and show that he can create opportunities to use problem-solving competence and determine the results he seeks. In other words, he must show what opportunities he sees for developing problem-solving competence in various work or study situations in which he is involved over, for example, three months. At the fifth level of difficulty, the student must show that he can manage the group's work, i.e., take the lead by adopting the strategy needed to address at least two complex issues while achieving the required quality of results. In the process, he is required to keep employees motivated and establish effective relationships to help himself and others. At this level, the integration and use of other competencies are required: communication and the competence to work with people.

The competency-based approach corresponds to the understanding of the fundamental goals of education formulated in UNESCO documents [7]:

- Teach to gain knowledge (teach to learn);
- To teach to work and earn (teaching for work);
- Teach to live (teaching for being);
- Teach to live together (teaching for living together).

Based on this, the following key competencies should be formed as part of university training:

- Competence of learning (transformation of learning into self-learning, self-development, work on oneself);
- Communicative competence [24];
- Information competence;
- Organizational competence.

The formation of a student's professional competence in the process of studying at a university can be implemented if the structure of the personal potential of the future specialist includes the following:

- Professional knowledge, abilities, skills (qualification potential);
- Working capacity (psycho-physiological potential);
- Intellectual abilities (educational potential);
- Creative abilities (creativity);
- The ability to cooperate and interact (communicative potential);
- Value-motivational sphere (moral potential).

A competent specialist can be considered only one whose practical activity is based on universal moral values, is brought to life by suitable methods, and is armed with theoretical knowledge and functional analysis techniques.

- The competency-based approach in world educational practice;
- Combines the intellectual and skill components of education;
- Interprets the content of education formed "from the result";
- Includes specific or closely related skills and knowledge related to a wide area of culture and activity.

There is a point of view according to which interest in the problem of studying competencies usually coincides with crisis phenomena in the economy, education, and culture [15]. In one of the most famous programs – the project "Tuning Educational Structures" (TUNING), i.e., setting up educational structures in Europe, the priority direction of joint efforts in the field of educational methodology is the definition of general and special competencies of graduates of the first and second levels of education. The essence of the project is to use the tools of the Bologna Process for the coordinated presentation of the structures and descriptions of programs at all levels based on a competency-based approach. The second, more fundamental and less policy-oriented, position adopted by the project is that the setting up educational structures is based on a competency-based

approach. This approach involves the consideration of individual courses, programs, and cycles (levels) of training through competencies and learning outcomes.

Learning outcomes are descriptions of what the learner is expected to know, understand and be able to demonstrate after completing the learning (completion of a module, course, or program). In addition, the learning outcomes specify the requirements for credit assignments [16]. Credit refers to a notional estimate of the workload required to complete an element of a training program and is awarded upon successful completion. The results of education, expressed in the language of competencies, according to Western experts, are the way to expand academic and professional recognition and mobility, to increase the comparability and compatibility of diplomas and qualifications.

The project defines competencies as a dynamic combination of knowledge, understanding, skills, and abilities. Competence development is the goal of training programs. Competences will be formed within the framework of various courses and assessed at each stage of training. The TUNING project formulated learning outcomes for first and second-degree (common descriptors for higher education qualifications). Competencies are divided into general and special to describe the degrees and their corresponding cycles. The project sees a unique role in competencies in developing a new educational paradigm. This concerns, first of all, the transition from education centered on teaching to education centered on learning.

The definition proposed in the European TUNING project can serve as a definition of competencies. The concept of competencies and skills includes:

- Knowledge and understanding (theoretical knowledge in the academic field, the ability to know and understand);
- Knowing how to act (practical and operational application of knowledge to specific situations);
- Knowledge as being (values as an integral part of perceiving and living with others in a social context).

Competences should be supported by personal qualities (for example, efficiency, diligence, dedication, endurance, overcoming difficulties, restraint, optimism, tolerance for disappointments, etc.) [18], which indicates the importance of the systemic nature of the formation of competencies. Educational competence is a set of semantic orientations, knowledge, abilities, skills, and experience of the student concerning a specific range of objects of reality necessary for implementing personally and socially significant productive activities.

During the work of the TUNING program (in which more than 100 universities from 16 countries that signed the Bologna Declaration took part), several groups of competencies were identified:

#### 1. General competencies:

- Instrumental competencies;
- Interpersonal competencies;
- Systemic competencies (a combination of understanding, attitude, and knowledge that allows one to perceive how the parts of the whole relate to each other and evaluate the place of each of the components in the system, the ability to plan changes to improve the system and design new systems).

#### 2. Special (professional competencies):

- Basic general professional competencies in the chosen field of activity [23];
- Professionally profiled (specialized) competencies per the graduate's specific profile or specialization.

The drafts of new state standards assume the consolidation of the same general competencies for one direction of education. At the same time, the number of competencies increases with the

transition to a higher level of education. Therefore, the formation of each competence should be provided by a particular set of disciplines (or practices) combined into appropriate modules. Furthermore, the content of discipline modules should fully correspond to the level of these competencies.

## 5 Discussion

The preparation for a bachelor's in university has now become a reality. Moreover, the transition to a two-level system of education at the university has taken place, so it makes sense to discuss how to do training according to the new system effectively and relevant to the requirements of the time. Strategically, the task is understandable and feasible – the exercise should be based on mastering, not a sum of knowledge but a set of skills that become the basis for future professional activity. Moreover, the emphasis should be placed on the activity component of education, including the intellectual and operational details.

The modernization processes in education are especially difficult for humanitarian and pedagogical education. This is due primarily to the general attitude towards fundamental knowledge in the humanities, which can be mastered in a different volume during the transition to a two-level education. There are two trends in understanding how content should differ between bachelor's and master's (4-6 years of education) and specialists (5 years of education). According to one of them, bachelors should study in less time and master the same volumes of information as specialists. According to the second, it is necessary to "stretch" for six years what was previously studied for five. Both tendencies reveal a lack of readiness for an adequate response to the challenge of the times. The issues of pedagogical education proper seem to be more resolvable since the discussion about what a modern teacher should be like and what competencies he needs to acquire in the process of professional training have been discussed for a long time, and there are deeply thought-out answers.

Let us dwell on the preparation of a bachelor in the direction of "Pedagogical education," as a result of which a professionally oriented person with modern knowledge in the humanities and pedagogical technologies should appear. In our opinion, the professional activity of a bachelor consists of the scientific and practical understanding of the analysis of various social and socio-cultural practices and forms, the means of their translation and normative consolidation in multiple areas of social life, activities to preserve cultural and natural heritage, the ability to use them in the process of acculturation and socialization of students both in the system of general and in the scheme of additional education. This means the breadth of the bachelor's activity in educational, state, and public institutions and organizations related to the production, broadcasting, and preservation of diverse academic forms.

To be able to fulfill the professional duties assigned to him, a graduate of a pedagogical university must be prepared based on a competency-based approach, which is aimed at developing the student's social and personal, general scientific, organizational and managerial, general professional and particular competencies. To achieve the goals set, we propose a model for preparing a graduate studying in the direction of "Pedagogical education." We distinguish two "sets" of competencies:

- Universal, formed in the process of mastering such areas of knowledge as social and humanitarian knowledge [23, 24];
- Language communications [22, 25].

The specificity of pedagogical education lies in the fact that, along with subjects common to all students studying in this profile and ensuring the unity of the educational space [25], subjects in the variable part should be introduced disciplines that meet the needs of a particular region. So, for some areas of Ukraine, the emergence of a graduate who represents the values of regional culture and acts as their translator, for whom

educational activities to familiarize with cultural heritage are of particular importance, is seen as relevant. In this regard, in the variable part, we propose to introduce the disciplines of regional issues and on their basis, to reveal the practice-oriented component of the training of a future specialist.

For students of humanitarian specialties, there are few practice-oriented courses in the total volume of professional training. These are disciplines related to the mastery of information technology and teaching methods. At the same time, there are detailed requirements for the level of training of students in line with the competency-based approach, in which a particular place is given to (a) mastering the techniques of information and descriptive activity, systematization of data, structured description of the subject area; (b) methods of processing, analysis, and synthesis of information; (c) skills of reasoned presentation of one's point of view in oral and written form, discussion; (d) ability to business communications in the professional sphere; (e) ability to work in a team; procedures for the practical application of analysis techniques to various cultural forms and processes of modern society; (f) methods of expert evaluation of the quality of research and types of socio-cultural activities; (g) skills of scientific and methodological work [17].

To overcome this contradiction, we offer students the creation of educational and educational projects based on regional material, which makes it possible not to simulate (essentially, a game), but a particular case. In studying the educational material in the disciplines of the variable part, there is a constant appeal to the knowledge obtained as primary. In practical activities, by offering students to update their existing skills in working with multimedia, we focus them on presenting their projects to the "public" (undergraduate students) and on the ability to organize a discussion of the problems raised in projects within the framework of exhibitions and presentations. This is how the task of combining the theoretical training of a future specialist and practical orientation toward pedagogical and educational activities is realized.

The proposed model of preparing a future teacher in "Pedagogical education" is being developed in master's and postgraduate education programs. It realizes the possibility of training a specialist with the qualities of social mobility, able to adapt to current market conditions and demand in the labor market.

It is also expected to change the role of the teacher. He becomes a systematizer of knowledge, a "key player" in teaching the main, basic concepts, and a leader and curator of students working at higher levels of counseling and motivating the latter. Such a shift leads to a change in approaches to educational activities and a change in educational material and educational situations since it stimulates the involvement of the student – individual and group – in the preparation of presentations, articles, organized feedback, etc. In addition, a shift in emphasis from input to output is also reflected in the assessment of student performance.

On the way to modernizing general education, the main provisions of the competence-based approach in education are formulated, the central concept of which is competence. It is emphasized that this concept is more comprehensive than knowledge and skill. It includes them (although we are not talking about competence as a simple additive sum of learning – skills – experience. This is a concept of a slightly different semantic series). The idea of "competence" includes cognitive and operational-technological components and motivational, ethical, social, and behavioral components.

Such a broad definition of the conceptual content of competence makes it much more challenging to measure and evaluate it as a result of learning, to which the developers themselves pay attention. These ideas were developed during modernization of education. It serves as one of the basic principles determining the strategy for developing domestic education. A general education

school should form an integral system of universal knowledge, abilities, and skills, as well as the experience of independent activity and personal responsibility of students, that is, key competencies that determine the modern quality of educational content. The emergence and understanding of the concepts of "competencies" and "competence-based approach" in educational theory were caused by the entry of the education system into the Bologna process and the adoption of Western scholastic terminology. As part of the Bologna process, European universities, to varying degrees and with varying degrees of enthusiasm, are mastering (adopting) a competency-based approach. It is seen as a tool for strengthening the social dialogue of higher education with the world of work, deepening their cooperation, and restoring mutual trust in new conditions.

The competency-based approach in education is due to the following:

- Information explosion;
- The transition of higher education to the language of the business community;
- The need to reorganize the entire education system of the country.

The reasons that caused the need to introduce a competency-based approach to education are as follows:

- Pan-European and world trends of integration and globalization of the world economy;
- The need to harmonize the "architecture of the European system of higher education";
- The change in the educational paradigm that has taken place in the last decade;
- The richness of the conceptual content of the term "competence-based approach";
- Prescriptions.

Thus, in the practice of domestic education, the competence-based approach is fixed as follows:

- One of the approaches to assessing the effectiveness of educational practice, according to which the criteria for effectiveness are competence and competencies [19];
- As a method of modeling the results of education and presenting them as norms for the quality of the activities of an educational institution [26].

A distinctive feature of the implementation of the competence-based approach in the educational process is the development of the ability of students to independently solve problems in various fields and activities based on the use of social experience, an element of which is their own experience.

## 6 Conclusion

The competency-based approach implies a holistic experience in solving life problems and performing fundamental functions, social roles, and competencies. From international practice, the "competent worker" model indicates the necessary qualities of a specialist: communication skills and the desire for self-development. The main result of implementing the competence-based approach in the conditions of an educational institution is the formation of a person's ability to see, understand and evaluate various problems, constructively resolve them according to their value orientations, and consider any difficulty as an incentive for further development. In Ukraine, implementing the competency-based approach can be an additional factor contributing to maintaining a single educational, vocational qualification, and cultural value space.

The competency-based approach is designed to restructure educational programs in such a way as to bring learning outcomes closer to the needs of the economic and democratic institutions of European-type societies. Also, it is one of the tools to overcome the contradictions between different national education systems when trying to harmonize them. Thus, the

competency-based approach is an international and inter-university tool for developing educational programs. The content of competencies is a product of multilateral interaction between universities and other stakeholders.

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#### Primary Paper Section: A

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## THE ROLE OF HUMANITARIAN DISCIPLINES IN UKRAINE'S HIGHER EDUCATION SYSTEM IN FORMING A SOLID LEVEL OF CIVIC CULTURE

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**Abstract:** The article aims to discuss the study of the humanities in universities as the most important factor influencing the development of students' culture and the creative evolution of the individual. The methods of pedagogical influence on students are described. One of the essential tasks of higher education is the education of a comprehensively developed personality capable of competently solving the complex problems of modern life. The profound changes occurring today in all spheres of life determine the specifics of civic education and the upbringing of young people. The article's authors showed the importance of the role of the humanities in forming a solid level of civic culture, which is the basis of the civic activity of the individual. Furthermore, humanitarian disciplines create conditions for developing students' civic position and legal culture, which is the basis for the harmonious development of society and the state as a whole.

**Keywords:** Civic culture, Higher Education, Historical overview, Humanities, Legal culture, Pedagogical role, Social responsibility, Ukraine.

### 1 Introduction

Humanitarian education is a body of knowledge in social sciences (philosophy, psychology, history, philology, law, economics, art criticism, etc.) and related practical skills and abilities. The humanities study the individual, his connection with nature, society, and relationships with each other. The subjects of the humanitarian cycle have additional features since they carry a spiritual load, thereby prompting a rethinking and awareness of what is known or assimilated – making a significant contribution to forming a solid level of civic culture of the person [1].

A modern person lives in a changing world, so he must be ready for various social and professional roles for civic and personal responsibility. The upbringing of a citizen and a patriot who actively participates in public life is the most crucial task for any country. The youth is the most active and mobile group in society. Its views and moral image have an increasingly significant impact on the social and economic processes taking place in our country. Therefore, it is necessary to know the psychological characteristics of the student and the ability to influence his personality purposefully for the successful solving of educational problems in higher education at the present stage.

Humanitarianization of higher education in Ukraine, in our opinion, should focus on the essence of the person himself, i.e., be based on the following ideas: firstly, self-development is inherent in a person, which higher education should contribute to [2]; secondly, a person is open to the world and must learn to interact not only with his material but also spiritual values. The cycle of humanitarian disciplines implements essential functions of an educational and upbringing nature: the development of creative individuality, personal qualities, aesthetic taste, and value orientations.

Disciplines of the humanities cycle are necessarily present in the curriculum of each university in the prescribed amount. Each academic discipline has a standard containing a minimum list of requirements for the assimilation of educational material that is presented to the student. So, for example, students, along with professional technical disciplines, study the following humanitarian fields: as a federal component – philosophy, a foreign language, physical culture, history; as disciplines of choice – cultural studies and culture of speech, political science, sociology, psychology, and pedagogy [12]. Thus, Ukrainian universities have many humanitarian disciplines of various

orientations [7]. On the one hand, the number of hours allotted for their study needs to be increased. On the other hand, it needs to be more balanced between the humanitarian subjects themselves, which in a certain way, affects the quality of personality development. In addition, sometimes, there are serious problems associated with the content of these items.

### 2 Literature Review

Education brings freedom, and it is not freedom that creates education [40]. The value and significance of the humanities were discussed with renewed vigor at the beginning of this millennium. Technologization of all aspects of life leads to the emasculation of the human principle, the transformation of a person goes along the line: of an individual – personality – actor (agent of activity) → factor (human factor) → extreme rationalization of attitudes towards oneself, other people and the world → the emergence of *homo sapientissimus* (a rationalized technogenic human who prefers calculation instead of morality, programs instead of duty, and success instead of happiness). Another name for such a creature is *homuter* (homo vs. computer) [11].

The solution to the problem is seen in preserving the humanitarian component of education [21]. Students of the humanities faculties receive the skills of a dialogical, self-critical, and flexible way of thinking. They discover the world around them, and things in it are filled with meaning, so it is only possible to live a successful life in the present with knowledge of the past. They learn that understanding the world and creating a meaningful world are closely related, that the creation of such a world is the work of many people and that it is accomplished in time.

Educating civic culture issues occupied an important place in the history of political thought [4]. Ancient thinkers Socrates, Plato, Aristotle, Cicero, and Socrates emphasized that the main civil virtue is law-abiding, and knowledge of the laws is helpful to a person, contributes to his earthly happiness, and is equivalent to morality. In reflecting on the ideal state, Plato emphasized that every free person is obliged to participate in the state's government. Aristotle called a citizen someone who exercises a given state's legislative and judicial power and has a set of civil rights and obligations. According to the philosopher, the state's laws should be designed to educate citizens on essential virtues. The ancient Roman thinker Cicero put the fulfillment of civic duty above all virtues. In his opinion, civic duty is the highest duty of a person.

Furthermore, citizens must study the sciences that can make them valuable people to the state [12]. The ideas of civic education and the upbringing of civic culture were further developed during the Renaissance and Enlightenment. In the 16th century, the French thinker Jean Bodin suggested that every person should help strengthen the power and fulfill the state's laws, that is, in the language of modern political science, fulfill his civic duty and be civic active. The most important aspects of civic education are also reflected in the works of Spinoza, Locke, Montesquieu, and Rousseau. The importance of civic education and engagement can also be traced to the results of Dewey, Ushinsky, and Makarenko. All this indicates that the education of a civic culture, which is the basis of the civic activity of an individual, is the most important task of higher education.

Successful upbringing requires a correct understanding of the laws of personality development and the conditions conducive to the upbringing of universal values of the personality, its stimulation to self-development, and self-education [8]. Marx defined the essence of man as the totality of all social relations, and Makarenko developed this idea in his theory of pedagogical instrumentation. The nature of the relationship of the pupil is of



decisive importance in education. These relationships depend on his activities, daily behavior, and, in general, the quality of his life experience [5]. Proper conduct is fixed in the form of positive character traits and habits, and wrong behavior is fixed in negative ones [14]. Appropriate methods in each case must deal with negative actions. It is necessary to touch the personality according to a particularly complex instrumentation so that the student feels like a citizen and not an object of education. The concept of "instrumentation" includes the characteristic relationships between the student, the teacher, and the team, which give a particular educational effect. Makarenko created new methods of pedagogical influence (the methods of "explosion," "manifestation of indignation," and "irony") and used the standard methods of "persuasion," "condemnation," and "punishment." The combination of various instrumentations "parallel pedagogical action" when approaching the personality.

Multiple methods of pedagogical influence are formed empirically in the process of pedagogical activity [22]. Practice is a single matter, and if, in education, one recognizes the correctness of one practice, then even such a transfer of advice is impossible. A thought derived from experience is transmitted, but not the experience itself. Teachers must familiarize themselves with various techniques to choose the most appropriate one for each case [28].

### 3 Materials and Methods

The disciplines of the humanitarian and socio-economic cycle allow the formation of such competencies of a specialist, without which further innovative and stable development of society is unthinkable: oral and written communication in the native language, knowledge of a second language, leadership, initiative, interpersonal skills, the ability to work in a team, the ability to criticism and self-criticism, the ability to communicate with specialists from other fields, the ability to work in an international environment, adherence to ethical values, the ability to plan, make decisions, the ability to adapt to new situations, project management [36].

One of the goals of studying the humanities is to create conditions for the further democratization of society [30]. Democracy presupposes the active participation of the people in the country's political life and the recognition of the principle of equality and freedom of all people. Genuine democracy can function in a society with a high degree of general and political-cultural development, significant social and political activity of individuals and their voluntary associations, ready to defend the institutions of democracy. Within the framework of a given direction at scientific and practical conferences, students present the problems of forming a solid level of civic culture among today's youth. Civic culture implies versatile political and social knowledge, orientation to the values and rules of life of a democratic society, and mastery of these rules.

Aesthetics, ethics, cultural studies, and literature teach morality, humanity, and the ability to interact with others. In cultural studies and psychology classes, students adapt to the system of interpersonal and social relations, increase their self-realization, develop associative thinking and creative imagination, and broaden their horizons [5]. Within the framework of these disciplines, students learn the phenomenon of culture and its role in human life. However, comprehending practical, cultural studies, everyday life, and behavioral culture are no less critical. Most students understand that social and cultural knowledge will be helpful in future professional activities. Many consider the culture at the level of civilization, associating it with a unique communication style. Among culture's main features are tact, politeness, tolerance, and the ability to understand another person.

A significant role in forming a solid level of civic culture in the student's personality belongs to aesthetics, the philosophical science of beauty – in nature, art, and society [19]. But aesthetics are also beauty itself, which is essential to be able to see and

create. Of course, it is helpful for students to know the signs of beauty: harmony, practicality, sense of proportion, etc.

A special place within the framework of humanitarian education in Ukraine belongs to law [13]. The law provides unique opportunities for solving modern pedagogical problems being both a field of science and a lot of practical activity, allowing the student not only to acquire legal and related knowledge about various areas of public life but also to develop special abilities and practical skills of social action. The uniqueness of law as a specific form of social consciousness and social practice also determines the significant educational potential of legal courses.

The study of the basics of legal knowledge by engineering and technical university students is considered a condition for improving their business skills. Therefore, when choosing the content and volume of legal information in the learning process, students learn to be guided by certain principles. The most important of them are the relevance and timeliness of information (its need for everyday life at the present or shortly); concreteness and accessibility (disclosure of concepts on examples from real life); reliability and objectivity (the optimal ratio of positive and negative models).

The right of a citizen is a practical value [15]. Therefore, this tool allows one to measure one's aspirations, desires, and interests with the generally accepted norms of the hostel and achieve the set goals legally to feel confident in situations that are regulated or, under certain conditions, can be controlled by law. With this in mind, the practicality, relevance, and applicability of the legal knowledge and skills acquired by each student in real life became the criteria for selecting the material's content. The generalization of pedagogical methods' influence and the corresponding concept formation is based on the ideas of pedagogical instrumentation as a necessity in the approach to the students [37]. The starting point in the use of methods of pedagogical influence is the ascertainment of certain shortcomings in the behavior of the student and the desire to eradicate them by developing positive qualities. Each technique is due to the interaction of the following factors:

1. The peculiarity of the created pedagogical situation. For example, when "showing kindness, attention, and care," a student who has committed an offense is struck by the unexpected attention of the teacher because he understands that he did not deserve such an attitude by his behavior. But with "seeming indifference," the pedagogical effect is created due to the contrast between the teacher's expected confusion and complete self-control.
2. The content of the student's feelings in the new pedagogical environment contributes to the emergence of unknown motives for behavior and overcoming their shortcomings [23]. For example, "showing kindness, attention, and care" evokes in students joy, gratitude, appreciation, commitment to the teacher, and the desire to impress him with his good behavior. "Apparent indifference" gives rise to disappointment and annoyance in connection with an unsuccessful undertaking and, at the same time, respect for the teacher for his endurance and skill.
3. Objective physiological and psychological patterns, based on which a person has specific thoughts and feelings and positive changes in his mind [16]. So, gratitude, a characteristic of "showing kindness, attention, and care," arises from certain relationships as one of the crucial sources for developing human feelings.

The pedagogical effect of "apparent indifference" is explained by the laws of formation and inhibition of conditioned reflexes. A defiant act without the expected reinforcement loses its meaning and grounds for repetition.

### 4 Results

Civil culture is the level of nature and content of moral, legal, political, aesthetic, and other knowledge and skills of a person, helping him realize his civil rights and obligations and determine

his place and role in solving society's problems [24]. This phenomenon has some peculiarities. Firstly, civic culture includes a set of knowledge, skills, and abilities that determine the patterns of social activity of an individual, transmitted from generation to generation. Secondly, it is always a movement, the individual's desire for certain ideals, the development of the rule of law, and civil society. Thirdly, civic culture results from the interaction of external predestination (objective factors) that encourages a person to engage in social activity and internal necessity (subjective factors) – interests, values, needs, attitudes, etc. [17].

The reception of pedagogical influence is a way of organizing a particular pedagogical situation. Based on appropriate physiological and psychological patterns [16], students have new thoughts and feelings that encourage them to overcome their shortcomings. Pedagogical methods of education are very diverse [2, 3, 11, 15]. In order to consciously choose the means to achieve the goal of education and to be sure that the standards we have chosen are better, we must first become familiar with these means themselves. In our study, the following methods of pedagogical influence were identified: (a) persuasion; (b) encouragement; (c) the manifestation of kindness, attention, and care; (d) the manifestation of the skills and advantages of a teacher; (e) activation of the secret feelings of a person; (f) mediation; (g) flank approach, (h) the awakening of humane senses, moral support and strengthening of self-confidence; (i) organization of success in learning; (j) trust; (k) attraction to enjoyable activity; (l) exercise; (m) parallel pedagogical action; (n) order; (o) kind reproach; (p) hint; (q) seeming indifference; (r) irony; (s) debunking; (t) seeming distrust, (u) the manifestation of anger; (v) condemnation; (w) punishment; (x) explosion.

The proposed classification of techniques facilitates their practical use, but to a certain extent, it is conditional since they are not clearly distinguished from each other. These techniques can be considered from three points of view:

- The direct or indirect influence of the teacher on the student is taken into account. Among these methods, only "parallel pedagogical action" is an indirect influence;
- Slow or rapid fundamental changes in the mind of the student are influenced, for example, when using the "explosion" technique;
- The content and emotional coloring of emerging feelings and how positive changes in the student's behavior occur are considered.

Constructive techniques (persuasion, encouragement, manifestation of kindness, attention, and care, manifestation of the skills and advantages of the teacher, activation of the hidden feelings of the educatee, mediation, flank approach, awakening of humane feelings, moral support and strengthening of self-confidence, organization of success in teaching, trust, attraction to interesting activities, exercise) contribute to the improvement of behavior based on the feelings that inspire the student, for example, joy, self-confidence, respect for the teacher [31].

Inhibitor techniques (parallel pedagogical action, command, kind reproach, hint, seeming indifference, irony, debunking, seeming distrust, the manifestation of anger, condemnation, punishment, explosion) contribute to overcoming the negative qualities of the student. In pedagogical practice, both groups of techniques are combined and combined [17]. Thanks to the exceptional plasticity of the higher nervous activity of human, nothing remains immobile and unyielding, and everything can always be achieved and changed for the better so that the appropriate conditions are realized.

The humanities must:

- Take into account the general ideology of state policy [6];
- Promote the development of the regional system of higher and secondary specialized education [38];

- Provide a logically consistent presentation of educational material;
- Assume the use of modern methods and technical means of intensifying the educational process, allowing students to deeply master the educational material and gain skills in its use in practice;
- Comply with modern scientific ideas in the subject area; provide interdisciplinary connections.

The necessary conditions for the formation of a personality focused on the modern lifestyle of a highly moral person are:

- The wealth of his inner spiritual culture;
- Intellectual freedom;
- High moral potential;
- Good aesthetic taste;
- Tolerance in interpersonal and social communication [35].

The development of all these qualities is only possible with the creation of an effective system of training and education. Each educational institution has its exceptional cultural environment, reflected in the ethics of interactions, extracurricular activities, and events traditions [39]. Within the framework of the study of the humanities, the entire complex of educational tasks facing students of a technical university is practically realized. The teacher constantly interacts with the pedagogical culture when he assimilates the culture of professional activity, living and acting in a certain cultural and pedagogical environment. Being the bearer and translator of pedagogical values, he creates and develops professional culture as a subject of pedagogical creativity.

It is essential to pay attention to the relationship between the concepts of "general culture" and "civil culture" [29]. The relationship between these cultures is determined by the latter acting as a particular kind, a subsystem of culture. The concept of shared culture is much broader in content since various cultures form their richness [18]. The core uniting the general and civil culture is universal values and norms. They underlie the culture of any social community. In turn, civic culture contains specific values and standards. There are no rigid boundaries between general and civic culture. They are in the process of a two-way exchange. Part of the knowledge, values, and norms developed by civil culture can become common property. And vice versa, the culture of a society influences the formation and development of civic culture, transmitting new knowledge, values, and norms into it. In studying political science, it is imperative to find the relationship between the concepts of "civil culture" and "political culture." They are mutually intersecting subsystems of culture. Unlike civil culture, political culture is a more private concept that characterizes the political life of society. Such a culture reflects stable forms of political consciousness and people's activities, which determine the nature and direction of political processes.

## 5 Discussion

Thus, the general, civil and political cultures are correlated as general, special, and singular. Humanitarian disciplines perform the following specific functions in the formation of a civic culture for young students:

- The function of cognition (students learn a particular set of knowledge and skills that they need for later life (mainly for subsequent study and work));
- The function of forming a worldview and life position;
- Communicative function (role-based and interpersonal communication help students master various social roles, introduce them to the social structure of society, and provide emotional support and development) [25];
- Familiarization with the norms of morality and law, cultural values, and national traditions (there is a formation of the internal qualities of the individual behind the external rules of socially approved behavior, values, and ideals);
- Familiarization with aesthetic, political, and civil norms;

- The function of social creation (involves the implementation by students of positive (beneficial, constructive) activities about the outside world: people, society, nature), etc.

The civic culture of young students presupposes the presence of deep and systematized knowledge in the humanities, supplemented by civic knowledge [34]. Undoubtedly, civic knowledge is of particular importance since it is based on the idea of the individual's full participation in solving the socially significant tasks of society. It is this that serves as the basis for the formation of civic skills and abilities.

Civil skills are mastered in various types and organizational forms of activity aimed at solving specific problems of the functioning and development of territories, regions, and the country as a whole [26]. A civic skill is a set of skills that help the student achieve optimal results in social activities. The formation of a civic culture among young students first involves the assimilation of special knowledge related to identifying the needs of society in its reproduction and development. Humanitarian knowledge plays an essential role here, which makes it possible to ascertain the content and orientation of the needs and interests of various social communities, the majority of the country's population. In this regard, it is imperative to carry out exceptional explanatory propaganda work, which allows orienting young people towards adopting those values, which ensures the country's economic, political, and spiritual development.

The study of the humanities opens up great opportunities for this activity. In modern civic culture, the broad masses of young people, including students, are alienated from the values of the world and national culture. This primarily affects young people because their value system is in the process of formation, and their civic culture depends on how it is formed and what values young people choose.

If circumstances create the character of a person, then, therefore, it is necessary to make the events humane [10]. Thus, the possibilities of education are unlimited, and the educator's pedagogical optimism is manifested in all students' behavior. It creates conditions for the re-education of those who are challenged to educate. In pedagogical optimism, the educator's worldview is manifested [19]. His politeness, delicacy, benevolence, and respect for the personality of the educated person are realized. For the active use of methods of pedagogical influence in specific circumstances, the teacher must know the principles of education:

1. The principle of including the individual in significant activities, since only in this way can the teacher count on the full-fledged movement of the pet, which, in the conditions of an organized educational process, will ensure its self-development.
2. The principle of changing the social position as the introduction into the social technology of the educational process of conditions for the possible choice of social positions and the transition from one to another. Ideal situations for implementing this principle arise when using game methods of education with changes in the game role and, accordingly, the social position.
3. The principle of purposeful creation of emotionally enriched situations prescribes the stimulation of experiences as the most convenient psychological mechanism for the formation of social attitudes and value orientations.
4. The principle of demonstrating the consequences of the act of the educated person for the reference group, the attitude, and the assessment of which are important to him. It has been established that the practical demonstration of the troubles or joys of those people for whom the educator is not indifferent, the awareness of the evil or good that he has become a source of for them, transforms his semantic attitudes and value orientations.
5. The principle of developing personal and social reflection provides a systematic motivation to realize and analyze one's intentions and behavior, influence the feelings and

attitudes of others, predict their social expectations, counter actions to further self-regulate one's social behavior, and optimize relationships with other people.

Achieving a positive result when using a pedagogical technique depends on the attitude or trust of the student to the teacher. These feelings arise when the teacher is sincerely interested in the student's fate. The character traits of the teacher that appear in the process of using the methods of pedagogical influence are fixed and improved in his pedagogical experience. Thus, creative activity achieves good results in educational work and develops the teacher's personal qualities [9].

Other positive influences can further reinforce the impact of one technique. Some techniques themselves contain a series of actions ("organization of success in learning," "moral support and strengthening of faith in one's strength," "exercise") [32]. The positive effect of the reception of pedagogical influence is ensured when the reception is correctly selected and used. The emerging feelings of the student can determine this. Indifference indicates that the technique used did not produce the proper impact. The appearance of anger or distrust of the teacher means that a pedagogical error was made or the technique was chosen unsuccessfully.

Changes in the student's mind are complex and are achieved by combining various methods of pedagogical influence in a specific sequence following the dynamics of personality development. Some are more appropriate at the initial stage of influencing the student, others help bring things to a turning point, and others reinforce the received pedagogical victory. For example, suppose a student does not study well or behaves defiantly, trying to draw attention to himself. In that case, the teacher can see "imaginary indifference" weaken interest in such antics and the student's "attraction to interesting activities." Taking into account abilities, allow him to get carried away with helpful work and reveal himself, that is, to use moral support and support faith in one's strengths. Then the teacher can stimulate the "organization of learning success" until the student shows promising results.

The effectiveness of the techniques depends on the student's personality and many other circumstances that the teacher must take into account. It is advisable to study the described methods of pedagogical influence on students as part of a unique course for students of a managerial profile. In the first lesson, brief information about the practices of pedagogical power and their place in the system of educational work should be presented. In each class, new methods of pedagogical influence should be studied. Each technique's theoretical characteristics in the lesson are illustrated and concretized by the corresponding tasks, including literary or newspaper text and questions.

Therefore, questions to the text should be aimed at identifying the elements, the knowledge of which is necessary to reveal the essence of the reception of pedagogical influence and its main features:

- The nature of the student's fault;
- Objective conditions of pedagogical admission: the student's characteristics, family conditions, his place in the team;
- Feature of the new pedagogical situation created by the teacher;
- Objective manifestations in the student's behavior, indicating the planned shifts in his mind.

The analysis of tasks requires the student to get acquainted with the theoretical material of the corresponding technique. Then, students independently analyze examples for each method and give similar examples from their own experience, recalling individual episodes from their school life.

For a solid level of civic culture of student youth, the same values are inherent as for other social groups of the population. These include freedom, education, work, social work, respect for other people and nationalities, security, law-abidingness, etc.

These values represent the content-forming aspect of civic culture [11]. They characterize the civic position of young people, the direction of their aspirations and activity, and determine the selectivity of the attitude toward material and spiritual values.

In the student's mind, the values of a civic culture are presented in the form of ideals, goals, and norms of his life and are embodied in relationships, actions, and activities. It should be noted that the criteria of the civic culture of young students and civic values are historically changeable [27]. Nevertheless, students' adherence to the legally established principles and models in their activities can indicate how much they translate civic values into the system of their importance.

Based on the experience of teaching the humanities, four types of students can be distinguished, which differ in the level of development of civic culture [33]. The first type can be conditionally called "activists." It is characterized by knowledge of citizenship and active citizenship. Approximately a quarter of students are carriers of this type of civic culture. "Activists" are consciously guided by civic values and norms, building their role-playing behavior following them.

The second type can be conditionally designated as "missing." This group is made up of young people, characterized by the relationship between the passive position of role-playing behavior and the knowledge of citizenship. Absentists are students who have knowledge of citizenship and share civic values and norms. At the same time, they are characterized by passive behavior in society.

The third type can be conditionally designated as "developers." On the one hand, this type is characterized by partial knowledge of citizenship, an orientation towards universal values, and a readiness to participate in social activities. Among students, the proportion of representatives of this type is approximately half. They have yet to be interested in social activities. Representatives of this type are often able but do not perform prominent civil roles and are partially engaged in social activities.

The fourth type can be designated by the term "nihilists." Their characteristic features are a need for knowledge about citizenship, denial of civic values and norms, and low social activity [20]. Among students, the proportion of representatives of this type is low percentage. Nihilists are not adapted to modern conditions of life. The consequence of such a position is often their passivity, sometimes aggressiveness, and ignoring social problems in society.

## 6 Conclusion

The problems of civil society and civic culture are research subjects in many social and human sciences. Distinct aspects of civic culture are studied by political science, law, psychology, sociology, cultural studies, etc. Each science gives its explanation for the development of civic culture. Therefore, it is vital to reduce the knowledge of private sciences into a holistic image, substantiate the socio-philosophical understanding of civil culture, and develop clear theoretical ideas about the essence of civil culture, tools, and means of its formation. Forming a civic culture through education is possible only if it is based on historical experience and an activity approach. The core of this system is civic education.

Without exception, all subjects of the humanitarian cycle have a significant impact on the formation of a culturally highly moral personality of a future specialist. The very content of humanitarian subjects helps to develop business qualities and professional thinking from the standpoint of moral meaning. In addition, in humanities classes, students learn to select the necessary information, speak on the merits of the problem, take part in discussions, think logically, solve problems, and be able to apply the rules of interpersonal communication and etiquette.

The reception of pedagogical influence is organically combined with the daily teaching and educational work in Ukraine. The peculiarity of the pedagogical situation determines the choice of each method. The content of the student's feelings in the new pedagogical environment becomes the basis for new motives for behavior and overcoming their shortcomings, as well as objective physiological and psychological patterns, based on which specific thoughts and feelings arise in person and positive changes in his mind. Methods of pedagogical influence contribute either to the emergence and strengthening of positive forms of behavior of students (constructive methods) or to the suppression of negative ones (techniques-inhibitors). Therefore, a sensible combination of different methods is needed.

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## MODERN CIVIL SOCIETY IN THE ERA OF INFORMATIZATION: POSTMODERN WORLDVIEW

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**Abstract:** The article aims to indicate the role of info-communication technologies in the conversion of the cultural reality of the postmodern era. The elements of pluralism, decentration, fragmentation, and play as the major principles of postmodern culture are revealed. In the context of the virtualization of the socio-cultural space, humanistic values are of great importance. The most demanded form of communication is polylogue. It reflects the transition from traditional communicative interaction to modern. The contemporary development period of civil society, culture, and civilization is characterized by a new stage in the evolution of the nature of the leading social processes. It is distinguished by the desire of a developed industrial society to improve its social structures and institutions. The study talks about the active entry into the community's life with the latest information technologies, which occurred due to the rapid development of electronics. The formation and dissemination of a particular type of mindset and worldview, conceptualized in some philosophical, sociological, literary, and cultural theories, has become widely known under the general name "postmodernism." The need to comprehend these two significant phenomena for the current era determines the subject of this article.

**Keywords:** Civil society, Decentration, Era of informatization, Fragmented culture, Postmodern, Principle of pluralism, Simulacrum space.

### 1 Introduction

The rapid development of mass media, widespread use of computers, construction of global information networks, and the development of virtual reality technologies have led to the fact that ideas about the information society have turned from unclear futurological forecasts into a real cultural state that is subject to close analysis by various sciences [2]. In general, this is because information technologies can no longer be considered as something belonging exclusively to the world of technology.

After all, they have penetrated so deeply into people's lives, woven into the very fabric of everyday life, that it is no longer possible to isolate them from the general worldview and cultural context. A qualitative leap in the information industry strongly indicates the need to analyze the latest technologies through the prism of worldview changes. Postmodern philosophy is one of such paradigm changes that set new worldview coordinates and scientific and methodological guidelines.

Moreover, the latter can provide theoretical analysis and explication of some information technologies and forms of organization of cognitive activity in the post-industrial era [16]. But at the same time, one should also consider that concerning postmodernism, which expresses the worldview of the modern era, it is pretty challenging to establish a critical distance because the researchers are too involved in its realities to finally and impartially evaluate them. Its fundamental incompleteness and poly variance also create difficulties in interpreting postmodernism.

As fundamental for understanding postmodernism, the principle of pluralism directly sets derivative characteristics: fragmentation, decentration, variability, contextuality, uncertainty, irony, and simulacrum. With the help of these categories:

- The principles of classical rationalism and the traditional guidelines of metaphysical thinking were criticized;
- Interpretation of the processes taking place in modern society;
- Development of the foundations of a new worldview will contribute to overcoming the crisis phenomena in culture resulting from the introduction of modernist projects.

### 2 Literature Review

The world has entered a remarkable era of its existence. Technologically developed countries are successfully laying the foundations of a post-industrial society with new information networks [1]. Developed means of communication, which, as tools for changing social reality, qualify for the free dissemination of knowledge. This makes it possible to talk about a qualitatively new type of society in which, in the future, it is conceivable to overcome the dominance of the production of material goods over people. Such a society is not only a new stage in the technical sphere. The person himself is changing in it. There is an increasing individualization of a human as a "spiritually rich and multidimensional personality," able to choose between employment and business, various ways of self-expression and material success [18], to build relationships with people at absolute discretion. These changes increase a person's moral requirements and spiritual and moral responsibility. The revolutionary changes of today are the beginning of a new understanding of the world around us. We are immersed in a unique social atmosphere created by the latest technologies we have chosen. In doing so, we shatter the myth of "mass society" forever. We are becoming a single polystructured nation of dynamic communities linked by information systems.

New technologies and forms of labor, new types of communications, storage and transmission of information, new relationships in human communities, and new forms of interaction of various cultural traditions are tearing a person out of the shackles of standardization of the industrial world [12]. Constant changes in the field of information technology radically renew the sociocultural environment in which human life occurs. This makes it possible to speak of a trend toward the formation in the society of a highly differentiated network of associations – architectural, literary, scientific, and political. Centers of condensation of communication that spontaneously emerge from micro areas of daily practice can develop into autonomous associations of the public [28]. Also, they can stabilize as independent forms of intersubjectivity to the extent that they use the potential of the life world.

In pre-industrial societies, life is a game with nature, and reality for people is the natural world. In industrial communities, people – producers of goods – exist according to the game's rules with the nature they have produced, and the reality for them is the technological world [20]. In a post-industrial society that focuses on services, people play with people, and reality becomes "an exclusively social world, without nature and things, tested more by mutual awareness of people than by external reality. An orientation towards self-realization and enjoyment characterizes the latter type of society, diversification and diversity, consistent with postmodern society since radical pluralism and the inevitable heterogeneity of various paradigms. Cultural postmodernism professes the principle of postmodern culture as a whole since a plurality of conflicting and incompatible criteria characterizes it.

The contours of the current world, which can be labeled as postmodern, are very different from those in the period of modernism [17]. The post-industrial society, unlike the industrial one, aimed at maximum uniformity, standardization, and unification, relies on a fundamentally different technology that seeks to ensure sociocultural diversity. At the same time, the focus on diversity develops into the fundamental basis of a post-industrial society, on which almost all components of the sociocultural system rely.

The reorientation of society from uniformity to diversity has far-reaching consequences. They find themselves in recognizing and promoting equivalence and equivalence, the simultaneous and equal coexistence of various objects, goods, services, professions, architectural styles, social relationships, philosophical positions, scientific opinions, and life projects. As a result, the principle of pluralism becomes characteristic of the

postmodern worldview. In other words, postmodern culture is irreversibly pluralistic. The lack of system and stylistic confusion, the unification within one work of styles and techniques, images and means borrowed from the arsenal of different cultures and eras, the increase in the values of elite culture and the intellectualization of kitsch, the "dissolution" of art in life, retrospective, as a pronounced interest in tradition and "pre-civilized consciousness" – these are some of the specific features of the new forms of artistic activity.

Another leading principle in the postmodern concept is the principle of decentration [30]. This should not be identified with anarchy since it only implies the absence of a single top center, unity of command, and not the lack of power and restraining traditional moral norms. Along with the process of decentration in modern technologically advanced societies, there are also processes of post-industrial integration because otherwise, they would fall apart. The purpose of such integration is the possibility of coordination, which allows the society and its components to function successfully and develop since their originality, originality, individual characteristics, and differences are considered. This state of affairs leads to the fact that the artificial industrial "monolith," externally remaining a kind of integrity, is internally fragmented, crumbling in post-industrialism into many separate components, in which the whole does not dominate its constituent parts.

Such fragmentation affects all, without exception, spheres of life of a modern person, giving him unprecedented freedom of choice. Along with this, and not without the help of television, fragmentation turns into a "clip" consciousness for a modern person, which is characterized by brevity, superficiality, ill-conceived conclusions, a departure from generally significant and constantly reproducing thought patterns, jumping from one idea to another, but sometimes attractiveness and originality [28].

The impact of modern information technologies on a person and society is so huge that any attempts to abstract from them in the study of various areas of the contemporary socio-cultural reality of the late XX – early XXI century can hardly be called reasonable. Postmodernism is characterized by the recognition of the information technology nature of reality and the desire to interpret and express it using its own categories in his work *The State of Postmodernity*. The process of society entering the postmodern period is closely connected with global informatization, which has become essential for modifying the status of knowledge and forming a unique postmodern worldview [19].

In the new reality, a special role belongs to information and electronic means that provide the possibility of obtaining and disseminating information. When describing the features of the information society, modern theories emphasize that the rapid development of information technology changes ideas about space and time, contributing to the emergence of an exceptional information society environment associated with the network organization of space. Information can interact not only with the spiritual world of a person but also with the material, thereby determining its cultural and material existence.

### 3 Materials and Methods

Considering the information on civil society in terms of postmodern philosophy, we will use the concepts of "pluralism," "decentration," and "fragmentation," which define postmodernism and most accurately convey the nature of the cultural processes of the "third-wave" society. It is necessary to consider such a significant, primary factor as transformations in the production sector when analyzing the formation of postmodernity and the events taking place in philosophy, science, art, and politics. The latter is most adequately described by the theory of postindustrial society, which Bell, Riesman, Toffler, Brzezinski, Galbraith, Touraine, and others found it is not material production that comes to the fore but the presentation of information and knowledge. This point underlies

the fact that the postindustrial society is mainly marked as informational [21]. At the same time, the characterization of the community as "informational" or "postindustrial" indicates a somewhat limited section of social reality, mainly associated with science and new information technologies. Hence, it has a technocratic connotation to a certain extent.

This technocracy is overcome by setting a broader sociocultural context, explicated within the framework of the postmodernist paradigm. In particular, analyzing specific sociocultural phenomena in which postmodern and postindustrial theories converge makes sense. They are based on parallels that can be drawn between the postmodern worldview and scientific and technological innovations of recent decades.

With the help of the basic concepts of postmodern philosophy, such as pluralism, decentration, fragmentation, variability, and contextuality, a philosophical study of the most significant processes for the postindustrial world is carried out. The latter include:

- Demassification and disaggregation of production;
- Approval of diversity in the types of equipment, product range, and types of services;
- Moving away from centralized and directive methods of management;
- Rejection of global projects integrating vast masses of people and subordinating them to universal ideas;
- Defragmentation of the social structure of society manifested in the erasure of pronounced boundaries between classes, races, and nationalities;
- The emergence of the so-called "counterculture," which breaks up into many different, to some extent marginalized groups and movements, etc.

At the same time, it is essential for our type of consideration that it is postmodernism, directed against any attempts to absolutize and give a privileged status to any knowledge [3]. It carries an ideology that could protect culture from being suppressed by the power of technology, the threat of turning the information society into a means of suppressing those components of a human being that are associated with free will, choice, individual personal responsibility, spiritual and aesthetic type of comprehension of reality.

In order to consider the legitimacy of frequently cited provisions that fix crisis tendencies in modern culture: the inability to create something new, a complete break with traditions, total nihilism, etc., one should analyze the structural symmetry of such concepts as "virtual reality" and "simulacrum." In essence, they set the foundations for some new ontological projects. Virtual reality technologies, associated with the active spread of new forms of data transmission and perception as they develop, have led to the fact that the concept of "virtual reality" goes beyond the limits of a primarily scientific context and acts as a kind of metaphor for "reality." Even though the term "virtuality" acquired the status of a philosophical category back in medieval scholastic philosophy, its adequate explication is possible with the help of postmodern philosophy. Namely, the "simulacrum" theory developed mainly within poststructuralism's framework.

In the context of Plato's philosophy, a simulacrum should be understood as a copy of a copy that distorts its prototype. Since truth in this paradigm is determined based on the similarity or dissimilarity of a thing with an idea, the simulacrum is qualified as fake and fiction. The non-representative model, on the contrary, refutes the approach that asserts the equivalence of a sign to its referent and makes its ontological status dependent on this correspondence [29]. So, according to Deleuze, a simulacrum is not just a copy of a copy since it calls into question the very concept of a model and a copy. The latter is different because the simulacrum, in contrast to the copy, creates only an external effect of similarity but reveals its true essence in divergence, becoming lasting change and difference. Baudrillard focuses on the social aspects of this phenomenon and puts forward the thesis of the "loss of reality" in the postmodern era.



Reality is being replaced by "hyperreality," in which signs are no longer exchanged for signified but are closed on themselves, thereby turning into a simulacrum [22].

#### 4 Results

Simulacrum not only deconstructs the profound reality of modernity but also begins to act as a total practice of the postmodern world. Accordingly, a simulacrum can be defined as a sign that acquires its existence, creates its reality, and, in essence, has ceased to be a sign but has turned into a virtual object. Based on this, virtual reality is defined as an organized space of simulacrum – "alienated signs," which, unlike copy signs, fix not the similarity but the difference with the referential reality [4]. Based on this understanding, it is believed that, in contrast to actual reality, which expresses integrity, stability, and completeness, virtual reality is a source of difference and diversity, the embodiment of the possibility of creative, generating activity, and is essentially inherent in the very structure of being. The need to create a virtual environment has always been inherent in humans and even embodied in one form or another. Still, only with the development of information and electronic technology and the approval of the postmodern worldview accompanying these processes a person came closest to its implementation, thereby making virtuality entirely accurate.

As for pluralism as a characteristic of postmodernity, it permeates not only the sphere of the economy but, above all, concerns the spiritual component of society and its ideological side [23]. The postmodern society is a society of pluralism of worldviews, the establishment of which, as a fundamental basis, guarantees the equal existence of different worldview positions. The information society creates the necessary conditions for implementing the principle of pluralism as the main postmodern principle.

The embodiment of the principle of decentration expresses the features of the postmodern state of society. It is associated with the absence of a single defining center in modern society around which various sociocultural processes occur. Decentration, covering almost all areas, causes the emergence of the so-called "mosaic society," which changes the "centers of gravity" and is characterized by excellent mobility of its connections and relations. This is facilitated by the widespread dissemination of information and communication technologies, which open access to any information sources and enable users to independently, regardless of the censorship of the center, receive the necessary information.

In postmodern civil society, integration processes, such as economic and info-communicative integration, are also observed, the creation of supranational political structures. However, the integration of the information society excludes the center's dominance; it presupposes a specific coordination, the purpose of which is the development and successful operation of the constituent parts. Consequently, in modern society, we are witnessing inherently postmodern processes of decentration, which are fundamentally different from anarchy since the "decentred parts" do not strive for isolation but, on the contrary, try to carry out joint activities, taking into account individual original characteristics.

Pluralism and decentration confirm the general attitude of postmodernism, associated with rejecting the advantage of the whole about the individual. The same philosophy guides the principle of fragmentation, the content of which is the assertion that the universality of the modern world has ceased to exist. Instead, a considerable number of fragments have appeared, among which it is impossible to single out something absolute. The most characteristic of our day is the sudden popularity of the plural. Today we live by projects, not by one Project. It is important to note that fragmentation has also affected the problem of identifications, which are short-lived since a person of the postmodern era accepts or refuses any elements of his own identity much faster than ever. The "universal" consciousness gives way to the "clip" one; that is, there is a departure from

generally significant and continuously recovering mental operations and their replacement with short, but at the same time, non-standard and wealthy thoughts. In this case, the description of information culture as a "blip culture" is similar.

Today, instead of "long threads of ideas" connected, we come across new images and representations – "blips" of information, which are short messages, announcements, commands, news headlines, excerpts from songs or poems, collages, etc. They are not coordinated and cannot be classified because they have an unusual, vague, confusing shape and must be consistent with established categories.

In modern society, fragmentation is clearly manifested in the formation of a counterculture. The counterculture spread had a tangible impact on rational thinking [5]. As virtues, the counterculture proclaimed immediate pleasure, the free manifestation of impulses, irrational or irrational behavior, the denial of harmonious relationships between people, and a deeper understanding of oneself and others. Consequently, the era of cultural diversity is coming, confirming modern society's fragmentation. The so-called marginal subcultures often come to the fore, leading to a paradoxical situation: a minority, be it national or religious in the sum, becomes the majority. Many believe that the surrounding world is approaching an individual in this situation. Since the latter no longer needs to adapt his individuality to the general idea, a person can fully live his own life. A person is allowed to choose his fragment of the cultural space without taking into account the generally accepted norms and stereotypes established in society. It is noteworthy that the world seems incomplete only to an outside observer, but for someone who is directly included in it and forms part of this fragment, the world appears as something integral. This is explained by the fact that out of all the diversity of reality, a person has access only to his world, fragment, counterculture, and the boundaries he cannot violate if only there is nothing meaningful for a person outside of "his fragment." Modern civil society is replete with tendencies to divide macrosocial formations with established cultural traditions and stereotypes into small shapes with their marginal focus and local culture.

In forming a fragmented culture, an important place is occupied by info-communication technologies that surround modern man everywhere, influencing him pointwise and targeted. In a postmodern society, the distribution of information is not centralized, which is confirmed, for example, by the development of television along the path of increasing the number of channels aimed at different audiences and the introduction of satellite and cable television broadcasting [32]. The emergence of a fragmented culture is primarily facilitated by the global Internet, which not only opens up complete access to any information but also forms a particular type of personality ("fragmented personality") and specific forms of communication. Due to the fragmentation of society into various small groups under the influence of information communications, a person "places himself" in that "fragment" that becomes the most interesting for him. If using television, a person makes a one-way connection with the outside world, and then in network communication, people can carry out interactive communication in real-time [24]. Thus, the current situation demonstrates some ambivalence: on the one hand, a person receives unlimited opportunities for communication and information exchange; on the other hand, this potentially infinite range of possibilities is isolated by a relatively narrow sector ("fragment") that is quite close to a particular person. A person can freely choose the preferred range of interests and forms of communication, taking advantage of the possibility of individual access to information networks.

The cultural situation of postmodernity and the fragmentation of socio-cultural reality are also characterized by tendencies to "blur the lines" between previously opposite entities. For example, not only are the boundaries between classes, races, states, and the virtual and real-world disappearing but attitudes toward gender identity are also changing. For example, the "unisex" style has become a popular style of behavior and self-

expression of a person lately. It may seem that the tendency to "blur the lines" contradicts fragmentation, that these two vectors exclude each other in their multi-directionality and cultural opposition. However, it is not. We are talking only about a different way of organizing reality, excluding many binary oppositions from fact (for example, "truth/false," "thing/sign," "man/woman," "norm/deviation," etc.). The postmodern era, characterized by mosaic, fragmentation, collages, and the presence of many facets and forms, gives rise to similar problems associated with the loss of existence, alienation, and depersonalization of the inner world of a person.

In studying the characteristics of postmodern culture, the problem of the game is of scientific interest. According to modern researchers [6, 10, 13], in postmodern culture, there is a unique attitude to the game, which they interpret as a specific human activity. Thanks to information technologies, the boundaries of the entry of the gaming component into human activity are expanding, and through the freedom of "language games," a postmodern worldview is manifested. Thus, the idea that the "principle of pleasure" should replace the "principle of performance" finds its actual embodiment in postmodern culture. A person must leave the sphere of material production (or alienated labor) and join the world of the game. Labor, turned into a game, into inspiration, can become a means of realizing personal abilities. In "language games," reality is not a system with a clear hierarchy and an imperative center. The game space excludes the presence of privileges concerning any text, and its content is not considered a kind of manifesto claiming to be a universal truth. In postmodern culture, there is an equality of value orientations, monopolizing tendencies, and totalitarianism are not allowed.

Attention to the study of the equivalence of value attitudes leads us to finding spiritual guidelines that would allow a person to live a whole, meaningful life, protecting him from a useless stay in the world of possibilities. A modern person is often compared to a buyer of a giant supermarket, needing clarification on the abundance of goods, needing to remember where the entrance is, and having lost the ability to find the exit.

The postmodern era demonstrates a high level of complexity, above which it is difficult to invent anything. And if so, then we should turn to something established, those simple forms that have been tested by practice and are commensurate with human essence. In this case, we do not insist on discarding everything that demonstrates the complexity and inconsistency of informational modernity and turning our gaze to something archaic. It is impossible to ignore the achievements of modern civilization, which resulted in the emergence of particular cultural patterns, moral stereotypes, aesthetic preferences, communication norms, etc. The task is to establish a straightforward value system in a fragmented game world.

In modern theories devoted to the study of the state of contemporary society and culture, the call to turn to humanistic traditions is increasingly insistent [12]. Considering the place and role of humanism in postmodern culture, scientists associate social development with a change in paradigms, which means changes in the life of society. At the heart of the modernist paradigm is faith in humans and their mind, and the fruit of this paradigm is the industrial revolution. But on the other hand, the postmodernist paradigm demonstrates a skeptical attitude toward humanism.

## 5 Discussion

Publishings pay more attention to the underdevelopment of civil society institutions or their diversification, associated with a pronounced separation of power from citizens, their concerns, and aspirations [8, 11]. Such value judgments, as a rule, exist in a situation where civil society is judged based on specific everyday realities of people's collective and individual life (for example, the availability or inaccessibility of education). The civil society phenomenon is considered in modern socio-humanitarian knowledge. However, we still have to state that the dispute is often around the very definite "civil society" system

and does not go beyond actualizing the essential properties of the phenomenon under study. At the same time, the different existing points of view regarding the specifics of civil society allow us to draw one remarkable conclusion that researchers proceed primarily from the internal systemic properties of civil society itself.

A systematic consideration of the problems of informatization, the development of the information society has significantly influenced the understanding of development principles of the modern world order on the scale of the entire planet and individual states and their associations. However, the information society cannot be considered only from creating and disseminating technologies for collecting, processing, and other actions with information. Technologies radically change the information environment of people's lives, and this raises questions for all forms of human associations about understanding the essence of modern life in terms of publicity, the openness of human activity, and various bodies responsible for establishing the order of behavior and relations of persons (physical, legal), bodies and organizations created at the present stage of historical development. To find answers to these questions, it is necessary to formulate the concepts of information and civil society, to understand their connection with the already existing institutions of the economy, social life, and political and legal systems.

The study of informatization processes and conceptual developments on the issues of the information society, legislation in this area, and the practice of using global information systems (Internet, etc.) allow us to find answers to the questions posed. The information society is a society in which informing functions are implemented – the availability of the necessary information for all users, the storage and dissemination of knowledge, and their use for the progressive development of society. An information society can become such only if it is civil, social, democratic, and legal [7]. As a result, they are strong, with a high degree of self-organization.

In this case, the focus is on the relationship between information processes and the development of civil society. Civil society is proposed to be defined as a state of society capable of reasonably organizing its life. Based on the assimilation of knowledge and experience, there are as few conflicts and contradictions as possible and as many ways as possible to ensure the welfare, justice, and dignity of everyone. The main thing is the emphasis on its semantic purpose both as a scientific category and as practically significant through the term "state," reflecting the degree of self-organization of society as the totality of all its subjects. Following the above conceptual formula for the information society, it must be emphasized that modern civil society cannot be informational, social, democratic, or legal.

Thus, modern society represented by the state, taking into account the abovementioned approach, should be understood as a real-life civil society at the present stage of its development, amenable to analysis and evaluation. In this case, we emphasize that this most complex intersectoral research scientific problem affects only one aspect – the interaction of informatization of society and its progress towards a genuinely civil state.

It is necessary to present its structural and functional system to explain the complexity of solving information problems in modern civil society. At the same time, for legal influence on its development, one should also consider the legal status of actors – subjects, institutions of civil society, forms of their participation in solving the affairs of the community, the state, and their own – the institutions of civil society. Each group of civil society institutions, each existing group of subjects (institutions) of civil society, finds its place in the processes of informatization of the state and uses the Internet to discuss and implement their problems [25]. There are two billion users of the World Wide Web in the world. Information resources and information technologies are increasingly focused on solving the problems of society as a whole and the issues of transferring the activities of the apparatus of public authorities to new technologies.

A particular group of problems relates to information security, the fight against cybercrime. It is necessary to decide how to use the benefits of the Internet for the economy and society, protect against crime [32] and prevent the threat of cybersecurity without stifling future innovation processes. Without denying the importance of transforming the sphere of communication of all structures of society in the conditions of informatization, experts also focus on the fact that not only ordinary criminals use the Internet to commit crimes against the person but against normal relationships between business structures and interaction between states.

The structure of the information environment of each subject includes, in one ratio or another, information about a person, physical or legal, state and municipal body, or any other form of organization that:

- Is created by the subject itself;
- Is acquired (received) by him legally from other subjects with whom he (the issue) enters into certain relations;
- Is perceived by him from official sources of information, the media, the resources of global information systems, and the entire surrounding information sphere;
- Subject to the established rules, it is transferred to other entities or distributed to an indefinite circle of consumers.

These categories of the information environment of the subject are regulated to varying degrees by law, customs, and ethical rules and implement the target settings of the issue in the areas of his activity.

It should be noted that there are also such sources of information that are not structured but are directly accessible and affect the subject's behavior, ideology, and consciousness [9]. They form a person's self-esteem, opinion, perception of the state of the economy, democracy, social environment, justice, culture, friendly, partnership, and family relations that are not documented and do not exist in the form of official or otherwise organized information. This sensory and virtual part of the information environment primarily forms the personality and influences the individual's behavior, interests, mental state, and health. This is precisely that part of the information environment that can be called "no comment" but coming not from the screen but from the general socio-political, economic, and cultural atmosphere. It remains closed to others until a particular time and is in a virtual state. Still, under certain circumstances, it is expressed in the actions of the subject of positive or negative meaning and significance for himself and the structures of civil society [13]. This side of the information environment of the individual, and other issues of society, is still being studied in sociology and psychology but needs to be taken into account in assessing the state of the civil information society.

In postmodern times, marked by the travesty of the very ideas of sociality and statehood, it was not always possible to come to a consensus on the essence and purpose of civil society institutions. Thoughts about them were inextricably linked with the ideology of social justice with ideas about preserving private property and almost always with the possibility of finding mutual understanding with the authorities. In postmodern conditions, civil society is going through hard times.

The concept of postmodernism captures the state of society when it, actually human society, disappears. Time does not stop, people as such do not disappear, but culture disappears [26]. Postmodernism crushes a person's traditional foundations and values as such, by nature, natural and inalienable from the standpoint of law. But, of course, the inertia of postmodernity continues to neutralize the possibility of "fixing" civil society in Russian reality, not in its favor. A vanished community is not only a symbolic complex; it is a society in transition, on the verge of a choice, making a fateful decision for itself. Obviously, in such a social world, the foundations of citizenship and the priorities of civil society also "subside," pervert into open political demagoguery or struggle, replacing the highest value of a

person and the obligations of the state to recognize, preserve and develop this value.

The issue of postmodernity is essential primarily for the historical understanding of the development of various legal institutions, elucidating the consequences of the impact of postmodern concepts on a wide range of elements of the legal system. As you know, the study of postmodernity and its possible manifestations is relevant to many scientific disciplines, namely philosophy, political science, anthropology, and others. Meanwhile, scrupulous attention on the part of researchers of these scientific fields to postmodernity allows us to conclude that the legal sphere has remained within the multifaceted influence of postmodernity. Despite the well-known conservatism that determines the nature of the life of the state and power systems, the legal sphere, being a part of social life, cannot and could not remain outside the postmodern space. And in this sense, the problem of the impact of postmodernity on the law on civil society has long ago overcome the boundaries of only historical reflection and, most likely, needs to be understood precisely in a legal or socio-judicial way. The postmodern is becoming an era that must demonstrate the coincidence or, on the contrary, the discrepancy between the aspirations of society and the civil claims of a person to the highest value in the state.

It is postmodernity that emphasizes the refraction of acute contradictions in a person's life and society, which the law "grabs" and captures in numerous norms and institutions. And if, in other times, "before postmodernity," law primarily solved the problems of preserving and increasing wealth and property, then in the conditions of postmodern influence, it cannot ignore cultural-centric problems related to morality, religiosity, mentality, patriotism, and others. And they seem to be much more severe and large-scale in a person's life, affecting his involvement in social life. These conceptual circumstances are most accurately characterized by a different system of categories called postmodernism. According to some researchers, modern civilization cannot answer such fundamental questions: who is a person, how should he live, and how to release and fruitfully use the creative potential contained in him? Law and its norms provide answers to these and other equally topical questions.

Recognition for a person of the highest value in society and the state was not always unambiguous. As is known, in a situation of ideological determinism of law, such norms acquire a cosmological meaning rather than a legal, legal one. In the postmodern era, there has been a significant transformation of the relationship between man, society, the state, and consequently, man, society, and law.

In the postmodern era, many theoretical constructions predetermined the attitude to the world, man, and culture. Such philosophical, political, and conceptual-legal generalizations became possible, which, under the conditions of a totalitarian ideology, could not arise on their own or were doomed to failure and could not correctly influence the relationship between a person and the state. According to the power of the brightest representative of the postmodern Foucault, people control the world with the help of knowledge, information, and intellectual activity [14]. Describing the "microphysics of power," the thinker identifies three practical power tools. The first is hierarchical surveillance, or the ability of officials to observe everything they control with a single gaze. The second tool is the ability to pass normalizing judgments and punish those who violate the norms. Thus, a person can be negatively assessed and penalized in the categories of time (for being late), activities (for inattention), and behavior (for impoliteness). The third tool uses research to observe people and normalize their judgments. Under the conditions of postmodernism, such concepts become meta-narratives, indicators of the education and organization of civil society, designed to resist the arbitrariness of power, intellectually and organizationally significantly inferior to the will, organization, and intellectual development of actions to glorify and debunk legal decisions. The foundation of any civil society is the opposition to power, not the rejection of law,

morality, morality, philosophy, and politics. The system of law, which survived the times of totalitarianism, and formalization, in the postmodern era, got the opportunity to eliminate those numerous legal norms and institutions that it continued to update and reproduce by inertia.

Meanwhile, exploring the structure of the system of law, the fundamental (basic) law accumulates precisely the principles, i.e., fundamental, meaningful ideological rules [15]. In particular, it combines the principles of justice, legality, humanism, and formal legal equality of participants in legal communication. Indeed, the system of law, still focusing on socially significant principles that are traditional for any society of the post-industrial era, is forced to increasingly differentiated approach to various kinds of ideological rules, making the necessary exceptions to them or recognizing their status quo. It is noteworthy that in the postmodern era, any ideological rules are relatively easily replaced by other rules, which gradually acquire the meanings and meanings of sociocultural codes, metanarratives, and symbols of the time. Postmodernism quickly and tangibly developed unique concepts of signs, allowing for their rebirth, destruction, and aberration [27]. Thus, postmodernism has set as its most important task the collapse of authorities and compensation for the systems of communication and communications that are missing in society. Civil society should be the brightest of these systems, which has overcome inert ideological rules or ideologemes.

## 6 Conclusion

Postmodernism cannot ignore such general humanistic values as freedom, the right to a peaceful life, and the latitude to express one's thoughts and feelings. These are the specific values of each person, outside of which the meaning of his life is lost. They are universal only because they are woven into the life of all people, regardless of belonging to different cultures and ethnic groups.

The issue of humanistic values is closely intertwined with reflections on new ways of establishing mutual understanding at all levels of the socio-cultural space. The formation of the information society brings new forms of dialogue based on pluralism, decentration, multidimensionality, significance, and instability. The transition of modern civil society and culture to the information level of development has brought new concepts and signs of culture based on sign-communicative rationality, such as copy, simulacrum, "trace," communication, and energy. The socio-cultural realities of the information society, among which there is an expansion of the influence of the media on all spheres of human life, encourage researchers to rethink the phenomenon of "dialogue" from the perspective of postmodern concepts. The main form of interaction in modern conditions can be considered a polylogue as a unique communicative process in which many equal subjects participate. Suppose the dialogue provides for the existence of a common theme as a single sense-forming direction. In that case, the polylogue is considered an essential prerequisite for the discussion and is a transformation. In postmodern theories, polylogue is considered a way to establish communicative connections in the conditions of network communication, the birth of a new poly-communicative type of being of a person, constant renewal and change of various structures of sociality with their multi-vector nature, diversity, and uncertainty. Therefore, the polylogue model as a new type of dialogue is the most popular form of communication since it reflects the transition from traditional to modern communicative interaction and involves the participation of many subjects.

Thus, although modern info-communication technologies and postmodern culture form a new image of reality, the problem of preserving general humanistic values has not lost its relevance; it only acquires a new meaning.

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## INNOVATIVE LEARNING TECHNOLOGIES AND THEIR ROLE IN THE EDUCATIONAL PROCESS IN HUMANITIES

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Abstract: Innovative technologies in education in humanities make it possible to regulate learning and direct it in the right direction. Stereotypes in the mass consciousness affecting the habitual way of life, lead to painful phenomena and hinder the renewal of all types of education. The reason for the reluctance of people to accept innovations in modern education lies in the blocking of vital needs for comfort, security, and self-affirmation. Innovative behavior does not imply adaptation; it presupposes the formation of one's individuality and self-development. The teacher must understand that innovative education is a way of educating a pleasant personality. "Ready-made templates" are not suitable for him; constantly improving his intellectual level is essential. A teacher who has got rid of "complexes," psychological barriers, is ready to participate fully in innovative transformations. One of the tasks of the modern humanitarian school is to unlock the potential of all participants in the pedagogical process and to provide them with opportunities to display their creative abilities. The solution to these problems is only possible by implementing the variability of educational approaches, in connection with which various innovative types and educational institutions require deep scientific and practical understanding.

Keywords: Digital generation, e-Learning, Humanities, Information and communication technologies, Innovative learning, Modern education system, Online courses.

### 1 Introduction

Changes in the modern education system are determined mainly by the development of information and communication technologies (ICT). A significant contradiction between the generation of teachers and students characterizes the modern education system [30]. The students in humanities are considered the "digital generation" and "natives of the digital world." Young people are rapidly moving forward, quickly assimilating vast information flows and mastering numerous devices that provide information and communication technologies. On the other hand, the older generation must constantly retrain and adapt to the radically changed working conditions and life. Trends in the development of society show that in today's world, a successful person is a person who can quickly find the necessary information and effectively apply it to solve various problems. In this regard, new training courses are being updated – massive open online courses and educational platforms that are both national and global.

At present, it is possible to speak about several design types. First of all, it is the psychological and pedagogical design of developing educational processes within a specific age interval, creating the conditions for a person to become a valid subject of his own life and activity [29]: in particular, learning – as the development of general methods of activity; formation – as the development of perfect forms of culture; upbringing – as the development of the norms of a hostel in different types of community of people. Next is the socio-pedagogical design of educational institutions and developing educational environments that are adequate to certain types of educational processes [10]; and, most importantly, acceptable to the traditions, way of life, and development prospects of a particular region of the country. Finally, the actual pedagogical design is the construction of developing educational practices, programs, technologies, methods, and means of pedagogical activity. Here, the particular task of design and research activities arises to ensure the transition from traditional education (traditional

schools, traditional management systems, and traditional higher education) to innovative education that implements the general principle of human development. So, in developmental psychology, it is necessary to design age standards (as a specific set of individual abilities of a person in a particular interval of age) and development criteria at different stages of ontogenesis. In development pedagogy, this is the design of developing educational programs that are adequate to age norms, translated into the language of educational technologies – through *What?*, and *How?* this development will take place? In educational practice, this is the design of youth-adult communities in their cultural and activity specificity [27], i.e., the creation of such an educational space where this development can be carried out. In other words, the design of a system of developing and developing education is possible if simultaneously carried out:

- A psychological study of age-normative models of personality development;
- Pedagogical method of educational programs and technologies for implementing these models;
- Co-organization of all participants in the educational process;
- Creation of conditions for achieving new educational goals and means of solving problems development.

In recent years, innovation problems have become firmly established in various branches of scientific knowledge [1]. However, the question of the relationship between innovations and traditions and their role in specific activities and social institutions, particularly in the education system, is still relevant. Therefore, to appeal to the study of this problem, it is necessary to analyze the concept of innovation.

### 2 Literature Review

"Innovation" appears in Latin in the middle of the 17th century. It means the entry of a new into a certain sphere, implantation into it, and the generation of a whole series of changes. This means that innovation is, on the one hand, a process of innovation, implementation, and implementation. But on the other hand, it is an activity to grow innovation into a particular social practice, not an object [12].

In its most complete development, the innovative activity involves a system of interrelated types of work, the totality of which ensures the emergence of genuine innovations. Namely:

- Research activities aimed at obtaining new knowledge about how something can be ("discovery") and about how something can be done ("invention");
- Project activities aimed at developing special, instrumental, and technological knowledge about how, based on scientific knowledge, under given conditions, it is necessary to act to get what can or should be ("innovative project");
- Educational activities aimed at the professional development of subjects of a specific practice, at the formation of each person's knowledge (experience) about what and how they should do for an innovative project to be embodied in practice ("implementation") [28].

In the latest edition of the Frascati Manual, which was adopted in 2007, innovation is defined as "the result of innovative activity, embodied in a new or improved product introduced to the market, a new or improved technological process used in practice, or a new approach to social services" [9]. Guided by these definitions, pedagogical innovation is an innovation introduced into the educational process concerning its organization, content, and means (methods) of teaching. Therefore, any pedagogical innovation introduced into one of the subsystems of education as a system objectively entails, one way or another, the need for changes in other subsystems or the system as a whole. This is how systems work. That is why most

often, concerning education, they discuss the need to introduce a complex of organizational, pedagogical, technical, and methodological innovations.

By tradition, they mean some spiritual or ideal entities (ideas, attitudes, tastes, customs, values) that are passed from one generation to another and which are inherited from previous generations, as well as the established order in behavior and everyday life. In other words, tradition is a noumenal (knowable) and phenomenal (unknowable) formation, represented as spiritual or ideal entities formed in the phylogenesis of the human race and formed in its ontogenesis [13].

Innovations are characteristic of any professional human activity and, therefore, naturally become the subject of study, analysis, and implementation. Innovations do not arise by themselves; they result from scientific research advanced pedagogical experience of individual teachers and entire teams. This process cannot be spontaneous, and it needs to be managed. Concerning the pedagogical process, innovation means introducing something new in the goals, content, methods, and forms of education and upbringing, the organization of joint activities of the teacher and the student. Pedagogical innovation is an innovation in a pedagogical activity that changes the content and technology of training and education to increase their effectiveness [31].

Thus, the innovation process consists of the formation and development of the content and organization of the new. In general, the innovation process is understood as a complex activity for the creation (birth, development), development, use, and dissemination of innovations. There are different types of innovations, depending on how they are divided [21]. In developing educational systems, innovative processes are implemented in the following areas: the formation of new content of education, the development and implementation of new pedagogical technologies, and the creation of new types of educational institutions [15]. In addition, the teaching staff of several educational institutions is engaged in introducing innovations into practice, which have already become the history of pedagogical thought – for example, alternative educational systems of the early twentieth century Montessori, Steiner. At the moment, various pedagogical innovations are used in humanities education. It depends, first of all, on the traditions and status of the institution. Nevertheless, the following most characteristic innovative technologies can be distinguished.

### 3 Materials and Methods

The methodological basis of the article is institutional, activity, and process approaches, thanks to which education is viewed as an institution of reproduction and transmission of culture, characterized by the use of traditional and innovative means of education and upbringing [5, 11, 32]. The purpose of the study is to identify the place and role of traditions and innovations in the educational process among the humanities of modern higher education, analyzing the domestic and foreign experience of its work using research materials of philosophers, teachers, managers, and practitioners.

Based on a comparative analysis of the methods and forms of teaching used in various modern education systems [2], the most popular ones, such as computer technologies, are identified. Furthermore, the historical approach to analyzing the development of learning processes using computer technology has made it possible to identify several stages characterized by qualitative changes in the forms and methods of *e*-education, as shown in the proposed article.

Education is the leading institution for the reproduction and transmission of culture in the broadest sense of the word [3]. Innovations in education do not affect the very essence of it as a social institution; it remains an institution for the reproduction and transmission of culture. However, with the formation of the information society, the methods (technologies) of reproduction and transmission of culture are being transformed, and the roles

and functions of the participants in the educational process – the teacher and the student – are radically changing. The teacher is no longer a monopoly carrier and translator of knowledge. Instead, he becomes a navigator in a vast ocean of knowledge and information, an assistant in building his students' educational trajectory, self-determination, and choice of a program and teaching methods. The teacher becomes one of the principal consultants in developing skills in working with information, its search, and systematization. Moreover, at various stages of the educational process, students explicitly or implicitly interact with its new subjects: facilitators (specialists in teaching methods) and invigilators (experts in knowledge assessment), which were not in the traditional education system. All the functions they performed in formal education were concentrated in the hands of one person – the teacher [14].

What is "*innovative education*" today? – This is an education capable of self-development that creates conditions for the full development of all its participants; hence the central thesis; innovative education is developing and developing education.

What is "*innovative educational technology*"? – It is a complex of three interrelated components:

- A. Modern content, which is transmitted to students, involves more than just the development of subject knowledge but the development of competencies that are adequate to modern business practice. Therefore, this content should be well structured and presented in multimedia educational materials transmitted using modern means of communication.
- B. Modern teaching methods are active methods of developing competencies based on students' interaction and involvement in the learning process, and not just on passive perception of the material.
- C. A modern learning infrastructure, including information, technological, organizational, and communication components, allows you to use distance learning effectively.

### 4 Results

At the moment, various pedagogical innovations are used in education. Of course, it depends, first of all, on the traditions and status of the institution. Nevertheless, the following most characteristic innovative technologies can be distinguished:

1. The introduction of ICT into the content of the educational process implies the integration of various subject areas with informatics [16]. Therefore, it is essential to realize the emerging trend of the process of informatization: from the development of initial information about computer science by students to the use of computer software in the study of general education subjects and then to the saturation of the structure and content of education with elements of computer science, the implementation of a radical restructuring of the entire educational process based on the use of information technology. As a result, new information technologies appear in the methodological system, and graduates of educational institutions are prepared to develop new information technologies in their future work. This direction is implemented through the inclusion in the curriculum of new subjects aimed at studying informatics and ICT. Experience in the use of ICT has shown that:

- The information environment of an open educational institution, which includes various forms of distance education, significantly increases the motivation of students to study subject disciplines, especially using the project method [4];
- Informatization of education is attractive for the student in that the psychological stress of academic communication is removed by moving from the subjective relationship "teacher-student" to the most objective relationship "student-computer-teacher," the efficiency of student work increases, the share of creative work increases, the opportunity in obtaining additional education in a subject within the walls of an educational institution, and the future,



a purposeful choice of a profession, a prestigious job is realized [17];

- The informatization of teaching is attractive to the teacher because it allows him to increase the productivity of his work and increases the general information culture of the teacher.

2. Personally-oriented technologies in teaching the subject "Personally-oriented technologies" put the student's personality at the center of the entire educational system, providing comfortable, conflict-free, and safe conditions for his development and realizing his natural potential. A person's nature in this technology is not only a subject but also a priority subject; it is the end of the educational system and not a means to some abstract end. It manifests itself in developing students of individual educational programs under their capabilities and needs [20].

3. Information and analytical support of the educational process and quality management of students' education. Using such innovative technology as an information-analytical method of managing the quality of teaching allows you to objectively and impartially track the development of each student individually, in class, in parallel, university as a whole over time. With some modification, it can become an indispensable tool in preparing class-generalizing control, studying the state of teaching any subject of the curriculum, and studying the system of work of a single teacher.

4. Monitoring of intellectual development. Analysis and diagnostics of the quality of education of each student by testing and plotting progress dynamics.

5. Educational technologies are the leading mechanism for forming a modern student. Therefore, it is an essential factor in today's learning environment. It is implemented in the form of involving students in additional forms of personality development: participation in cultural events on national traditions, theater, centers for student's creativity, etc.

6. Didactic technologies as a condition for the development of the educational process of an educational institution. Here, both already-known and proven techniques, as well as new ones, can be implemented. These are independent work with the help of a textbook, playing, designing and defending projects, learning with the help of audiovisual technical means, the "consultant" system, group, differentiated teaching methods – the "small group" system, etc. Usually, various combinations of these techniques are used in practice.

7. Psychological and pedagogical support for the introduction of innovative technologies in the educational process of an educational institution. Scientific and pedagogical substantiation of the use of specific innovations is supposed. Their analysis at methodological councils, seminars, and consultations with leading experts in this field [22]. Thus, the experience of modern higher education has the most comprehensive arsenal of application of pedagogical innovations in the learning process. However, the effectiveness of their application depends on the established traditions in a general education institution, the ability of the teaching staff to perceive these innovations, and the material and technical base of the institution.

Many teachers use modern technologies and innovative teaching methods to achieve learning outcomes. These methods include active and interactive forms used in teaching. Active ones provide an active position of the student concerning the teacher and those who receive education with him. During lessons with their use, textbooks, notebooks, and computers are used, that is, individual tools used for teaching. Thanks to interactive methods, there is a practical assimilation of knowledge in cooperation with other students. These methods belong to collective forms of learning, during which a group of students works on the material being studied, while each is responsible for the work done. Interactive methods contribute to the qualitative assimilation of new material. They belong to:

- Exercises that are creative;
- Group tasks;
- Educational, role-playing, business games, imitation;
- Lessons-excursions;
- Lessons-meetings with creative people and specialists;
- Classes aimed at creative development – lessons-performances, making films, publishing newspapers;
- The use of video materials, the internet, and visualization;
- Solving complex issues and problems using the methods of "decision tree" and "brainstorming."

Therefore, innovative teaching methods in humanities contribute to student's cognitive interest development; they are taught to systematize and generalize the material being studied to discuss and debate. Furthermore, by comprehending and processing the acquired knowledge, students receive the skills to apply them in practice and gain communication experience [18]. Undoubtedly, innovative teaching methods have advantages over traditional ones because they contribute to the student's development and teach him independence in cognition and decision-making.

## 5 Discussion

The entry of digital technologies into the educational environment complements the traditional education system and significantly expands the channels for transmitting knowledge and culture. Although we are talking about global educational platforms, being digital necessitates the use of digital technologies in education, primarily in the context of self-learning based on online courses, among which massive open online courses occupy a significant place.

Massive open online courses are a learning technology that allows you to organize training for up to several tens of thousands of people at the same time [5]. In recent years, online learning has become one of the central topics of discussion at most scientific and practical conferences and forums dedicated to education problems. Online education is education acquired based on electronic resources that are used in their development, promotion, and application of them. Specific types of electronic resources for online education can be electronic educational platforms, electronic publications, massive open online courses, etc., the creation of which requires special training of its creators.

Various techniques and technologies are used at each stage of the creation, distribution, and application of an open online course. So, for example, at the initial stages of creating an online course, it is necessary to create content that is created by a specialist representing a specific branch of scientific knowledge [21]. This content can be a video lecture, project, program, text, video sequence, slide, etc. The choice of one form of content presentation is determined by the teacher (the author of the online course) together with the screenwriter, methodologist, editor, cameraman (if we are talking about preparing a video), and an information technology specialist. Such a number of specialists involved in the creation of an online course indicates that revolutionary changes are taking place in the education system, which will radically transform the relationship between the teacher and the student, which is characteristic of traditional learning based on the personal contact of participants in the educational process. The poly subjectivity of the creator and consumer of an online course is one of the essential features of such education.

The initial stage of creating an online course is costly in terms of time and resources involved. However, the subsequent stages of its distribution and use pay off these costs often, both in economic and social terms. The effectiveness of an online course increases if the purpose of its creation, the content and structure, the teaching technologies used, the target audience, the student assessment system, and the place and role of the course in the overall educational program are clearly defined from the outset. The undoubted advantage of online courses is the speed of their promotion, the prompt communication of students between

themselves and the system administrator, the possibility of repeated visits to the same page, etc.

Efficiency in promoting ideas (scientific, educational) in the education and science market enhances the university's competitive capabilities and strengthens its position in domestic and world rankings. Issues related to both the creation and distribution and the use of online courses related to innovative pedagogy are included in the subject area of emerging new scientific knowledge – educational innovation [24].

In the narrow sense, educational innovation is a science that develops theoretical, methodological, and applied problems of education renewal [6]. Its subject area is "the harmonization of modern and traditional forms of education in a single universal process of continuous education." This is because the word knowledge increasingly hides the concept of information, which implies a message that is not necessarily reflected by human consciousness as an act of mental activity of a particular subject, transmitted and received through electronic communication. Such knowledge-information is detached from its subject and can exist outside of a specific learning system. It is incredibly mobile and quickly becomes obsolete or gets lost in a vast flow of information, losing its classical disciplinary (objective) form. But, on the other hand, having lost its subject form, such knowledge can be used in a different context and in another branch of science and thus be embodied in a new information education. In addition to the country's prestige, online learning, as noted above, can save money by involving many people in the educational process. The creation of a national platform for open education provides students with the opportunity to choose an online course.

Such cooperation in creating a single national online education platform is unique. In foreign countries, the creation of educational platforms, as a rule, is initiated by the universities and leading professors (Coursera, USA) or occurs as a result of the union of the university and, as was the case in China, Alibaba (Chinese online courses), the world's largest online sales company. There are several educational platforms in the Spanish-speaking world (Miríada X., Platzi), but none is the official online education platform for a single country

The task of the Ministry of Education and Science should ensure that open education courses replace poorly taught disciplines [26]. We are talking about replacing only some classes in higher education with online education. "Live" teaching, based on the personal contact of the teacher and the student, can only be partially replaced (for a specific discipline or module). Personal contact is the basis of the traditional education system, which, having been formed over a long history of human development, has accumulated a considerable arsenal of pedagogical techniques and tools that are still used today. So, for example, in the presence of a Europeanized system and structure of training specialists in higher education in China, the teaching methods remain the same as in the time of Confucius, the main of which is "learn and repeat." The Chinese model of cognition appeals more to the concrete rather than the universal by studying objects. The classical texts of the Confucian canon do not offer any general moral laws or abstract principles; instead, they give specific examples of cases and actions.

The sources of the specifics of the cognitive process that has formed in national educational systems should be sought in the originality of the consciousness of the people (ethnos) since it is not just an attribute of a person but the very way of his being, which makes it possible to give human life an expedient character [23]. The consciousness of a person binds into a single whole all the disparate diversity of empirical experience and develops immanent mechanisms of his cognitive activity, close and understandable to him. These mechanisms are based on a person's physiological and psychological capabilities, which provide the process of thinking, reproduction, and reproduction of knowledge. The structure of these mechanisms includes perception, transcending, reflection, emotions, feelings, and the

whole range of human qualities present in cognitive activity and modern man.

Human consciousness results from the long evolution of a person and his great work to transform the world around him and himself. It reflects the features of life, the natural and climatic environment, and the originality of the perception of the outside world, which subsequently determine the specifics of social institutions (including education) created by man. In education, as the foremost institution of reproduction and transmission of culture, traditional methods and means of education and upbringing are exceptionally stable since they were formed and live in the course of direct interaction between teacher and student, i.e., in real human communication, which is likely to be partially replaced by technology [25].

In recent years, the term *e-learning* has become widespread in the West, meaning the process of learning in electronic form via the Internet. The method of transition from traditional education to computer-based education has been developing over the past two decades. Since the advent of huge archives presented on machine-readable media, more and more often, the idea has arisen to use this material for educational purposes. In global terms, this became possible with the development of the Internet, which ensured the transfer of the necessary amount of data from one part of the world to another, the freedom of network users to communicate online, the ability to post information on the Internet sites, making it available to everyone.

The stages of development of learning with the use of computer technologies in the literature are presented as follows: CD-ROM-based courses; distance learning; Global and National Open Education Platforms; *e-learning*. Each subsequent stage, as it were, includes the previous one. For example, courses based on CD-ROM historically appeared the very first.

The main advantages of *e-learning*, in our opinion, are:

- Innovative idea;
- Concentration of electronic thematic information;
- Thought out from a methodological point of view, high-quality training;
- Providing many interactive features;
- Ease of use;
- Availability.

The disadvantages of the courses are:

- Limited educational material;
- A lot of time spent on its creation;
- The impossibility of modification.

Distance learning emerging a little later, it provided a different educational approach, devoid of the above disadvantages, and had many additional features [7]. The basis of the educational process in distance learning was the purposeful and controlled intensive independent work of the student, who could study in a convenient place, according to an individual schedule, having a set of special teaching aids and an agreed possibility of contact with the teacher in the learning process. The advantages of distance learning, from the point of view of students, include the following:

- Flexibility of the training schedule;
- The opportunity to study according to an individual plan;
- An objective and independent methodology for assessing knowledge;
- The opportunity to consult with the teacher during the training;
- Relative cheapness.

For teachers, this form of education meant the emergence of additional channels for supplying educational material to students. It became possible to train more students with the same workload.

One of the qualitatively new phenomena in the world of education, dictated by the characteristics of the information society, has become the widespread use of massive open online courses. Education experts named massive available online courses among the 30 most promising trends in its development until 2028.

One of the first substantial online courses, "Assessing Practices, Principles, and Strategies," was held in 2008. Its author is Daniel Hickey, a professor at Indiana University; Google funded the development and training of 500 students. The course results were generally recognized as positive, although a significant exclusion of students was noted. It is enough to access the Internet and speak English properly to access such courses.

Most massive open online courses are based on video lectures. The educational material in them can be supplemented with slides with the necessary information, infographics, tests, creative tasks, and ordinary tasks and exercises. In addition, the material may be accompanied by links to additional sources, including films, magazine articles, related video lectures, and more [8]. As a rule, these courses are accompanied by technical collaboration tools – the studied material can be discussed with other students, for example, in a chat. The duration of online courses is different – from 5 weeks or more. Upon completion of the course, for an additional fee, you can pass certification and receive a document stating that the course has been successfully mastered. Obtaining a certificate at the end of the course is optional for access. You can study course materials for free for your self-development.

According to education analysts, universities have begun to accept students' results of studies on online platforms [6]. For example, consider online courses offered on various educational platforms:

1) Platform: URSERA

*Online course "Development of Questionnaires for Social Research"*

This course is helpful for all researchers using various questionnaires in their work. The acquired knowledge and skills in compiling questionnaires, working with them, and analyzing the results obtained have a broad scope, whether sociology, psychology, criminology, medicine, political science, journalism, marketing, etc. The course duration is 6 weeks.

*Pedagogical course "The Science of Happiness"*

This course was prepared by Dacher Keltner, a professor of Psychology at the University of Berkeley (California). During the training, students will be introduced to a unique approach based on the basic principles of positive psychology. An analysis will be made of the results obtained in the course of real research covering the fields of psychology, neuroscience, evolutionary biology, etc. Course participants will learn in practice to apply one or another "happiness strategy" and can easily track their progress along this path. The course duration is 10 weeks.

*Online course "The ability of the body to quickly restore mental strength after trauma, disaster, and war: global perspectives"*

The course is entirely devoted to the problems of post-traumatic disorder, ways to overcome it, adaptation, and issues of stress tolerance. In addition, students will get acquainted with the world literature corresponding to the problems, basic concepts, and results of modern research. The course materials include biographies of people who experienced childhood abuse, wars, terrorist attacks, and disasters of various origins. The course duration is 6 weeks.

*Online course "Behavioral medicine: the key to better health"*

Having mastered this course, the student will learn about the basic concepts and principles of behavioral medicine, get acquainted with their practical application, learn the main tools used in behavioral medicine, and gain valuable skills in working

with "virtual patient scenarios." The author of the course is Anne H. Berman, Associate Professor of Clinical Psychology at Karolinska Institute. The course duration is 5 weeks.

2) Platform: EDX

*Online course "Methods of teaching students of medical specialties"*

This course is designed to help expand and deepen knowledge and improve the skills of teaching disciplines to students of medical specialties. It is designed for a trained student and is aimed primarily at educators involved in the education of medical students, medical staff, and specialists who develop relevant educational materials. The course duration is 10 weeks.

It is not surprising that with all its apparent advantages, distance learning has quickly gained immense popularity in the educational world. Gradually, large corporations also became interested in it, rightly assuming that this form of training would allow them quickly, relatively inexpensively, qualitatively, and, most importantly, improve the level of training of their personnel on the job [9]. Recently, the degree of involvement of the Internet in education, the number of online courses, their topics, various methods of implementation, and the general focus as a whole have led to the emergence of a more capacious term, "e-learning."

The European Commission defines *e-learning* as the use of new multimedia and Internet technologies to improve the quality of learning by enhancing access to resources and services and remote knowledge sharing and collaboration. So, *e-learning* today is a learning process that uses interactive electronic means of delivering information.

## 6 Conclusion

Summing up, innovations in education are associated with the informatization of society and the educational process technologization. First, they transform the means and methods of teaching, the system of communication between participants in the educational process, and expand the channels of reproduction and transmission of information, excluding the personal participation of a person from these processes. Thanks to them, it became possible to distance learning, the use of online courses, and the creation of educational platforms representing electronic courses. At the same time, the means and methods of education based on the psychological and physiological processes of human thinking, such as perception, understanding, memorization, and reflection, are stable. Therefore, they are necessary for any educational system, both traditional and innovative, as is the use of conventional teaching methods in modern higher education.

Innovations in education are introduced into the educational process concerning its organization, content, and means (methods) of teaching. Traditions in education are stable ideal or spiritual formations (ideas, principles, methods) that are passed from one generation to another and are used in the educational process.

One of the main innovations in modern education is *e-learning*, its main types, and forms that transform the traditional system of teacher-student relationships and learning tools. Among the innovative learning tools, regarded as a new revolution in education, are global and national educational platforms and massive open online courses. An essential feature of online courses is the poly subjectivity of its creator and consumer, based on the combination of scientific and technological knowledge.

Along with electronic teaching aids, the higher education system also uses traditional ones, focused on the peculiarities of thinking and cognitive activity of a person formed by previous generations. A harmonious combination of classic and innovative teaching aids is the basis for providing quality education.

Successful online learning requires a high level of self-organization and ICT competence. It is necessary to teach the course, participants, and how to work in it precisely, as well as the analysis of the effectiveness of self-learning, homework, tests, etc. Specialists of different levels should participate in the design of materials for online courses and their creation. It is advisable to pay special attention to the design of tests and other measuring materials to evaluate training effectiveness.

It is imperative to record high-quality video and train modern teachers to work in front of the camera. Thus, e-learning is not a temporary hobby. Therefore, it is necessary today to take care of the urgent solution to these problems and create inter-university Centers for evaluating the quality of e-learning courses and teacher training and drawing the attention of companies operating in the information technology market to the need to develop integrated informatization of universities' creation of network educational structures.

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**Primary Paper Section: A**

**Secondary Paper Section: AM, IN**

## NICKNAMES AS THE MEANS OF VIRTUAL LINGUISTIC PERSONALITY SELF-PRESENTATION IN THE GERMAN LANGUAGE VIRTUAL DISCOURSE

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**Abstract:** In the research, the definitions of virtual Discourse were studied, and on the ground of it the authors' own approach towards this notion was introduced, the view on the linguistic Personality in different branches of science in general and in cognitive linguistics was identified, and probable structural components of the linguistic Personality were outlined. The definitions of the virtual linguistic Personality were clarified, its specific features were highlighted, and the authors' description of this phenomenon was provided. The research methods were selected, nicknames or network names of the profiles on dating websites used by the authors (both men and women) while getting registered on dating sites were analysed. The Nickname is treated as the phenomenon of nomination, an essential means of virtual linguistic self-presentation and Internet personality image building. Having analysed empirical data, the authors divided nicknames into 18 thematic groups. The groups comprise different constituents, reflecting other preferences and tastes of men and women, their thesaurus and creativity. The frequency of using nicknames created by men and women was thoroughly studied: it was defined and, in general, the most popular are the nominations based on food names. They prevail in men and point at taste preferences and the importance of food in general. The next group comprises nicknames-zoonyms and nicknames-phytonyms, which last in women. The third most frequent is nicknames – proper names, which emphasises serious intentions and non-concealment of oneself. The least appealing for self-presentation is the nicknames-allusions. Nicknames were also classified according to their grammar structure (derivation pattern) and spelling. In general, positive self-presentation prevails, caused by the author's intentions to attract the broadest range of users and find their partners.

**Keywords:** Intention, Linguistic Personality, Nicknames, Self-presentation, Virtual discourse, Virtual linguistic Personality.

### 1 Introduction

Anthropocentric orientation of world science in the modern period has resulted in an increased interest of scholars in cognition, as the languages reflect social phenomena and a person as the creator and user of language and a person's inner world. That is why a language speaker – a linguistic personality – has become an object of research in linguistics and psychology, philosophy, ethics, economics, sociology, ethnography, as interests of all human sciences intersect in it. Linguistic Personality is a crosscutting idea that penetrates all aspects of language study and at the same time eliminates borders between disciplines that study a person, as it is impossible to study a person not considering their language [15]. Moreover, scholars focus on the new information and communication space – the Internet, which is progressing rapidly in the 21st century and fills all spheres of life influencing development, structure, characteristics, and nature of the modern linguistic Personality. The virtual space is a highly multifaceted environment, so we focused on the dating website that aims to virtual search and virtual selection of a partner.

The topicality of the research consists in the necessity to study the linguistic personality behaviour in the web-space, in particular, on the dating websites, as the phenomenon of the user self-presentation on such sites and their virtual image building belong to relevant issues of cognitive linguistics, which have not been sufficiently researched.

The research aims to analyse nicknames as the virtual linguistic personality self-presentation in the German language virtual discourse. To achieve the aim, the following objectives were set:

- To study theoretical prerequisites for Analysis of the virtual Discourse, linguistic Personality and virtual linguistic Personality;

- To develop a methodological algorithm of the research;
- To analyse peculiarities of the virtual linguistic personality self-presentation on the German dating website, both men and women, singling out certain groups of nicknames, taking into account their meanings and the frequency of using handles with similar semantic meaning and classify nicknames according to their grammar structure (derivation pattern) and spelling.

### 2 Literature Review

In the 21st century, it is not easy to imagine a person without a computer, Internet, mobile phone that dominates in not only business relations but also plays an essential role in the personal life of everyone. Nobody is surprised at virtual dating and virtual partner selection.

Our study focuses on the Internet discourse as part of mass media discourse. There is no unanimous opinion on the name of such type of discourse yet. According to Ovcharova [28], the notions of “computer discourse,” “electronic discourse – e-discourse” and “Internet discourse” are identical, as all of them are communication actions connected with information sharing and communication among people using computers. We believe that the notion of “e-discourse” is broader than the notion of “computer discourse,” but they subordinate to “virtual discourse” in its general sense.

Having analysed the definitions of “the virtual discourse” provided by Kompantseva [20] and Lutovinova [22], we consider it to be both: a set of texts devoted to the topic of partner selection and a communication event which has its differential features, such as this event is distant, prolonged in time, the interaction takes place between the subject of selection as an addresser and a potential addressee, the one who is attracted by the addresser's appeal which has the form of direct speech, but as discourse process results in the texts characterised by both intra- and extra-textual (under the influence of discourse process) peculiarities [29, p. 59].

The linguistic personality studies in virtual discourse are also relevant as the person is the primary measure and the main sense of the virtual world [22]. This notion has acquired particular importance in recent decades due to the rapid development of different branches of linguistics [3, 13]. According to Bogin, the linguistic Personality is characterised not by what they know about the language but by what they can do with it [3]. In psychology, Personality is understood as a relatively stable organisation of motivational tendencies that appear in biological stimuli and social and physical environment and conditions [15]. Shakhovskiy adds the emotional component and explains that there is a person behind any text, and a person is an emotional creature [32]. The Ukrainian psycholinguist Zasiiekina considers the linguistic Personality to be a set of cognitive, emotional and motivational features that provides linguistic competence of a person as a representative of certain national cultural space [39, p. 83, 40].

The linguistic Personality is understood as a set of texts created both by people and about them on the Internet. Still, the linguistic Personality's adequate features may be found in the texts produced by them, especially in spontaneous non-formal communication [36, p. 40]. According to Kompantseva, the virtual linguistic Personality is a discourse version of the linguistic Personality presented in the language space of the Web, fixed in communication strategies and tactics of communication, types of linguistic behaviour, meanings of hypertext fragments, lingua-cognitive peculiarities of thesaurus [20, p. 21–22].

It is indisputable that participants of the virtual Discourse can never be sure about who their communication partners are in reality [22, p. 86]. The actual “Self” of a person in a virtual

space is always vague and uncertain, as there is a potential possibility for "multiple identity" in it [18, p. 190]. In scientific works on psychology, four types of identity image on the Internet have been described: (1) authentic identity image; (2) idealised identity image; (3) false identity; (4) game online self-presentation [4, 42]. Gaining a better position to receive social approval by others might be the intention underlying untrue statements of the users in the context of mate choice on online dating sites [41]. The reliability of the information provided during self-presentation depends on a person's psychological well-being [33].

Under the condition of inner welfare, the addresser can give accurate, truthful information and cannot change their image. The general feeling of inner trouble is a good reason that predetermines the distortion of the Self-image in the process of self-presentation, so the person depressed by this feeling often uses the possibility to change their image for communication on the Internet [34]. Insensitive online groups nicknames play a significant role in identity construction [35].

To sum up, we consider the virtual linguistic Personality to be an integrated phenomenon in which certain individual features are in the foreground, which, in our case, is caused by intentions (self-characteristics and the influence on the addressee) that may be expressed verbally (a nickname, a text) and non-verbally (for example, a profile picture) and are constructed due to anonymity which is ensured by virtual reality thus providing freedom of action and freedom of expression.

The virtual linguistic personality self-presentation is at the centre of attention of Ukrainian and foreign scholars. In particular, the differences between potential virtual and non-virtual partners are studied [6], the phenomenon of information distortion (both personal and of other people) by authors in the profiles of online dating, which often seem to be promising, can be traced [5], the possible gender differences in self-presentation on the dating sites by the representatives of LGBTQ communities of southern countries are highlighted [26], as well as the connection of gender differences of self-presentation and hyper-personal effects with evolutionary and psychological theories [2], and also in-/ability of the respondents to guess unique features of users correctly just reading their nicknames [21]. In the overview of the references devoted to the study of handles as the means of virtual Personality self-presentation on the German dating sites, we have found very few works on this topic.

### 3 Materials and Methods

Considering the interdisciplinary character of the phenomenon of the virtual linguistic personality self-presentation, to solve the tasks outlined, we have utilised the procedure which is based on the integrated approach aimed at studying the Personality and different manifestations of their being via a thorough study of linguistic activity and language as the main component of person's consciousness [40]. As the research material is the nicknames selected by the method of continuous sampling on the German dating site FlirtCafe, the users of which have the purpose of finding a partner for communication, flirtation, short-term or long-term relations, or to create families.

The dating site FlirtCafe provides its users with free trial registration for ten days, which allows them to see their guest list, other users' profiles, the photo gallery, and sent them messages in the chat. After this trial period, accessible functions are restricted to looking through only one profile a day. To register, the user has to provide the username, e-mail, password, date of birth, postcode, sex, the sex of a would-be partner. The site allows registration for people aged from 16 to 60 and older. After registration, it is obligatory to provide detailed personal information (general information, describing oneself, outlining the requirements for a potential partner, one's appearance, a favourite pastime, autobiography). The field where the user provides their Nickname is obligatory, and the Nickname will be visible with the avatar (if there is any) and with a quick search even to unregistered users (see Figure 1).



Figure 1 – German dating site: registration page

There are also options for searching with the help of nicknames. To do it, you need to enter some letters, and in the Search field, you will see all aliases containing this combination of letters (see Figure 2).



Figure 2 – German dating site: the focus is on the Nickname Search field

The third option is about the more detailed search in which one can limit the search with such criteria as the sex, age, (marital) status (single, in relations, divorced, widow/widower), country, region (with the help of the postcode), a photo is a must.

So, the authors' intentions while creating their nicknames are of particular interest as they are a name card, a constituent of the linguistic Personality, a linguistic mask on the Internet and one of the significant possibilities for virtual self-nomination and self-presentation at the pre-communication level. The Nickname may be treated as a source of symbolic information about its author, as a person's projection of their way of perceiving life, thoughts and feelings, inner world, subjective experience [33, p. 413].

The integrated methodology has been used at this level: *the interpretation analysis* – to interpret meanings of the nicknames used by people on dating websites to nominate themselves for self-presentation and *intent analysis* – to find out their intentions. The intention is the addresser's meaningful or intuitive thought (purpose), which defines the inner speech program and the way to actualise it [14]. To ensure the validity of the results and to determine the frequency of specific linguistic units' usage by virtual linguistic personalities – the site's users, both men and women, and for quantitative comparative characteristics, we have utilised *the method of quantitative calculations*. Empirical research suggested analysing nicknames of 320 users, 160 women and 160 men, who were trying to find partners using the dating site. The empirical data were collected during the year 2019. While selecting the items, special attention was paid to the sex, and the age of users was limited (from 20 to 65 years old).

### 4 Results and Discussion

The specific features of the virtual linguistic Personality are the Nickname or pseudonym, for which characters of movies or books, names of social roles, as well as animals or plants may be used; the profile picture, which is a variety of visual images of a



personality, for example, graphics, photos and images of objects; profile as personal information about users, their virtual status in the Internet space [38]. There is an opinion that a nickname is some sobriquet. Still, we support the view of the German scholar Schlobinski [31], who claims that there is some difference between a nickname and a sobriquet, as the Nickname is chosen or created by the person on their own, it is an informal anthroponym and the means of self-presentation and self-identification [16]. In contrast, an alias is created by other people. It is a reflection of the attitude towards a person for who this sobriquet is made. Nicknames play more than just a referential function. From the perspective of their creator's intentions, nicknames point at some critical aspects for themselves and others [31].

In this process, an important role is played by motivational factors and people system of values as it influences the choice of the way to present oneself and build a person's image. It is also considered that the Nickname as a virtual projection of oneself affects not only other users but also the authors themselves as they adapt to the role chosen and try to fully comply with it [33]. At the same time, either concealment of the true Self or, vice versa, more disclosure than in honest communication. The specificity of linguistic presentation depends on such factors as the level of education, culture, intentions and the aim outlined. From the psychological point of view, the virtual linguistic personality characteristics are connected with self-expression. "A person-image" in virtual reality is practically identical to the symbol created by them [37]; therefore, the importance of a nickname for potential partners increases; they either open the user's profile to get acquainted with other information or skip it. The Nickname plays the role of a predictor regarding the unique features and the strategy to choose a partner. It may influence the motivation to contact the user whose Nickname has evoked interest [1].

Based on the classification and description of nicknames by Schlobinski [31], Kaziaba [16, 17], Gkoutzourelas [11], Lutovinova [22] and Knatz [19] and the Analysis of empirical data (320 profiles: 160 of men and 160 of women), taking into account the motivation of users registered on the dating site FlirtCafe [7], we have singled out certain groups, which are shown in Table 1:

Table 1: Groups of the users of the dating site nicknames

No.	The name of the group	Number of men out of 160 in (%)	Number of women out of 160 in (%)
1.	Nicknames based on the names of food	14,38	9,38
2.	Nicknames-zoonyms and -phytonyms	7,5	13,75
3.	Proper Names	7,5	8,12
4.	Nicknames that reflect psychological-emotional state of communicators	3,12	8,12
5.	Based on the names of means of transport	2,5	11,25
6.	Neologisms	8,75	5
7.	Precedent names	7,5	4,38
8.	Nicknames based on the names of professions	7,5	3,75
9.	Nicknames-self-assessment	5	6,25
10.	Leetspeak-names	3,75	6,88
11.	"Incognito"-nicknames	4,38	5,63
12.	Shifts /clusters	3,75	5
13.	Nicknames with sexual content	5,63	2,5
14.	Nicknames based on geographical names	3,12	3,75
15.	Nicknames based on the names of musical instruments / sounds	5	0,63
16.	Alliterations	2,5	3,12
17.	Ironic names	2,5	1,88
18.	Allusions	2,5	1,25

We have found out that the biggest group is the one comprising (see Figure 3) *nicknames based on the names of food* (11,88%), 14,38% of men and 9,38% of women have chosen such names in the Internet.



Figure 3 – Filling percentages (%) of the nickname groups (men and women altogether)

We have singled out two categories: a) *names of sweets / dishes: men* – *schockokecks, Zwiebelkuchen, bonbons, duplopraline, Edel Marzipan88, Mozartkugel 77, sauerbraten, kirschtorte, Rippchen7539, Schweinebraten, schnitzell, Currywurst1963, weisswurst, Obstsalat03; women* – *Icecream070190, schokolade21, Nougatpraline10, Kecksi, Marzipanerin, marzipan25, moztartkugel, schnitzel12584, nutella60, Sachertorte XL; b) names of drinks: men* – *piccolo2602, sekt19, sekt, Rotwein80, BIER, Gurkenschnaps, ruebenschnaps, glühwein72; women* – *weissweinsüß, Glühwein-Hmbg, Cherrybrandy, TequiLaaa89, brandyheiß*. Nicknames with such content may contribute to the assumption that "I-corporeal" play the major role for such people, as according to Maslow, human needs concerning biological survival have to be met at the lowest level before any needs at a higher-level start actualizing [24]. We believe that such nicknames represent people's taste preferences which are often related to character or certain psychological problems. It is also noteworthy that only alcoholic drinks were chosen for nicknames and there is a German saying "Sag mir was du trinkst, und ich sage dir, wer du bist!" [10], and some modern mobile apps (for example, ONCE) can provide interpretation of character of such nicknames authors.

Quite a big number of users present themselves using *nicknames-zoonyms and -phytonyms* (11,25%), namely, 7,5% of men and 13,75% of women: *men* – *tigerle57, Koalabär88, Falke585, ahorn34, zeder, buche74, bambus\_22, bambusman, Löwenzahn80, silbertanne* – men associate themselves mainly with hardwood, and even with fir, which, on the one hand, is a symbol of fertility, on the other hand – a symbol of strength [9]; *women* – *Redrose19, Rosenduft, Löwenzahn, SonnenblumeBrB, Linde53, Kornblume54, ruhrstute, Camomile79, Fauleziege, affe1979, maihenne, Haißischvieh, Kuschelmaus*. Some women choose flowers, which illustrates their elegance and beauty. Concerning animals, the gender aspect should be emphasized as men look for names of animals of masculine gender (*derbär38 – bear, wolf79 – wolf, etc.*), but women look for the names of animals of feminine gender (*stute84 – mare84, milkkuh– milk-cow, etc.*). It is also interesting that diminutives are mainly used by women (*Häschen68, \_Kätzchen\_*), who try not only to show tender in such a way, but also may try to "reduce" their age or weight a bit. This group also contains some nicknames based on the names of insects – *entonyms*, for example, *PapillonBlonde (franz. butterfly), mariposa (span. butterfly), Farfalla (ital. butterfly)* – their authors associate themselves with the lightness of a butterfly, and there is one nickname based on the name of a



bird – *ornithonym*: *Falke585*, which is considered to be a magical bird because of its clairvoyance, speed and greatness, but at the same type it is a predator [23], so, the user with such name may have both positive and negative features. As such nicknames are rather rare, we do not classify them into a separate group, but include them into the group of zoonyms. The nickname *Fauleziege* is of special interest – on the one hand, it may be ironic or self-assessment, on the other hand, laziness is not a positive feature, but some people think that a person should idle about for a while, as only then creative and brilliant ideas can be born. Some scholars claim that lazy people have higher intellectual development [25], so the author of this nickname wants to attract attention and encourage others to consider and look through her profile to understand what is hidden behind it. Nicknames of this group are the most popular among women comparing to other groups.

7,81% of users choose *proper names* for their nicknames (women – 8,12%, men – 7,5%), divided into the following subgroups: a) *orthonyms*: *men* – *georg1951*, *Tobias*, *Timur79*, *Daniel14*; *women* – *SvEnJa.*, *Olga1234*, *Dagmar*, *Anna*, *Anastasia*, *Katrin77*; b) *abbreviations or diminutive forms*: *men* – *Charly* (of German Karl), *Andi* (of German Andreas); *women* – *Antje@* (contracted of Anna), *milla2005* (of German Camilla); c) *derived from proper names or surnames*: *men* – *sebastian*, *groeg*, *saerdna70*, *NoTnA*, *Oinotna*; *women* – *Eiramesor* (Rosemarie), *einafets01* (Stefanie01), *alesig* (Gisela), *agleh\_56* (*helga\_56*), *nirak* (Karin). Users with such nicknames may be characterised as, on the one hand, too selfish, who strive to show that they have no fears, courageous and do not depend on other people's opinions, they do not conceal their authentic Self and are interested in serious relations; on the other hand, nicknames created based on their real names may point at insufficiently developed imagination or lack of desire to waste time on making up something more interesting [22, p. 101]. Besides, proper names in a pet form hint at some flirtation, declare friendly attitude, desire to informally communicate with other people, perhaps, the intention to look younger.

7,19% of addressers have chosen nicknames that reflect *psychological emotional state of communicators*, and they may be divided into two categories: a) *men* – *reneeinsam*, *Hopeless*, *allein*, *lonely22*, *Unzufriedener*; *women* – *QhopelessQ*, *einsamesherz73*, *einsamesgirl24*, *Glückslos1*, *THE SINGLEST*. Their authors are deep in sad thoughts and feel lonely and unhappy. With the help of the Internet, they hope to find consolation, moral support, and a positive attitude, but such online names may also negatively impact finding a partner. Still, the Nickname will be remembered for a long time. There is another category, in which the addresser is satisfied with life and themselves – *men* – *Lucky-H1*, *Sunnyboy22001*, *DerschöneRob*, *LukDerBeste*, *derGlückliche90*; *women* – *happyich*, *HappyStern*, *happyness1234*, *Happyhippo88*, *glückskäfer*, *Glückskleo09*, *vielglück40*, *Glück2010* – and seems to encourage to make a choice: *look, how lucky I am, life will be good and straightforward with me!* It should be emphasised that women (8,12%) like such nicknames more than men (3,12%). It is related to the fact that women are more emotional than men and often show their emotions, unlike men who try to hide them or disguise them.

The groups that contain *nicknames based on means of transport* (6,88%) and *neologisms* (6,86%) are almost equal in capacity, but there is considerable gender variety within each one. 11,25% of *women* created their nicknames based on means of transport: *mazdamx56*, *opelastra308*, *audiline28*, *Skoda61*, *Mazdaspeed*, *Testlababy*, *Toyotababy*, *VW-schnuffly1987*, *Miss.Opel*, *hondagirly123*, *porschebiene*, *Porsche\_Lady*, *opelmaus26*, *BMW-Luder*, *bmw*, *Engel*, *bmwbunny500*, *Ladybenz*, *Hammerbraut2803* and only 2,5% of men have chosen such nicknames, which points to the fact that a car is a means of men travel, nothing more. But women often use the name of a car in their nicknames and combine it with some lexical units with evaluative connotations, which help attract attention to the author of such a nickname. In general, such nicknames reflect either the author's ownership of a specific make of cars or her

positive attitude to such a make. Besides, it also reflects self-sufficiency and independence.

*Nicknames-neologisms* show a different tendency, they prevail in men – 8,5%, in women – 5%: *men* – *cyberpunk74*, *Cyberpirat82* – innovations with the component *cyber-* have become especially popular after the Internet penetrated into all spheres of human activity, they point at a person, object or thing, related to the Internet; *hacker10*, *OmegaMann53* (*Omega-male53*), *Alphamann58* (*Alfa-male58*), *spamer86* (*spammer86*), *bot22*, *Blockbuster*, *dampfer46* (*the one who smokes electronic cigarettes46*), *Offliner* (*the one who does not use the Internet purposefully*), *Infotainer* (*a presenter of the entertaining and information TV show at the same time*), *Youngtimer65* (*young* (*car*)65), *einweichei88* (a mild man); *women* – *Surferin*, *digitalspionin* (*digital spy*), *cybercat86*, *Cyberspace*, *cyberwomen30*, *It-girl87* – the users with such nicknames want to show not only their creativity, but also their skills in the spheres of the Internet and IT using which they try to find partners. But sometimes it may have a negative effect as such people may be addicted.

5,94% of users get registered with *the nicknames based on the precedent names* (8,75% of men and 5% of women): *men* – *Apollo06* – everyone knows the name of the ancient Greek God Apollo and the author considers himself to be sun-faced and want to emphasize it; *Amor37* – this man tries to show that it is difficult to resist him, he strikes right in the heart and evokes the feeling of love; *Achilleus* – the user presents himself as a hero of the Trojan war, as a symbol of courage and beauty, but such people often have their weak place – the so-called “Achilleus heel”; *Narziss42* – a handsome son of the river God Cephissus, who fell in love with his own reflection in the mirror, nowadays – a self-centered person who choosing such a nickname emphasizes that to confirm their own existence and their own value they always need somebody else [30]; *Welfenkoenig* (*German noble dynasty*) – such nickname points out at the fact that this person tries to appear powerful and domineering as such features were typical of welfs and they have to impact a potential partner; *Oedipus*, *edip22* – a hero of the myth about Oedipus who by coincidence killed his father and married his mother and then having learnt about the tragedy of the situation put out his eyes (a man who has chosen such a nickname may be characterised as the one who loves his parents very much – the Oedipal Complex, known in psychology) [8]; *women* – *afrodita* – a Greek Goddess of beauty, happy love and marriage who surpasses all goddesses in beauty and gracefulness, and the author of this nickname tries to show it; *Venera38* – in Roman mythology – a Goddess of gardens, beauty and love – the person with such nickname highlights such features; *Fortunal* – a Goddess of happiness and luck – it should mean that her partner will be lucky with her; *junona\_22* – an ancient Italian supreme Goddess, a wife of Jupiter, a patroness of motherhood – the implicit meaning here is that this woman will be a perfect wife and mother. In some cases, it is difficult to find out what exactly the linguistic Personality wants to express by their Nickname, for example, *Elektra40*, *elektra26* – there is Electra Complex, studied by psychology [8]. Electra was excessively obsessed with her father, and it may have caused the choice of such Nickname, or a woman may associate herself with the main heroine of the film *Elektra* (2005), who works as an assassin. Still, when overwhelmed with feelings, she refuses to carry out her task and starts to rescue the target. The Nickname *angelamerkel997* is also interesting from the point of view of its interpretation – either the person tries to resemble the Chancellor of Germany, who is a powerful woman both in her own country and in the world, by demonstrating her authoritative character, or the user wants to highlight her average looks.

The *nicknames based on professions* and *nicknames-self-assessment* comprise the same number of items – 5,63% accordingly. But the first group is two times more popular with *men* – 7,5%: *derNotarzt*, *Dein\_Lehrer*, *Lehrerdom*, *lehrer434*, *ABCLehrer*, *TheJudge70*, *Prokurist*, *Trabifahrer*, *Ingenieur*, *fotjournalist*, *maler83*, *Chirurgie*; *women* (3,75%) – *Putzfrau*, *friseur*, *Zahnärztin*, *tierärztin*, *Frauenärztin*, *StrengeLehrerin*.

The examples illustrate that women are not entirely eager to use words of occupations for their nicknames, but for men, their profession or trade may play the most crucial role in their lives. They identify themselves as personalities that realise themselves primarily in their career, which they implicitly express. Self-assessment is important for both sexes almost equally, 6,25% of women got registered under such nicknames: *TRAUMFRAU\_*, *Barbiepüppchen*, *leckere21*, *zauberhaft1967*, *misscharming*, *sternchen079*, *sommenschein9*, *Biest0881*, *theBEST* and 5% of men: *Grobian*, *Schizo83*, *granitmann*, *Romantic*, *mr\_nice21*, *Feuerdrache76*, *thehero*, *SugarboyXXL*. The authors try to stand out, mentioning certain features of character or appearance that may appeal to the addressee. Moreover, men use such nicknames as *snapper* and *schiso* as if they challenge somebody, while positive self-assessment prevails in women.

5,31% of users have used *Leetspeak-names* [27]: men (3,75%) – *r3ptile* (*reptile*), *Schl4ppohr* (*Schlappohr*), *n00b1234* (*noob1234*), *Sum1* (*someone*), *tomm42* (*tomman*), *TR4UMPRINZ*; women (6,88%) – *H3RZ\_DAM3* (*HERZ\_DAME*), *b4bylein*, *sw33tb4by*, *s0mmenschein*, *Ang3lgr81*, *chaos\_3ngel*, *Feuer3ngel*, *Sw33TL0L4*, *SW33T-LADY*, *sw33th3@rt*, *Laura\_b4by*. The users with such names either want to be secretive as it is not always easy to decipher those streams of letters and figures or show the hacker jargon they wish to appeal to potential partners.

5% of users have used *the incognito-nicknames*: men (4,38) – *IncognitoX*, *mr.incognito*, *Incognito666*, *guyincognito42*, *MmisterXx*, *misterxyz*, *wmxxl*; women (5,63) – *MissisX*, *xyzamazone*, *mrs.xyz*, *xyztreff*, *xxxincognitoxxx*, *Geheim1991*, *geheimnis01*, *unbekannte*. Anonymity is the priority for such people, besides, mystery always attracts attention, most people try to solve it. The group of *shifts / clusters* is a bit smaller: men – 4,38%: (3,75%) – *ichliebedich515*, *wobistdu1962*, *ichbinallein89*, *IchFindeDich*, *Ichsuchedich09*, *IchBinFürDichDa*; women (5%) – *baldistsommer*, *oOLoveIsBlindOo*, *ichbinallein12*, *ichwarteaufDich*, *ichliebedich12*, *ichbincool12*, *takeaway*, *HabnochHoffnung* – they often render the real meaning and intentions, for example, *I am waiting for you, take me away, I will find you, etc.* Some users (4,07%) have created *the nicknames with sexual content*: men (5,63%) – *sven21sex*, *eros53*, *ladiesMan26*, *derVerführer*, *loveland08*, *lovelyboy*, *lets gobaby*, *sexyTiggerRene*, *sexyboy82*; women (2,5%) – *AphrodisiaK*, *viagra67*, *sexysandy82*, *sexymiss*. The users with such nicknames know exactly what is important for them in relations and in such a way they advertise their intentions and give the possibilities to the addressees to make up their minds about the choice much quicker. The nicknames of people who were looking for an intimate partner have not been analysed.

The group of *the nicknames based on geographical names* is not very big – 3,44%: men (3,12%) – *greece77*, *deutscher*, *sueddeutscher81*, *russe199*; women (3,75%) – *hessenhenne*, *zugspitze*, *spreewald83*, *Spreenixe*, *bodenseemieze*, *Bodenseehexe1955*. Such nicknames mainly point to where the person is from or where the users live now. Women may also add attributes to make the Nickname more attractive – *Hessenhen*, *Bodensee pussy*, etc.

*The nicknames based on the names of musical instruments* are not very popular (2,81%): men – *Flöte*, *tamtam1990*, *Bassposaune*, *Gitarre68*, *MrSaxophon*, *orgel44*, *Dr\_Trommel*, *DerFagottist* – these nicknames often illustrate that people either make music or like a particular musical instrument; women – *gitarre123* – only one woman was identified. Other groups which are relatively small are: *alliterations* (2,81% – men – *buzzfuzz01*, *quack-nick30*, *JayJay*; women – *CocaCola23*, *MaayMaay*, *OoLuluoO*); *ironic names* (2,19% – men – the Nickname *CowboyXL* and his profile picture show that this man is tall, stocky and a bit inclined to corpulence; *eagle0027* – the hairdo (seen in the picture) of this character in the style of “hedgehog” boosted the idea for such a nickname; *Wackeldackel33* – dachshund nodding its head, it means that such person is characterised by non-stability and variability; women – *superviagra67*, *Schnapsdrossel*, *corona\_80*); *allusions*

(1,88% – men – *hermannwings* – the cheap airlines Germanwings of the Lufthansa group are rather famous; *Indeego* – the person associates her-/himself with indigo children who are considered to have high IQ, telepathic abilities, extreme sensitivity; *Xeros* – the combination of the words Xerox (the name of the company) and Eros – the Greek God of love, *Alexus* – Alex+Lexus; women – *OnENightLonG* – the modification of a common notion ONS – Onenightstand – i.e. a person looks for not for entertainment but for long-term relations, and it is presupposed by the Nickname; *alphafrau60* – derived from *Alphamann* – a strong woman, a leader.

In addition to the classification according to the semantic criterion, several groups based on the morphological or syntactic structure of nicknames and orthography of graphostylistics have been singled out [31]. Some most popular examples are given in Table 2.

Table 2: Classification of nicknames based on their structure and orthography

Morphological classification	
Part of Speech	
- noun	- <i>Zwiebelkuchen</i> , <i>Chirurg</i> , <i>Flöte</i> , <i>Trabifahrer</i> , <i>Putzfrau</i> , <i>friseur</i> , <i>zugspitze</i>
- adjective	- <i>zauberhaft1967</i> , <i>leckere21</i>
- adverb	- <i>allein</i> , <i>lonely22</i>
Word-building	
- monosyllabic	- <i>BIER</i> , <i>sekt_</i>
- polysyllabic	- <i>Marzipanerin</i> , <i>Surferin</i> , <i>friseur</i> , <i>Ingenieur</i>
• composite	• <i>bodenseemieze</i> , <i>granitmann</i> , <i>fotjournalist</i> , <i>silbertanne</i> , <i>Gurkenschnaps</i> , <i>sauerbraten</i>
• reduplication	• <i>JayJay</i> , <i>MaayMaay</i>
• universion	• <i>StrengelLehrerin</i> , <i>derbär38</i> , <i>takeaway</i> , <i>IchBinFürDichDa</i>
• derivation	• <i>tiglerle57</i> , <i>Hüschchen68</i> , <i>Kätzchen_</i>
• diminutive	• <i>Alexus</i> , <i>Xeros</i>
• blend	
Syntactic classification	
Syntactic criterion	
- word-combination	- <i>DerschöneRob</i>
- sentence	- <i>IchFindeDich</i> , <i>lets gobaby</i> , <i>ichwarteaufDich</i>
Orthography/Graphostylistics	
Spelling	
- all letters are small	- <i>weisswurst</i> , <i>bodenseemieze</i> , <i>reneeinsam</i>
- all letters are capital	- <i>BIER</i> , <i>THESINGLEST</i>
- with small and capital letters	- <i>derNotarzt</i> , <i>Bassposaune</i>
- capital letter at the beginning	- <i>groeG</i>
- capital letter at the end	- <i>AphrodisiaK</i>
- capital letter at the beginning and at the end	- <i>ichwarteaufDich</i> , <i>derVerführer</i>
- spelt as one word	
- punctuation mark	- <i>Miss.Opel</i>
- figures	- <i>Amor37</i> , <i>Narziss42</i> , <i>zauberhaft1967</i> , <i>ichbincool12</i>
- symbols	- <i>Antje@</i> , <i>junona_22</i> , <i>corona_80</i>
- Leetspeak	- <i>sw33tb4by</i> , <i>H3RZ_DAM3_</i>

Numerous graphic peculiarities that occur in different groups function as means of attraction. Communication is carried out in writing first, so spelling and structure perform the same function as gestures and mimics play in general contact [11]. Moreover, the spelling of nicknames helps define how extraordinary the person is.

It is noteworthy that the interpretation of nicknames is always somewhat subjective as its whole meaning is known only to its author. Besides, there are cases when the user doesn't think over the importance of the Nickname, name themselves by intuition or association, having liked the Nickname on some different site which may negatively influence the process of achieving their aims as the Nickname is their name card and confirmation of the (virtual) identity chosen by them as part of media self-presentation [12].

## 5 Conclusion

So, the Internet has changed all spheres of life. Such important phenomenon as searching and choosing the partner is carried out virtually more and more often. The virtual discourse has its peculiar features; it is both a set of texts devoted to one topic (in our research, it is the topic of choosing a partner) and a communication event with its differential features. Research into discourse (virtual one in particular) confirms linguistic Personality's importance for the communication process. Linguistic Personality on the Internet is a set of texts created by and about them. Virtual linguistic Personality is a discursive version of linguistic Personality presented in the language space of the Internet, an integrated phenomenon in which certain individual features are in the foreground which is caused by intentions in our case study (self-characteristics and influence on the addressee), which may be expressed verbally and non-verbally (for example, a profile picture) and be constructed according to author's desire due to anonymity provided by virtual reality which also includes freedom of action and freedom of expression – the Nickname as a specific feature of linguistic personality functions as the means of linguistic self-presentation. One may find the symbolic projection of a real personality with their experience, psychological components, and problems. The Analysis of empirical data made it possible to single out 18 semantic groups of nicknames and classify them according to their structure and spelling. The most popular options for nicknames creation are:

- Food names.
- Zoonyms and phytonyms.
- Proper names.
- The psychological and emotional state of communicators.
- Terms of means of transport and neologisms.

The different number of items in the groups illustrates different tastes and preferences of men and women, their thesaurus, creativity and intentions of the authors to present themselves to the best advantage as positive self-presentation prevails.

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**Primary Paper Section: A**

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## MODERN SYSTEM OF LEGAL REGULATION AND PERSONNEL MANAGEMENT IN ENSURING PUBLIC-PRIVATE PARTNERSHIPS: UNDER THE PROFESSIONAL HIGHER EDUCATION DOMAIN

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**Abstract:** The article aims to consider the practices and contemporary trends in the development of human resources by optimizing the mechanisms of public-private partnership in the domain of higher education: legal regulation, improvement of legal provision, updating the state personnel policy in the strategy of continuing education, integrating the use of state and industry resources to create conditions, introduce productive models and structures of cooperation employers and educational institutions of all levels in the practical training of young professionals to meet the staffing needs of the development of economic sectors. Sufficient interaction between the labor market and the education system is realized when the shared interests of all its issues are conjoined, in particular through the orientation of the personnel management of companies towards the preliminary technology in the selection of personnel, as well as the development, together with professional higher education institutions, of in-house corporate training and retraining of personnel.

**Keywords:** Higher education, Legal grounds, Legal principles, Personnel management, Public administration, Public law, Public-private partnership, Public legal relations, Subjects of educational activity.

### 1 Introduction

The history of modern democratic society's development can rightly be viewed through the prism of the story of relations between the state and residents, which have continuously been updated in times of crisis. Modern realities in the context of foreign policy and foreign economic destabilization against the backdrop of the development of the global financial crisis exacerbate the problematic field of cooperation between the state and public institutions and business structures to search for new opportunities for implementing state, legal and social policies aimed at improving the level and quality of life of the population [36].

The strategy and prospects for the country's development determine that innovation-oriented development is a worthy alternative to evolution based on the high quality of labor potential [2]. The labor market, which does not meet modern requirements, becomes a brake on the economy's modernization and technological renewal due to the need for more high-quality human resources capable of providing an innovative development path.

Currently, the primary conditions for market development have been formed – state, public, and private institutions are functioning. However, the emergence of many investors (independent economic entities) necessitated their interaction to solve socially significant problems, especially regarding those spheres of society that determine the country's innovative development. When forming a national innovation system, such a policy should ensure the unification of the efforts of government authorities at all levels, organizations in the scientific and technical sphere, and the business sector in the interests of accelerated use of the achievements of science and technology to implement the country's strategic national priorities [7].

Successful interaction between business, government, and society is becoming an essential condition for the normal functioning of the country's economy [3]. In world practice, to attract business with long-term financing of public infrastructure

and its management, and education [18] has recently begun to be included in this area, public-private partnerships (PPP) are used. Therefore, the need for an in-depth study of social and labor relations in the field of education from the point of view of public-private partnerships, as well as the definition and justification of an effective mechanism for the implementation of public-private partnerships in the context of the transformation of the educational process determine the relevance of the research topic.

### 2 Literature Review

The term "public-private partnership" is in demand in the Law, arose in Great Britain in the 90s of the 20th century, and has a long history. For example, the implementation of many large-scale projects in the construction, reconstruction, and development of state facilities of industrial and socio-cultural significance in foreign countries since the time of the Roman Empire has been carried out precisely according to the concession principle [5].

In world science and practice, there is no single unambiguous definition of public-private partnerships (PPP) and a generally recognized systemic understanding of this mechanism. Different countries use different variations of the exact mechanism, which makes it difficult to formulate a single concept of public-private partnership. The international best practice is constantly refining the idea of PPP. The general regulation of PPP implementation processes at the international level is carried out with the help of advisory documents. Among them are the records of the European Commission on the regional policy of the European Union, "Guidelines for successful public-private partnerships" and "Green paper on public-private partnerships and local legislation on public contracts and concessions," a document of the United Nations Economic Commission in Europe "Guidelines on Public-Private Partnerships for Infrastructure Development" and others. These documents represent a development of the international understanding of PPP, claiming to be international best practice standards.

Public-private partnership, according to Ukrainian legislation, is a cooperation between the state of Ukraine, the Autonomous Republic of Crimea, territorial communities represented by the relevant state bodies and local governments (state partners) and legal entities, except for state and communal enterprises, or individual entrepreneurs (private partners), which is carried out based on an agreement in the manner prescribed by this Law and other legislative acts [4].

On the side of a private partner in an agreement concluded within the framework of a public-private partnership, there may be several persons who, under this Law, may be private partners. Such persons shall be jointly and severally liable for the obligations stipulated by the agreement, which is concluded within the framework of a public-private partnership. Features of participation on the side of a private partner of several persons in tenders for determining a private partner for the implementation of public-private partnerships are determined by the Cabinet of Ministers of Ukraine [4].

An analysis of modern foreign experience in public-private partnerships has shown that each of the G7 countries has its priority sector for their use. Thus, in the USA, such an industry is roads (32 out of 36 projects); in the UK – healthcare (123 out of 352 projects) and education (113 out of 352 projects); in Germany – education (24 out of 56 projects); in Italy, Canada and France – healthcare [37]. In Ukraine, unlike foreign countries, public-private partnership is still forming and developing relevant regulatory, financial, and organizational instruments [6]. However, it should be noted that the traditions of relations between government and business also have deep

roots. Their genesis can be traced to different periods of historical development: the construction of railways, telegraph lines, the development of public utilities, and other infrastructure.

In a general sense, public-private partnerships can be interpreted as any mutually beneficial forms of interaction between the state and business, which in the country, taking into account political, social, and economic features, have intensified throughout the development of the entire national space (i) at the initiative of the state; (ii) in times of crisis for the country [12].

In education, as a sphere of meeting the personnel needs of the development of economic sectors, at present, the resource of public-private partnership is not updated to the extent that it is in demand in the conditions of integration of the state and non-state sectors of personnel training, aimed at the most efficient use of human resources in ensuring strategic interests of both the state and business.

The study of scientific ideas presented in research allows us to assert that in the pedagogical sense, professional training means creating conditions for the practical saturation of the university's educational process with certain content, forms, and methods that adequately reflect certain aspects and levels of professional training [17]. Consequently, the professional training of a future professional at university can act as a factor that contains certain conditions [34] and contributes to the implementation of pedagogical actions, processes, and phenomena in the context of the formation of professional competencies of a future specialist [19]. In this case, the professional training of a future expert in higher education appears as a driving force, a basis in which various opportunities are concentrated for effectively implementing the process of forming professional competencies.

Work with personnel, like other management areas, has its legal framework. They act as a regulator of relations between all categories of workers, are one of the central guarantees of observance of the rights of citizens, provide an opportunity to increase work efficiency, and contribute to the fight against subjectivism and arbitrariness. Sources of law are acts in which the norms of the relevant branch of law are expressed. Types in the following sequence classify them: consultation, ordinance, decree, resolution, code, charter, regulation, decision, or by types of bodies from which normative acts come – state authorities and state administration bodies.

Personnel management is an activity aimed at the effective use of the potential of employees to achieve their goals and is carried out in organizations, institutions, and enterprises [1]. This is a complex impact on individual employees and teams, aimed at providing optimal and most effective conditions for the initiative, creative and conscious work to achieve high final results.

The personnel management mechanism is a complex dynamic process, including personnel formation, application, and stabilization. All components of the personnel management mechanism are determined by changes in the external and internal environment, changes in goals, objectives, and working conditions. Personnel management pursues the following purpose – the formation, development, improvement, and implementation with the most excellent efficiency of the personnel potential of an enterprise or organization, providing the enterprise with interest in work and well-trained employees.

There are several aspects in personnel management: organizational and economic – covers issues related to planning the composition, number of employees, use of working time, and material incentives; technical and technological – reflects the level of development of production, production conditions, technologies, features of the use of equipment; legal – covers issues of compliance with current labor legislation; socio-psychological – covers the problems of psychological and social support for personnel management, the use of socio-psychological techniques and procedures in practical activities; pedagogical – covers the issues of personnel education. Finally,

legal support of the personnel management system is the execution, observance, and application of the norms of laws governing labor relations development and approval of regulatory acts of an organizational, economic, corporate, and administrative nature [15].

Legal regulation of work with personnel is reflected in state [9], administrative, and labor law. Personnel issues are resolved more widely in administrative and labor law than in state law. Depending on the legal force of labor regulations, they are divided into statutes, decrees, and by-laws.

The cardinal political and economic transformations associated with a market economy led to the state's cessation of being the only and leading "supplier" and "consumer" of professional personnel. The new realities demanded, among many priority tasks, including the search for and formation of new forms and mechanisms of interaction between the education sector and the production sector (business), taking into account the interests and capabilities of all interested parties (state, business, society).

The main areas for implementing interaction between the higher education system and employers are improving education content, studying the labor market, staffing the educational process, providing logistical support, attracting additional financial resources, and a quality control system for education.

The rules for the participation of associations of employers in the development and implementation of state policy in the field of higher education fix the procedure for their involvement in the development of state educational standards and state requirements for additional professional educational programs, the formation of lists of areas of training (specialties) of higher education and state accreditation of educational institutions of professional education [13].

### 3 Materials and Methods

This study considers domestic and global trends in the state and public regulation of the effectiveness of the introduction of public-private partnerships in the higher education system. The general theoretical basis of the study is modern approaches to forming a mechanism for introducing public-private partnerships of universities at the regional level. Social policy issues and regions' development occupy a prominent place in domestic science.

The following tasks are solved taking into account the relevance of the research topic:

- To explore and clarify the theoretical and methodological foundations for the formation and development of public-private partnerships in the system of professional training, retraining, and advanced training of personnel;
- Reveal the features of the use of public-private partnership in the system of professional training, retraining, and advanced training of personnel, determine its promising forms;
- To identify the main factors influencing the public-private partnership in the system of professional training, retraining, and advanced training of personnel in the market of educational services at the regional level;
- Analyze the possibilities of using public-private partnerships in the system of professional training, and retraining;
- Training and advanced training of personnel in the context of the development of the labor market and the market of educational services in the region;
- Substantiate the strategy and main directions for the formation of an effective mechanism of public-private partnership in the system of professional training, retraining, and advanced training of personnel and develop indicators for assessing the activities of universities [13].

The object of the study is public-private partnerships in the system of professional training, retraining, and advanced personnel training.

The subject of the study is a set of organizational and economic relations that arise in forming the mechanism of public-private partnership in the system of professional training, retraining, and advanced personnel training.

This work's theoretical and methodological basis was the fundamental works of leading domestic and foreign scientists on the theory and practice of public-private partnerships in educational management [2, 7, 13, 30]. The study explored ideas, concepts, and methodological approaches to the external and internal evaluation of educational activities [18, 34] and university management.

This work is based on the dialectical method, which predetermines the study of objective legal, managerial, and economic laws, patterns, phenomena, and procedures in their constant development and interconnection. In the work process, methods of empirical research were used (observation, comparison, grouping, detailing, generalization, and modeling).

#### 4 Results

Currently, there is a task of practical implementation of the planned strategic goals: the creation, testing, and widespread implementation of specific organizational, institutional, and methodological tools that increase the effectiveness of public-private partnerships in the field of professional higher education. Furthermore, it is to develop cooperation between business and education that structures are being created to coordinate and regulate this process. The main driving force behind this type of cooperation is the mutual interest of the state, higher education, and business in the training of professional personnel in terms of the level of knowledge and professional competencies that meet the challenges of the innovative modern economy [17].

Definitely, the state's leading positions in this cooperation are still occupied by defining its main directions, fixing priority tasks, and corresponding guarantees. It is the state that must create the conditions under which investments in the field of professional higher education would become profitable for business, and targeted state support is also needed for initiatives by both employers and educational institutions aimed at creating mechanisms for public and state management of the higher education system and evaluating its effectiveness.

As for the system of professional higher education regulated by the public sector, the profits of education institutions from cooperation with the business sector are apparent. Moreover, one of the most important indicators of the effectiveness of educational institutions is the proportion of graduates of educational institutions of full-time professional education who were employed within one year after graduation in their specialty (profession) in their total number. Thus, the state fixes as a priority strategic task of education precisely ensuring the demand for graduates, as well as the conformity of the structure and quality of training of specialists with the needs of the labor market.

Among the main reasons for the low level of employment of graduates is the imbalance of supply and demand in the labor market, the low quality of training, as well as the mismatch of graduates' competencies with the requirements of the employer, in addition to various social factors.

An example of a successful partnership between government, business, and the scientific community is the Faraday Society in the UK. They represent an extensive network of organizations, including firms, trade associations, research bureaus, and universities. The main goal of these communities is to ensure the full exchange of the latest scientific and technological information, which will help increase the competitiveness of British industry in world markets and the country's economic prosperity. Government agencies also support Faraday communities: the total annual investment in research is more than 100 million pounds [23]. In addition, more than 1,700 companies have joined the activities of the Faraday Societies,

and the number of teams of scientists involved in specialized research has grown to 381 [24].

Thus, PPP within the framework of the innovative development of the economy can act not only in the form of holding meetings and coordinating the efforts of partners but also in the field of pursuing a clearly defined policy aimed at creating new firms focused on the use of the latest technologies [27], as well as conducting research and development, training business plans, the introduction of inventions and developments. Higher education institutions are generators of new theoretical knowledge. Still, they need the opportunity to practically verify the research results without financial and organizational support from government bodies and private businesses. In turn, governments and companies can only develop competitive products with the latest technologies and qualified personnel. In this case, the symbiosis of resources, efforts, and interests of partners will lead to the development of the economy and improve the quality of life of the population.

The main types of cooperation between governing bodies, business structures, and institutions of higher education can be:

- Research projects, partnership in the publication of the results of scientific discoveries;
- Practical activities in the field of the use of patents and copyrights;
- Transfer of knowledge and technology through the exchange of student and teaching staff between universities and enterprises;
- The creation of subsidiaries of corporations, as well as the formation of new firms as a kind of incubator of new scientific developments and business models [24].

Highly qualified specialists are required for the introduction and development of innovation [22]. The most sought-after specialists among employers are employees of such economic activities as construction, manufacturing, real estate transactions, and the provision of services. At the same time, half of the unemployed registered with the employment service have either complete or basic secondary education. Thus, the labor supply in the market must match employers' perceptions about the necessary needs. In this case, the cooperation of efforts and resources within the framework of PPP of government bodies, private businesses, and higher education institutions could smooth out this situation.

State and municipal governments have a wealth of information both from educational institutions about graduates and primary professions and from private businesses about personnel "hunger" (quantitative and qualitative indicators), which will help become a link for developing strategic priorities for educational policy in the field of higher education. Moreover, private businesses can be passive customers of highly qualified personnel and active participants in the educational process. So, based on state and municipal governments, institutions of higher education, and private businesses, joint seminars, workshops, internships, industrial practices, and master classes for teachers and students can be held.

#### 4.1 Legal Support of the Personnel Management System

The activities of personnel services are directly related to people: hiring or transfer to another job, dismissal. Prevention and prevention of conflict situations are possible only based on a precise regulation of the rights and obligations of all parties to labor relations, which can be achieved through the establishment of legal norms of a local or centralized nature [25]. The legal support of the organization's activities as a whole and the personnel, in particular, is assigned to the head, and other officials, including directors and employees of personnel management services. The legal support of the personnel management system should solve two fundamental tasks: (i) legal regulation of labor relations between employees and



employers [10]; (ii) protection of employees, their rights, and interests arising from labor relations [11]

The primary sources of legal regulation of personnel management include:

- Labor Code;
- Civil Code;
- Laws on collective agreements, population employment, trade unions, the procedure for resolving labor conflicts, etc.

Organizational documents on personnel management include:

- Resolution;
- Governments on the social protection of persons with disabilities;
- Industry-wide guidelines;
- Collective agreement;
- Internal labor regulations of the organization;
- Job descriptions;
- Rules on structural divisions;
- Staffing, etc.

Legal support of the personnel management system includes:

- Observance, application, and enforcement of the norms of legislation in the field of labor relations;
- Development and approval of local regulatory and non-regulatory acts of an organizational, economic, corporate, and administrative nature;
- Changing, canceling, and obsolete normative labor acts issued in the organization.

#### 4.2 Normative and Methodological Support of the Personnel Management System

Regulatory and methodological support of the personnel management system is a set of regulatory legal acts, documents of an organizational, organizational and administrative, methodological, technical, regulatory and technical, economic and techno-economic nature, regulatory and reference materials that define the rules, requirements, norms, methods, characteristics that are used to solve specific problems [26]. Regulatory and methodological support creates the necessary conditions for effectively implementing personnel management issues. The scope of local regulation is constantly expanding, including orders from managers on personnel matters, regulations on subdivisions, organization standards, and job descriptions.

*Groups of regulatory and methodological documents:*

1. Reference documents. They include the standards and norms necessary for solving the problems of organizing and planning labor in material management and production (technological, operational, and technological, route flow charts of management procedures, shift-daily tasks, programs for the production of parts, etc.).
2. Documents of an organizational and organizational-methodological nature. They regulate the functions, tasks, rights, and obligations of departments and individual employees of the personnel management system and contain the rules and methods of work on personnel management.
3. Documents of a technical, economic, and technical-economic nature. They contain requirements, norms, and rules governing standards of all types and categories (sanitary standards, cost estimates for production, business plan, safety standards, standard time standards, etc.).
4. On the basis of standard documents, taking into account the characteristics of a particular organization, personnel management services develop documents for internal use. The primary documents of internal use of the organization: collective agreement; internal labor regulations; job descriptions; regulations on subdivisions; staffing

schedule. Some documents and normative-legal acts of a systematic and organizational-methodical nature regulate the performance of specific functions for personnel management: Recommendations on recruitment, provisions on the formation of a personnel reserve, the settlement of relationships in the team, on incentives and remuneration [28].

#### 4.3 Preliminaring

The central role in ensuring the conditions for the implementation of public-private partnerships in the field of higher education and the creation of a new effective system for providing the performance of state personnel policy, having become a kind of bridge between the state regulation of the labor market, educational institutions and the private sector of the economy, should be played by regional centers for monitoring and ordering specialists formed based on cooperation between state structures and public associations of employers [37].

One cannot ignore the innovations in personnel management, which seep into the philosophy and methodology of personnel management of private companies in form as borrowing from Western practice (foreign terms) and in content – in many ways, as traditional forms of partnership between enterprises and educational institutions [29]. The system of distribution of graduates of educational institutions has given way to programs to promote their employment, and in the language of employers, to preliminaring, in other words, to attract young professionals to private companies.

It is clear that in the short term, this complex method of attracting personnel for business is very laborious because the company receives not a ready-made specialist with existing experience and skills but a newcomer who needs to be trained and supervised. However, if the company has a well-built system of adaptation and training, preliminaring is an excellent way to find loyal young employees who will renew an established team [14].

Preliminaring is a required method of rejuvenating the staff of the customer company by attracting to work, both on a permanent job and on a temporary internship, successful, promising students and graduates of the best educational institutions through participation in the organization of work practice and pieces of training for promising young professionals who can become the key to the success of the company in the future. Consider the effective methods for implementing the preliminaring technology presented in Figure 1.

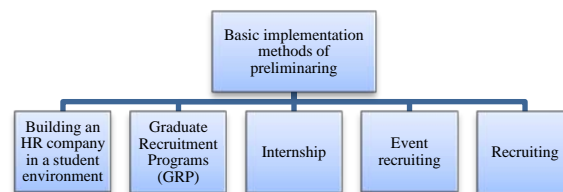


Figure 1 – Preliminaring implementation methods

In the Ukrainian market, preliminaring has been steadily gaining momentum lately. In contrast, in the European and American labor markets, this recruitment technology has long been introduced as a separate task for full-time HR managers of companies. It has been fixed in the vital list of services of leading recruiting agencies [30].

The use of complex preliminaring technology allows companies not only to solve the problems of increasing their innovative potential by attracting young professionals who are easy to adapt to their norms and work standards but also to receive an additional impetus for updating and developing their corporate culture, thereby providing themselves with opportunities and a robust resource foundation for strategic development.



#### 4.4 Professional teachers should carry out the training of qualified specialists

Modern society makes new demands on students. The "knowledgeable graduate" ceased to meet the needs of the community. Today, the market is for a "skillful, creative graduate" with value orientations. The teaching staff, who must be professionals in their field [18], is called upon to solve this problem. But if the level of professionalism of teachers does not meet modern requirements, one can hardly count on a high educational result that meets the needs of society and the state.

The teacher should strive for novelty and non-standard conduct in classes. Thus, to develop in students the skills to independently acquire knowledge, to form the ability to self-organize without imposing one or another stereotype, to allow students to choose the degree of mastering the material themselves [19].

The teacher must have professional competencies [17], i.e., the ability to act successfully based on practical experience, skills, and knowledge in solving professional problems. Key competencies are necessary for any field of human activity and are the key to success in life.

The following professional and pedagogical competencies are distinguished:

- A. Socio-psychological competence is associated with the willingness to solve professional problems, including in the development mode.
- B. Professional and communicative competence determines the degree of success of pedagogical communication and interaction with the subjects of the educational process.
- C. General pedagogical competence includes the psychological and pedagogical readiness to deploy the individual characteristics of the psychology and psychophysiology of the cognitive processes of the individual; knowledge of the basics of pedagogy.
- D. Subject competence in the field of the subject specialty; knowledge in the field of the taught subject and methods of teaching it.
- E. Managerial competence, i.e., the skills to conduct pedagogical analysis, set goals, and plan and organize activities.
- F. Reflective competence, i.e., the ability to see the process and the result of their pedagogical activity.
- G. Information and communication competence is associated with the ability to work with technologies in current conditions.
- H. Competence in the field of innovation, characterizing the teacher as an experimenter.
- I. Creative competence, i.e., the teacher's ability to bring activity to an innovative, research level.

Here are just some of the competencies that a teacher should get. In order for a teacher to master these competencies, he needs to realize the necessity to improve his general human and unique culture [17] and carefully organize scientific and methodological communication for further development and learning.

#### 5 Discussion

Modern realities favor the private sector's interest in cooperation with the state and the education system to replenish the development workforce in various sectors of the economy [32]. Of course, Internet sites are the most effective recruitment tool; however, preliminaring is similar.

Common trends in the personnel management of the business sector indicate an internal growth of interest in cooperation with educational institutions. The only thing left for the public sector is not to miss this sacred moment when all interested parties are ready for dialogue; the administrative apparatus needs to act as an intermediary between the education and labor markets, focusing on reasonable partnership mechanisms and the national interests of the state.

Business is already participating in the creation of business schools and the development of specialized educational programs and methods:

- A. *Graduate Recruitment Programs*. The priority goal is to select the best candidates from promising graduates of educational institutions is achieved through direct competitive tests: (a) selection of students of graduating courses in the declared selection program, (b) participation in an additional corporate training program, assistance in adaptation, etc., c) assessment based on the results of a set of tests and making a hiring decision.
- B. *Internship*. Priority goals: 1) for a young specialist to know the future employer not only from the outside but also directly inside the organization of the work process; 2) for the company to obtain formal and informal indicators to evaluate a potential job applicant by (a) selection of students/graduates for internships, (b) an internship (assistance in adaptation and application of knowledge in practice), (c) assessment based on the results of a set of tests and making a hiring decision [33].
- C. *Event-recruiting*. The priority goal is to select the best candidates from promising graduates of educational institutions is achieved through specially organized events that benefit the company, including creating a compelling image among the student communities: (a) thematic forums, conferences, etc., (b) "Open Days," job fairs, and "Career Days," (c) flash mobs and other volunteer events with the participation of the student movement, etc.
- D. *Recruiting*. The priority goal is to select the best candidates from promising graduates of educational institutions is achieved by posting announcements about available vacancies on the resources of educational institutions: (a) analysis of the portfolio of students posted on the websites of educational institutions, (b) preliminary collection and analysis of resumes according to the formal characteristics of candidates and their placement in the database, (c) an interview of the HP manager with the most suitable candidates.
- E. *Formation of the company's HR brand in the student environment*. The priority goal is to consolidate and promote the company's image among applicants in the student environment by (a) identifying the needs of the target audience (students), (b) forming and developing the company's HP brand, including through affiliate links on the website of educational institutions using the resources of educational institutions and other programs and educational standards of the new generation, in monitoring labor markets and financing grants and nominal scholarships in leading educational institutions. Furthermore, with the participation of partner monitoring centers and ordering specialists, it is necessary to intensify businesses' involvement in financing and business cooperation with the higher education system.

Joint scientific-practical and educational activities benefit each of the parties of the public-private partnership in professional higher education: by activating the resources necessary to ensure a high level and quality of life (financial, logistical, intellectual, etc.).

For Ukraine and other post-Soviet countries, public-private partnership as an independent and standardized direction in the organization of cooperation between the state and business is an innovation introduced by transformational reforms [8]. Now in a country with a transformational economy, research is currently being most intensively conducted on the theory and practice of public-private partnerships. In Ukraine, for the development of scientific, methodological, legal, and organizational support for creating conditions for implementing PPP projects of national and regional significance, a non-entrepreneurial organization was established [23]. Academician of the National Academy of Sciences of Ukraine, V. M. Geets, created the Ukrainian Center for Assistance in the Development of Public-Private Partnerships. The US Agency funds a Public-Private Partnership Development Program for International Development [29].

Institutional conditions and tools for public-private partnerships in Ukraine are currently in the process of formation [21]. The Law of Ukraine "On Public-Private Partnership" was adopted, which fixed a number of the most critical, typical for the European Union, principles in attracting private investors: equality before the Law of partners; prohibition of any discrimination of their rights; harmonization of partners' interests to obtain mutual benefits; the invariance of the contract throughout the entire period of validity; recognition by partners of the rights and obligations provided for by the legislation of Ukraine and determined by the terms of the contract; fair distribution of risks; determination of a private partner on competitive terms [6]. In addition, some regulatory legal acts have been approved related to organizing the implementation of public-private partnerships, identifying, and assessing the risks arising from this and managing risks, providing state support and state guarantees, and obtaining relevant information for the Law implementation.

However, the legislative framework for cooperation between the state and business has yet to become a catalyst for developing public-private partnerships in Ukraine, not only because of its incompleteness but also because of its imperfection [20]. The legal framework on public-private partnership, designed to stimulate the development of cooperation between the state and business, increase the competitiveness of the economy of the country and regions and attract investment in the economy, is imperfect for implementation of the task rooted in the very essence of PPP – the coordination of the interests of partners. Private business has yet to show interest in concluding PPP contracts.

The spheres of application of PPP have yet to be finalized. Discrepancies in legislative acts evidence this, particularly in the Law of Ukraine "On Public-Private Partnership" and the Program of Economic Reforms of Ukraine for 2010–2014 "Prosperous Society, Competitive Economy, Efficient State." Unlike the Law, the Program plans to introduce public-private partnerships in the scientific and technical sphere to develop primary industries [4].

The Law limits the possible forms of PPP. Following the Law, PPP is implemented only contractually and cannot be carried out by creating a legal entity. The Law thus excludes institutional forms of PPP (except for joint activities). As a result, a higher level of interaction between the state and business – integrating public and private capital in implementing partnerships is separate. Meanwhile, collaboration is only possible with the business's strategic interests [13]. A natural alternative to privatization to preserve private entrepreneurial initiatives could be the creation of enterprises with mixed public-private ownership. The state remains the owner, retains the right to control PPP objects, and mutual balancing of market institutions and public authorities is ensured [13]. According to Gerrard, head of British Public-Private Partnerships, a company set up by the UK government to promote PPPs, partnerships are created and operate at the border of the public and private sectors of the economy, being neither nationalized nor privatized. Politically, they represent a third way [15].

Public-private partnership objects that are state or municipal property by the law will not be able to change the owner; the classic version of public-private partnership, namely BOT (*Build – Operate – Transfer*), which is based on "private finance initiative" in the UK, cannot be implemented. There is no provision for reimbursement of all economically justified expenses by the private partner.

There needs to be officially systematized information on the application and implementation of partnership projects between the state and businesses in Ukraine [18]. However, in international practice, monitoring data on developing PPPs in the world countries is carried out. The World Bank provides the most systematic information. According to the World Bank methodology, a project is considered a PPP if the participation of a private partner in its implementation is at least 25%, and an

asset sale project is considered if private owners own at least 5% of the shares.

The use of sound provisions and recommendations on the formation of the institution of public-private partnership will allow to combine and direct the integrated resources and capabilities of the state and business to solve problems in priority areas of structural modernization of the economy [35].

## 6 Conclusion

Thus, public-private partnerships are one of the main instruments for achieving the country's progressive economic development. However, it is already clear that it is only possible to qualitatively implement global infrastructure projects by the state or business.

Therefore, from our point of view, it seems appropriate to update on a full scale the mechanisms of interaction between public and private institutions, primarily those implemented in the field of increasing the country's human resources potential, right now, when all parties to the partnership, through trial and error, have come to realize its necessity. Thus, considering the possibility of interaction between government bodies, private businesses, and institutions of higher professional education, we can draw the following determinations:

1. Institutions of higher professional education have significant human and resource potential for the region's innovative development.
2. The structure of personnel training (profiles and training areas) should correspond to the main sectoral structure of the region's economy.
3. Educational institutions within the framework of PPP acquire mobility in developing new educational programs in specialties and professions in demand in the labor market.
4. The need to stimulate innovation, public initiatives, and focus on creativity.
5. Expansion of social partnership and contractual relations.
6. The main task of the educational policy in the region is to foster a sense of responsibility of the individual for the knowledge gained and to orient human resources towards social activity and mobility in the process of human capital reproduction within the given municipality.

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**Primary Paper Section: A**

**Secondary Paper Section: AE, AG, AH, AM**

## THE CONCEPT OF RESEARCH AND SCIENTIFIC-CREATIVE PROGRAM AS A PRIMARY ELEMENT IN THE "DECORATIVE ART" EDUCATION CURRICULUM

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**Abstract:** The article aims to highlight the conceptual foundations of forming a creative personality at the graduate department "Decorative Arts" of Kosiv Institute of Applied and Decorative Arts of Lviv National Academy of Arts. This research considers the tasks of the scientific and pedagogical team and, in particular, the methods of teaching professionally oriented disciplines aimed at improving students' scientific and creative activity, as also experimental and search practice. The article deals with teaching philosophy in the Design course, which is the fundamental element of the system of the master's degree program in MA Decorative Art of the second educational grade. Its goal is to help the graduate student extend problem-solving skills through complex art tasks in decorative art. The authors have established the vectors of creative activity and the worthwhileness of research experiments during the teaching and learning process. The article's topic is part of the research activities of the Decorative Art department, dedicated to improving methods of teaching significant subjects.

**Keywords:** Creative experiments, Education, Folk art, Instructional methods, Research activity, Self-identification, Spirituality.

### 1 Introduction

The Kosiv Art School is one of the few art schools in Ukraine and the world that successfully solves the problems of preservation and modern development of folk art traditions. The leveling of national and ethnic art in the period of all-encompassing internationalization can lead to the loss of a significant part of crafts that have developed over the centuries in the territory of ethnic regions. Indifference to this problem on the part of the authorities is confirmed by the analysis of the latest directives of the Ministry of Education and Science of Ukraine, which does not reflect the issue of developing a nationally oriented specialist and do not give a special status to art education [3], as is done in the world [1].

Particularly vulnerable today are regional schools located in small towns, where decorative and applied art of Ukraine originally developed, which is on the verge of disappearing due to the low cost of works of art and the lack of state support for masters. The task of our school is not only the training of professional artistic personnel but also the popularization of folk art of Ukraine, solving the problems of filling art centers and art schools with highly professional personnel. This significant nationwide problem is solved in the Institute of Applied and Decorative Arts of Lviv National Academy of Arts in the context of the educational program "Decorative Art," which accumulates in itself the scientific and practical principles of the educational material, which are embedded in many content modules, logically connected in a coherent system.

The synthesis of knowledge and practical skills makes it possible to find an individual, scientifically based, creative way of self-expression of the future artist. Furthermore, the teachers of the educational institution are firmly convinced of the relevance of folk art as a unique type of Ukrainian decorative art [3], which is connected with the processes of deep awareness of its historical significance, the discovery of the originality of cultural phenomena, and the outline of optimistic prospects for the adaptation of Ukrainian artists to the world artistic context. Therefore, each component of the educational program, the content of which is filled based on the needs and realities of Ukrainian society, is provided with modern, relevant didactic teaching methods that are in continuous development and effectively ensure the educational and creative activity of students.

### 2 Literature Review

Research by Padalko, Vashchenko, Ziaziun, and Moroz testify that the effectiveness of education and the creative realization of students depends on the cooperation of the teacher and the student in the context of humanistic principles, according to which educational processes are carried out [11, 25]. The educational and methodical works of artists-pedagogues of the last century, Chystiakov, Favorskyi, Radlov, and our contemporaries Bieda, Rieznichenko, Shcheryn, Yashukhin reveal the multi-vector nature of didactic approaches to image creation methods during the preparation of future professional artists.

"Design" is a discipline in the system of the educational and professional program "Decorative Art" at the master's level, which is a specialized course aimed at students mastering modern methods of activity of a professional artist in the field of decorative and fine arts. Researchers consider the formation of meaningful life landmarks in a person, elevating the movements of his soul above the movements of the mind [6, p. 227], to be the ultimate task of art [22]. Its goal is the development of aesthetic consciousness in the individual and its enrichment.

Boriev, generally defining the purpose of art, draws attention to the fact that it exists in the name of people. Therefore, its highest task is humanism, socialization of the individual, affirmation of his self-worth, bringing a person aesthetic satisfaction, and awakening his creative spirit [5].

Ziaziun sees the purpose of art in the direction of a person through individual emotional and aesthetic experiences to the universal ones [25, p. 31–50]. Most researchers are united in the fact that the primary function of art is aesthetic [7, 20, 23], aimed at awakening and developing in a person an aesthetic, emotional, and valuable attitude to the surrounding reality [25].

### 3 Materials and Methods

The basis of the research and scientific-creative program "Decorative Art" at the master's degree of the Kosiv Institute of Applied and Decorative Arts is a deep insight into the tradition of Ukrainian folk art. The art school is the continuous chain that connects the unique heritage of the Hutsul region's folk art and classical art education and develops a strategy for developing modern art in the area, guided by the principles of preserving national identity and originality. During its almost 140-year existence of the institution, a large cohort of masters, artists, teachers, and mentors gave their minds and talents, soul warmth, and their own lives to create, thus developing the Kosiv Art School [24, p. 13].

In 2019, the higher art school accredited the second educational level – master's degree. Folk art's aesthetic, technological, and spiritual foundations serve as an inexhaustible source of creative interpretations for students and teachers of the Department of Decorative Arts based on which teaching methods are formed. The department sets itself the task of developing and introducing into the educational process teaching methods of current areas of design adapted to the problems of modern art.

Teaching methods in the artistic field of education are developed based on a synthesis of humanistic and artistic principles of activity [4, 19]. Therefore, the experience of scientists [8, 9, 10, 12], whose professional activity is significant for the modern system of artistic and pedagogical education, is of great importance for considering the outlined problem.

### 4 Results

In order to reveal and form all the necessary qualities of a professional artist, the educational program "Decorative Art" and, in particular, the discipline "Design" accumulates in itself

scientific and practical principles of educational material, which are laid out in some content modules, logically connected in a coherent system. The synthesis of knowledge and practical skills makes it possible to find an individual, scientifically based, creative way of self-expression of the future artist.

The department develops research issues in the context of cultural and economic tasks of the region's development. The main directions of scientific and creative projects are forming new living forms and establishing traditional principles of form-making and decoration in various types of decorative art. The design of small architectural structures, the design of sacred interiors, the formation of the stylistics of serial production samples, the creation of collections of conceptual products, the synthesis of hand-made technologies, and modern methods of manufacturing products have become important.

The design begins with analyzing the source base and variable sketching by topic. This stage aims to form a general vision of the art object and possible options for visualizing its artistic image. Next, the analysis of literature and similar samples by topic makes it possible to outline artistic tasks, which are primarily aimed at searching for innovative solutions, adapting to modern artistic practices, and establishing a national style. Therefore, the tasks that the Kosiv Art Higher School sets before itself are forming actual methods of designing works, considering modern achievements in human activity's scientific, technical, and social spheres.

Since the teaching traditions of the school are directly related to folk decorative and applied art, at the second educational level – the master's degree research of folk sources and creative experiments are the basis of the activities of the teaching staff and master's students, who jointly solve various aesthetic tasks of the department of decorative arts. The democratic and humanistic nature of folk art, which reveals the sensuous and practical experience of generations formed over many centuries, shows important regularities and fundamental values of life; its practicality and expediency attract young artists and becomes a fertile ground for the self-expression of a new generation of artists. In the specific imagery of the stylistic and plastic language of the works of folk masters, they find the most expressive in the artistic sense and the most concise – in the technological form, which very accurately and profoundly reveals the author's idea.

Dialectically developing within the specifics of its genres and types, folk art is always connected to the general artistic processes of its time. Despite the long-lasting traditions, it has always been and remains relevant and consistent with progressive and democratic ideas. Studying the principles of form-making, ornamentation, and artistic and plastic principles of image creation in the products of folk artisans develops high feelings of patriotism and an optimistic attitude to life and motivates creative experiments in young artists. At the same time, it is imperative to turn to the spiritual roots of native art, the connection with nature, everyday life, and folklore, which continues the life of traditions through ecological materials combined with the latest tools and tools modern equipment.

## 5 Discussion

The discipline "Design" is a system of meaningful modules that build in a logical sequence the concept of the artist's activity in solving complex aesthetic problems. Based on the current needs of society, the department annually develops design topics, taking into account the achievements of modern decorative art. For this purpose, planned internships of teachers' scientific and pedagogical staff are carried out, which take place in various forms: from studying the progressive experience of domestic and foreign art institutions to participating in international Plein air art, grants, etc. This makes it possible to adapt the topics of creative and scientific practices to the current problems of the cultural space of the state and society to determine the strategic guidelines for developing a higher art school. For example, let's cite the institute's participation of teachers and students in the international grant "Establishing an interregional partnership

with the Legionovsky district of the Republic of Poland" as an opportunity to popularize the historical and cultural heritage of the Hutsul region outside the ethnic area." The problems outlined by the project are the preservation and development of the style orientation of samples of handicrafts, ways to popularize the historical and cultural heritage, additional opportunities for preserving cultural identity, and ensuring regional competitiveness. Experimental research and creative practices of the educational process at the master's degree are designed to solve these problems on the model of the implementation of specific art projects that are closely related to topical issues of the cultural and economic development of the Hutsul region. For example, the colorful traditions of folk clothing, furniture, tableware, carpet weaving, and mob-making, combined with natural resources, attract tourists to the region, developing this industry and the region's economy.

The solution of any course project provides for the following educational stages – the study of ethnographic heritage and progressive experience on the topic, variable sketching, and graphic and technical theme technology [15, 16, 21]. The undergraduate chooses the direction of design that meets the scope of his creative and scientific interests, and the leaders build a strategy for searches and experiments to form the concept of creation. Therefore, an obligatory training module in the discipline program is an experimental and search activity. Students consolidate knowledge of the basics of scientific research and form a source base for a deeper understanding of the genesis, development, and possible prospects for solving an aesthetic problem.

Modern art education is aimed at the comprehensive use of the achievements and capabilities of computer graphics [18]. The goal is to acquaint students with its basics and software products for the design of products of arts and crafts [14]. Given this, an essential component in the educational process of the art school, along with the manual author's technique, students actively use and master the latest means of computer graphic language [13]. In particular, on the subject of "Computer Design," students should know the basic concepts of raster and vector graphics; the concept of color, palettes, and color models; formats for saving graphic files; software products of computer design (Adobe Photoshop); the main principles of the organization of the decorative composition. This will allow them to master the techniques of decorative-planar modeling of an object, the skills of linear-constructive construction, the principles of organizing design material to convey a creative idea, the methods of working on a computer in basic graphics programs, the techniques of working on a plotter and a printer for preparing textile drawings. Thus, our graduates will be fully prepared to work at a high modern artistic and technical level and can use application software to solve typical problems of the specialty, using the methods of digital representation and processing of visual information and adequately implementing the tool capabilities of graphic editors.

These processes are based on the humanistic principles of pedagogy – collectivism and cooperation, recognition of individuality and uniqueness, value for society of everyone, and consideration of the student's interests and perception of person as he is [25, p. 103]. The principle of spiritual education gives complete freedom to choose ways of personal development [6], ensures a high level of realization of life potential and encourages the creative initiative of undergraduates, gives spirituality to learning processes [17], and subordinates the actions of the teacher and the student to higher spiritual values, which in turn always produces the effectiveness of the results of work on the subject of the qualification task.

Today, topics related to the tourism industry and the development of the infrastructure of small towns and villages are relevant to the region's needs. Therefore, students choose small architectural forms for the approval of scientific research in master's qualification works; complex design of sacred and public objects; design and layout of the creation of advertising products: tourist booklets, catalogs, information leaflets;

development of clothing collections in the "neofolk" style, which every year are gaining more and more popularity among Ukrainians of all regions of the country.

Practical expediency, functionality, and a pronounced aesthetic and stylistic focus are what characterize the works of folk masters, which are kept in museums and private collections of the Carpathian region. And it is these features that future professional artists broadcast in their rather creative experiments. Ultimately new methodological approaches mark variable searches for artistic images in the sketching of master's students. Bold, sometimes controversial solutions to forms and synthesized principles of decoration encourage a profound rethinking of the heritage of traditional art and reveal innovative forms of adaptation of established prototypes of image creation to the current requirements of the time.

Another unique method of studying the discipline "Design" is the mock-up of samples and sketches of products, which is carried out with the help of mastering the skills of working with various materials and techniques of decorative art. Quite often, master's students use a synthesis of artificial and modern industrial technologies, which allows them to meet the requirements of the most demanding design. Orientation on the environmental friendliness of materials, virtuosic manipulation of simulacra of ornamental signs and motifs associated with national spiritual symbols, and a high level of skill in performing complex technical operations ensures a competent approach taking into account humanistic requirements to education and gives a tremendous aesthetic return from the learning processes to the subjects of the educational process. The research issue is ancient authentic technologies that arouse great interest in society due to their unique energy of hand-crafting, exclusively author's methods of interpretation, and yet to fully explore properties of influence on forming a sense of self-identity physical health of a person.

## 6 Conclusion

Scientific and educational-methodological developments of the Department of Decorative Arts of the Kosiv Institute of Applied and Decorative Arts are concentrated on methods of improvement and deepening the ways of learning the creation processes. The teachers of the educational institution are firmly convinced of the relevance of folk art as a unique type of Ukrainian fine art, which is connected with the processes of deep awareness of its historical significance, the discovery of the originality of cultural phenomena, and the outline of optimistic prospects for the adaptation of Ukrainian artists to the world artistic context.

Therefore, each component of the educational program, the content of which is filled based on the needs and realities of Ukrainian society, is provided with modern, up-to-date didactic teaching methods that are in continuous development and effectively ensure the educational and creative activities of students.

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## Primary Paper Section: A

## Secondary Paper Section: AL

## UNIVERSITY STUDENT'S IMAGE: FEATURES OF FORMATION AND DEVELOPMENT

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**Abstract:** The article deals with the problem of the image of the student in Higher Education Institutions. Future experts were invited to express their opinion on the image of the modern student by answering the questionnaire "Student image," developed by the authors of the article. The conducted research made it possible to clarify the student youth's views on the student's positive and negative image, so further research will be aimed at developing and implementing recommendations for forming a positive image of the student in a Higher Education Institution.

**Keywords:** Appearance of a student, Institution of higher education, Negative image, Positive image, Student's image.

### 1 Introduction

At the stage of reforming all educational units in Ukraine, the problem of forming the image of the student of a Higher Education Institution (HEI) is actualized, which causes the activation of various self-processes: self-reflection, self-development, self-improvement, self-realization [22], which serve as a basis for the effective functioning of the future specialist in multiple spheres of social activity, educational and professional in particular.

The image of student youth is a problem that has recently attracted considerable interest from domestic and foreign researchers. To a large extent, this is due to the fact that the student's age is a sensitive period for developing intellectual and physical forces, the growth of creative opportunities, and the flourishing of external attractiveness. But unfortunately, this age period conceals the illusion that intellectual and physical dreaming will always accompany a person and that success can be achieved through beauty and youth without much effort. That is why young people should be motivated to create a positive image, because this phenomenon contains not only the external side, which is based on visual attractiveness, physical perfection, healthy appearance, and good manners but its essence, which is the inner world of personality – mentality, moral qualities, volitional characteristics, general culture, professional competence, etc.

The *purpose* of our research is to reveal an understanding of the essence of the image by representatives of universities from different industries (the survey covered future agrarians, economists, educators, and physicians), which allowed us not only to get acquainted with the views of future specialists of different specialties but also to identify common features in these views which create a positive and negative personality image and analyze the attitude to the image by students themselves.

### 2 Literature Review

In the scientific works of domestic and foreign researchers, problems have been raised that form the basis for creating the image of students of Higher Education Institution: professional competence, social and professional maturity, professional self-development, professional mobility, professional ethics, etc.

Radul considers the characteristic of socio-professional maturity of the personality of a person important, which "implies the perception and understanding of oneself, the attitude to oneself

and behavior in the environment, the contemplative image of oneself, the formation of certain signs of personality and specific properties of oneself as a unit of activity, at the same time more or less emotional load, self-esteem and methods of action that become typical in behavior and used in everyday life are revealed" [26, p. 175].

Prima states that the professional mobility of a specialist requires the presence of professionally essential qualities to which he attributes: "individual image, adaptability, independence, communicativeness, prompt thinking, purposefulness, responsibility, critical thinking, ability to self-confidence, self-control, etc." [25, p. 148].

Thus, in the writings of Ukrainian scientists, concerning various aspects of the problem of professional self-development of future specialists, the need to develop in them such personal and professional qualities that would be a prerequisite for the professional success of a young specialist and his demand in the labor market, ensure the competitiveness of young people market economy is indicated.

Scientists consider the image to be a complex personal-professional formation [16, 20, 25]. Under the influence of higher education reform in Ukraine, requirements not only for the quality of higher education and professional training of future professionals are changing, but the image of the student body itself is changing. The generalized image of the student is a part of the image of a particular university, which imprints on the perception of this institution by the public, determines the overall rating of the institution in the higher education system, as well as the participation of its representatives in perspective projects, widens international relations, increases the influx of entrants while providing more opportunity.

Domestic and foreign researchers study the problem of the image of the student of a Higher Education Institution [1, 6, 17, 22]. Thus, Valeeva defines the image of the student as a personal property of the subject, which translates his idea of himself in the totality of visual qualities, behaviors, and internal and external biosocial characteristics in a particular environment of life, provides optimal integration of the learner in society and productive implementation of activities in the chosen field of social practice [30, p. 11].

From the point of view of the researcher, the structure of the student's image integrates natural (physical, psychophysiological, age, gender), socio-behavioral (visual, audio, olfactory, kinesthetic images; individual lifestyle, role-playing, moral, role-playing, role-playing, moral, emotional-willful qualities of a professional) components [ibid].

Zherebrenko considers the image of a professional as the core of the student's image because the student today is a future professional who should represent his basic features already at the stage of professional preparation. In the structure of the image of the experienced researcher, the following components are distinguished: external (visual attractiveness, harmony, demeanor, facial expressions, gestures, timbre and power of voice, suit, gait, etc.), procedural (style of behavior, self-submission, form of communication, professionalism, plasticity) and internal (inner world of the individual, knowledge, ability, understanding of his spiritual and moral and intellectual development, needs, values, etc.) [31, p. 14].

Dovga notes that modern students stay aware of the changes that are taking place in public life. Like most young people, they follow fashion and care for their appearance. In the student environment, the prevailing view is that being fashionable means, first of all, adhering to fashion for clothing and accessories. Therefore, students usually spend considerable money to create their stylish image (buying expensive clothes, luxury perfumes, the latest mobile gadgets, etc.) but need to pay



more attention to the ability to dress appropriately and with taste, develop an individual style, consider fashion trends, and more.

In this regard, the scientist advises drawing students' attention to the social-image function of clothing, which testifies to a person's belonging to a specific profession, income level, and ethnic or regional origin. Clothing creates conditions for self-expression and personification and helps to establish communication with people of a particular circle. Dressing is one of the main rules to look good: it means showing respect for the people around us. Thanks to clothes, a person asserts himself and acquires a certain image in the eyes of the public [12, p. 29].

Podgurskaya focuses on studying the linguistic component of the image of the modern student. The researcher points out that the use of so-called fashion words, which emphasize the present and avant-garde (sometimes even bohemian or elite) of the speaker, and a sign of national and multicultural personality image, are important in shaping the "modernity" of the young man since these words are often borrowed from other languages. They should be a guide for teachers in shaping students' linguistic image [24, p. 350].

Helena Alves and Mario Raposo have proposed a model for reflecting the impact of an image on student satisfaction and loyalty. The model shows that the image is the formation that influences students' satisfaction. Furthermore, the authors emphasize that the influence of image is also relevant concerning student loyalty. In their work, scientists described the specific effects of the image on students' satisfaction and students' loyalty and also the appropriate level of influence [1].

Scholars Nehme Azoury, Lindos Daou, and Charbel El Khoury have focused their attention on the study's goal to investigate the relationships existing between cognitive, affective, and overall university image. Researchers have emphasized that the university's positive image will foster students' interest in successful learning [2].

Rebecca Maymon, Nathan Hall, and Jason Harley emphasized the importance of perception of actual support received concerning stress and well-being among first-year students attending Canadian and U.S. Higher Education Institutions [19].

Studying the scientific sources on this problem we have concluded that there needs to be more explorations to study the student's image (as a factor of future professional success). Therefore, we conducted this study to find out the importance of forming a positive image for students.

### 3 Materials and Methods

We researched the image of a high school teacher and published the results [23]. The student's interest and involvement in the interviewees prompted us to continue our research on the image, so we focused on the student's appearance in the educational process of the Higher Education Institution.

According to the purpose of the research, we designed a questionnaire using Google Forms, which was distributed to students at HEI via online networks. As a result, 263 respondents took part in the survey – students of agricultural and economic branches (58 persons (22.3%), medical branch (78 persons (30%)) and pedagogical branch (124 persons (47.7%)) universities, including 194 bachelors (75.2%) and 64 masters (24.8%), 180 persons (69.2%) are female, 80 persons (30.8%) are male. Google automatically calculated the answers.

The questionnaire included the following questions:

- What is the importance of the student's appearance?
- How important to you is the student's compliance with standards of behavior?
- How do you feel about having visible tattoos on students?
- Do you find it unnecessary for students to use profane language?
- Suggest three traits of a positive image of the student.

- Suggest three traits of a negative image of the student of HEI.
- How does the academic success of students use personal electronic gadgets?
- Is it essential for you to be an active student?
- How important is communication with classmates to you?
- Do you maintain a healthy lifestyle?
- How often do you visit cultural and entertaining events?
- What role does the student have in the university's educational process?
- What languages do a university student need to know?
- What are the modifications (decorations) of your body you are comfortable with: makeup, tattoo, piercing, implants, nail art?

### 4 Results and Discussion

The following answers were offered to the question about the importance of the student's appearance: very important – 65 people (25.1%), important – 154 (59.5%), not important – 40 (15.4%). That is, most respondents recognize the importance of the student's appearance.

All the questioned respondents but five (1.9%) consider the observance of behavior norms very important – 133 respondents (51.2%) and important – 122 (46.9%).

Respondents' attitude to the presence of visible tattoos on future specialists was distributed as follows: 129 people (49.6%) said that they did not care, 51 people (19.6%) had a positive attitude to visible tattoos, and 80 people (30.8 %) had a negative attitude.

The overwhelming majority of respondents (155 people (59.6%)) said they were discouraged by the use of obscene language used by students. However, 63 people (24.2%) did not care, and 42 people (16.2%) were confused by this fact.

According to the answers of 197 respondents (77.6%), the use of electronic gadgets by students during the educational process has a positive effect on academic performance. The negative impact of gadgets is seen by 28 people (11%), and 29 people (11.4%) believe that the use of these devices does not affect academic performance.

Respondents answered concerning the importance of being an active student as follows: very important – 66 people (26%); important – 159 people (62.6%); not important – 29 people (11.4%).

The positive fact is that most respondents (very important – 103 people (40.4%)) and importantly – 139 people (54.5%) noted the importance of communicating with classmates. Only 13 people (5.1%) indicated that communication with classmates was not important for them.

The negative fact is that the overwhelming majority of the interviewed future professionals sometimes adhere (157 people (61.4%)), and 17 people (6.6%) do not adhere to a healthy lifestyle at all. And only 82 people (32%) always adhere to a healthy lifestyle.

51 (19.9%) of the interviewed persons visit cultural and entertaining events frequently, and most do it from time to time – 190 (74.2%) and 15 (5.9%) do not do it at all.

159 (62.1%) of respondents believe that a student should take the initiative in the educational process. However, 93 (36.3%) persons think it is necessary to take a vital part, and 4 (1.6%) persons believe it is sufficient to be a passive observer in the educational process.

The question "What languages should a university student know?" received the following answers: mother tongue – 14 (5.4%), mother tongue (required) and one foreign language – 171 (66.5%), mother tongue and a few foreign languages – 69 (26.9%) respondents, and 3 people have their own opinion (1.2%).

Respondents are calm about body modifications, such as makeup, tattooing, piercing, and nail art, except for implants. It is worth noting that students found it difficult to answer individual questions, so they still need to answer them.

Respondents' answers regarding *positive* image traits illustrate the considerable diversity of opinions, which confirms the diverse and integrated character of the student's HEI image. However, almost all respondents put neatness (neat and clean hair, good appearance, neatness, cleanliness, good hairstyle, calm makeup, and slight decorations) first.

The next preference is given to *education* (politeness, restraint, elegance, tolerance, patience, humanity, humility, modesty, honesty, kindness, respect for the elders, humility, kindness, honesty, patience). Last but not least, respondents have a positive attitude to student *responsibility* (personality activity, motivation, initiative, perseverance, independence, punctuality, diligence, thirst for knowledge, and determination). *Discipline* (diligence, dedication, confidence, hard work, continuous training, curiosity, perseverance, diligence punctuality) is also one of the positive image traits.

Respondents also focused on *communication skills* (mutual understanding, good conversation style, good sense of humor, cheerfulness, friendliness, good speech, and tolerance). Some of the future experts suggested the following features: creativity, initiative, creativity, ambition, and confidence.

Generalization of the answers received led to the separation of aspects of activity and behavior of the student of HEI, which form a *negative* image: the use of obscene vocabulary, the presence of bad habits, negligence, indifference to learning, aggressiveness, apathy, hypocrisy, irresponsibility, self-responsibility, self-esteem, dysfunctionality, ignoring the rules of conduct during the educational process, delay, violation of etiquette, vulgarity, negative attitude towards teachers, outward attitude towards others, absent-mindedness, insidiousness, irrepressibility, dishonesty, audacity, indifference, inadequacy, incompatibility, indifference, tattoos, or their significant number.

Researchers Pak and Yablonsky argue that students should be motivated to create a positive image, and this process is due to the following factors: knowledge of employers' requirements for graduate school and students' awareness of the need to form a positive image as a component of success; formation of motivation of the graduate for development of self-image skills taking into account high standards of the profession and various spheres of reality; manifestation of the subjective position of the student when working on his image, and self-improvement; correction by young people of ways of behavior, self-esteem, social status, methods of communication (professional, business, interpersonal) concerning others based on timely self-diagnosis and reflection [21, p. 171].

Dovha connects the need to create a positive image of the student with social expectations, which are understood as the norms and requirements of the social environment which confront a person at a particular stage of life and aim at developing the necessary social roles. Social expectations include:

- A person's awareness of what forms of behavior others expect from him;
- Anticipation of possible reactions of others to his behavior;
- Acceptance by a person of the requirements imposed on him about social status.

Social expectations are essential for personality self-regulation [13, p. 408].

During the student period, there is an active development of moral and aesthetic feelings, formation and stabilization of character, and, most importantly, mastering an adult's full range of social roles: civil and professional [8]. Transformation of motivation, the entire system of value orientations, on the one hand, and intensive formation of exceptional abilities in

connection with professionalization, on the other, distinguish this age as the central period of the formation of character and intelligence. Studying at a university is an activity during which a huge mental and neuro-emotional load falls on the student, so it is crucial to forming the ability to manage the mental state in the process of cognitive activity (minimizing emotional arousal in anticipation of the exam or during it, emotional disposition for success, confidence in their abilities, high efficiency, etc.).

Productive learning activity puts the student in a situation of obtaining a socially significant and culturally valuable product from the beginning of mastering a new activity [15]. In this situation, the student is faced with the objective need to cooperate with the teacher and other students, focusing primarily on the semantics and not only on the operational and technical side of the activity. In a situation of productive joint activity, an optimal zone for realizing the opportunities contained in the cooperation of the teacher with students and related to the upbringing and self-government of the individual arises. Consequently, the formation the development of students is determined by the internal contradictions of the individual, among which are tangible:

- The need for social recognition and limited opportunities for its implementation [5];
- The need for independence and the condescending attitude of adults, particularly parents [10];
- The need for self-understanding, self-identification, insufficient or contradictory information about oneself, and the ability to integrate and rethink this information [29];
- The need for understanding and a sense of loneliness and alienation [7];
- The need for professional self-determination, insufficient opportunities, and motivation in implementing the choice [28].

The psychological development of a student's personality is a dialectical process of resolving contradictions, the external transition into the internal, self-movement, and active work on oneself [4].

Pedagogical assessment significantly contributes to the evaluation of students' judgments [14, 18]. The functions of pedagogical review are conditionally divided into two areas – orienting and stimulating. Combining these areas forms the student's knowledge of himself, encouraging the development of value judgments concerning himself.

Modern psychological and pedagogical research convincingly proves that effective pedagogical interaction is only possible by considering the peculiarities of students' motivational sphere [6, 13, 20]. Behind objectively identical actions of students, there can be completely different reasons; therefore, motivation is of exceptional interest to the teacher as a leading factor in the regulation of personality behavior. Investigating the structural composition of educational activity, the motivation for learning and learning tasks are singled out as the main elements of this structure, which include the goal, learning actions, and conditions for achieving the goal (skills of self-control and self-esteem).

The following factors activate personal development during the student period:

- The new social status of the individual (relative independence, social prestige, and the importance of future professional activity) [9];
- Change in the type of activity (it becomes a unique educational and practical-professional activity) [17];
- New forms of activity provide greater independence and freedom of choice [14];
- Expansion of the social environment, the sphere of contacts, and the circle of significant others [3];

Thus, the socio-cultural environment of an educational institution has a complex impact on the personality, professional

qualities, socio-psychological characteristics, and personal values of students as a whole social group. The life values of students depend on significant events in life and students' understanding (comprehension) of life values. In turn, they are a factor in the success of professional training and change in university studies.

In the learning process, the image of a professional is oriented toward the subjects of the educational process and directs the process of professionalization during the learning period [18]. Therefore, the question of the content of the image of a future specialist in students' minds is an important aspect of monitoring the process and results of professional education and professional development, the basis for predicting professional behavior, and the quality of the professional activity.

## 5 Conclusion

Modern changes, including a robust information environment, require prolonged self-improvement from a person, and especially from a future specialist. The world's rapid development and innovative outlook of the student youth on life prompted us to conduct this survey. For the students of the explored universities, it is extremely important to know the expectations of those people to whom professional services will be provided (in our case – agricultural, economic, medical, and educational branches). After all, in the context of European integration, the international community puts high demands on specialists of any profile, in particular: high level of education, general culture, fluency in foreign languages, etc.

Respondents' answers became for us the basis for the following conclusions. First, the positive image of the high school student covers the following traits, which we have organized into the following groups: education, responsibility, discipline, and communication skills.

Secondly, from the point of view of the respondents who participated in the survey, such qualities as irresponsibility, overconfidence, non-punctuality, ignoring the rules of behavior during the educational process, delay, indifference, and indifference reduce the quality of the educational process. Considering employers' requirements, future professionals should constantly work to create and improve their own positive image.

The prospect of further research lies in developing and implementing recommendations for forming a positive image of students of Higher Education Institutions.

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**Primary Paper Section: A**

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## THE ADVANTAGES OF A SYNERGISTIC APPROACH IN TRAINING STUDENTS OF SECOND-LEVEL EDUCATION IN HIGHER MILITARY SCHOOL

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**Abstract:** The article aims to substantiate the advantages of a synergistic approach in training students of second-level education in a higher military school. Studies of preparing students' issues in the indicated field are conducted by scientists using many general pedagogical approaches: systemic, cybernetic, humanistic, competence-based, and others. Each of these approaches is important for improving the specified process. Together, they originate the methodological foundation of training applicants for second-level education in a higher military school. But in many scientific works of foreign and domestic researchers, attention is not focused on applying a synergistic approach in preparing future military professionals. Therefore, it has prompted the scientific pursuit of this study.

**Keywords:** Development of the national and international security system, Future military professionals, Higher military school, Professional military education, Second-level education, Synergistic approach.

### 1 Introduction

In order to implement Ukraine's strategic course toward membership in the European Union and the North Atlantic Treaty Organization (from now on referred to as NATO), some reforms are being implemented [5], including in education. The military education system is an integral part of the national education system. The modern military and political conditions in which military education currently operates make it necessary to improve the system of training students to get higher education in military school, including those who receive education at the second (master's) level.

The professionalization of military education involves the formation of a modern model of professional military education [24], which ensures the training of military specialists based on their continuous professional development [26]. It considers the general trends in the development of the national and international security system, changes in the principles and methods of conducting armed struggle, new requirements for the quality of military education, and the formation of integrity based on NATO standards. Furthermore, professional military education cultivates the development of a military leader by providing a wide range of professional knowledge and developing creative thinking throughout an army career.

### 2 Literature Review

Various aspects of the problem of training military personnel are of interest to scientists and practical specialists of the Armed Forces and other components of the defense forces. Many works highlight the theoretical and methodical principles of training military-special disciplines for future masters of military-social management [12, 16, 25], the issue of training officers for professional interaction, socio-economic training of cadets and trainees in the process of continuous education at a higher military educational institution, and the formation of the professional culture of military personnel.

Foreign and domestic scientists investigated numerical studies in military education [4, 6, 14]. Biliavets and Sobko carried out studies on the formation of professional competence of military personnel; Serdiuk reviewed the integrity; Anatoliy Miroshnichenko researched methods of formation of professional commander competencies and training of officers to manage the primary units. In the studies mentioned by us and

others, scientists use different scientific approaches to justify their meaning. In particular, *systemic* (makes it possible to consider the process of training students of higher education in a higher military educational institution from the point of view of integrity, mutual enrichment and interdependence of its components [20], to reveal the structure of this process, the peculiarities of its organization (focus on qualitative and quantitative characteristics), the main mechanisms of its management; *functional* (presupposes the definition of the functions of training students of higher education in a higher military educational institution and the practical provision of their implementation in the practice of the educational process [17]; *personally oriented* (enables taking into account the individual characteristics of each student of higher education as a bearer of spiritual, moral and professional values, which he must embody in multifaceted self-realization under a time of patriotic activity); *humanistic* (presupposes the creation of conditions for personal self-realization); *competence* (puts forward specific requirements for the content of knowledge, abilities and skills necessary for the competent performance of professional tasks (sive activity)); *synergistic* (contributes to the strengthening of the connection between education and practice, coordinates the relationships between various components of the system of training applicants for higher education in a higher military educational institution based on dialogicity and interaction) [3].

Thus, Vozniuk analyzes the synergistic paradigm of learning the world, the formation and prominent features of pedagogical synergy as a new form of pedagogical reflection that conceptualizes designs and optimizes pedagogical systems based on synergistic principles, studies known pedagogical strategies regarding the presence of synergistic features in them. The author emphasizes that, even though many works have been devoted to the problems of synergy in education, such concepts as "pedagogical synergy" and "synergistic approach in education" have not yet received a straightforward interpretation in pedagogy and are at the stage of development and justification [27, p. 5].

The results of the analysis of the works of Balender, Bloschynskyi, Bkhinder, and others allow us to state that the training of officers of the armed forces and law enforcement agencies in educational institutions of foreign countries is based on the principles of the axiological approach, the concept of pragmatism, behaviorism, the humanistic paradigm, and the meritocratic idea. According to foreign military pedagogues-theoreticians Bell, Briggs, Gagne, and Royce, to improve the quality of higher military education, it is expedient to apply the approaches and principles of fundamentalization and interdisciplinary.

In the middle of the 20th century, the system approach became dominant in scientific knowledge and planning the development of society and its structures and substructures, including pedagogical ones. There are material and abstract systems. The first is divided into non-living systems and living systems. Abstract systems as a product of human thinking can also be divided into a number of different types depending on the chosen basis of classification: systems of the conceptual apparatus of research and systems of hypotheses of theories (this includes scientific knowledge about the systems themselves). There are static and dynamic systems. In static systems, the structure and connections remain unchanged over time; in dynamic systems, they are subject to change due to the influence of internal and external factors. According to the nature of the relationship with the environment, closed and open systems are distinguished.

At the present stage, both the general theory of systems and specialized ideas of systems in specific spheres and branches of life (including the theory of pedagogical systems) are actively developing [7]. Furthermore, a new interdisciplinary field of science – synergetics (from the Greek "*sinergeia*" –

commonwealth) studies self-organization processes in open systems, mainly social, economic, and pedagogical [8]. Synergetics reveals and investigates the qualities of systems, trends, and opportunities for their development builds and checks models of the growth of orderliness, structural complexity, and hierarchy of systems. Thus, we can consider that the system-synergistic approach makes it possible to form a holistic view of the world in general, the non-linearity of the processes taking place in it, and, in addition, to use the deductive method of assimilating the information field of modern sciences, which is extremely important in the conditions of the growth of information volumes, in including what concerns higher military education.

Drobin proposes to present the theoretical-conceptual "model of the formation of a synergistic product of education" in the form of a chain: "social order – the concept of synergistic education – the educational process – the formation of the product of education" [10, p. 83]. At the same time, it is through self-organization that the scientist proposes to consider the "model of formation of a synergistic product of education" [10, p. 83].

The literature analysis [22, 27] shows that the pedagogical adaptation of the ideas of synergy into the content of the training of students of higher education at the second level has some difficulties. There are not enough fundamental didactic studies of this problem regarding the content of higher military education. The practicality and relevance of introducing the ideas of synergy in the training of officers are determined by the presence in the practice of their professional activity of both traditional linear and nonlinear probabilistic synergistic thinking and stems from the contradictions between the need to implement a synergistic approach in the professional activity of officers and insufficient development of the original conceptual principles in the pedagogical theory pedagogical synergy; the declaration of a personally oriented learning paradigm and the lack of effective technologies for its implementation, and an open system of training students of higher education, the content of which should be multifaceted and varied.

### 3 Materials and Methods

In solving these tasks at the initial research stage, we applied the following empirical research methods: the study of documentation, pedagogical observation, and survey (interview, questionnaire, generalization of independent characteristics). These methods were used to search for actual material.

The observation method consisted of the direct perception of such a pedagogical phenomenon as training students of second-level education in a higher military school. We used observation not only as an independent method but with other approaches: observation during a conversation and observation during a group or individual study.

The survey method was implemented in the following forms: conversation, interview, and questionnaire. In addition, this method was used as an auxiliary method of pedagogical research to clarify the conclusions obtained by other methods.

Regarding the questionnaire method, a set of inquiries was arranged in content and form. The questionnaire method is relatively economical and allows you to analyze and process data using statistics. Therefore, this method was used in combination with other methods.

We also operated such research methods as comparison, assessment (expert assessment, self-assessment), creation of professional situations, and pedagogical experiment. With the help of comparison, peculiarities of applying different approaches were revealed.

It is known that using a pedagogical experiment facilitates the compelling study of pedagogical processes. The pedagogical experiment method is used in numerical studies [2, 29]. This method is of interest to our research, as it influences the process of training applicants for higher education at the second level in

a higher military institution. The experimental method in our study is associated with active intervention in the pedagogical situation through a synergistic approach and involves targeted observation. To conduct a pedagogical experiment, it was necessary to perform the following:

- Choose a base of experimental work;
- Determine the peculiarities of the selection of the experimental group (EG) and the control group (CG);
- Plan the required number of observations and the procedure for using research tools (methods and methodological techniques), forms and methods of collecting and registering results;
- Analyze and process experimental data;
- Perform statistical calculations;
- Interpret research results.

### 4 Results

The achievements of synergy open wide opportunities for modeling the system of higher military education with the help of methods applied to natural and exact sciences [23]. In order to develop an open system of training applicants at the second level, we studied the internal reasons for its natural development.

This is related to the implementation of the Concept of transformation of the military education system, which was adopted with the aim of "achieving a high level of operational interoperability, interdepartmental cooperation, coordinating the actions of the Armed Forces and other components of the defense forces according to NATO standards and procedures, staffing them with motivated, professional and educated personnel the composition adopted the Concept of transformation of the military education system" [5]. Synergy creates the necessary guidelines for scientific research, enriches their methodological base [28, p. 115].

Synergetics makes it possible to move from "linear" thinking, which has developed within the framework of a mechanical picture of the world, to a non-linear, appropriate new stage of the functioning of the educational space. Most of the objects studied by her are open, non-equilibrium systems governed by non-linear laws. All of them show the ability to self-organize, and their behavior is determined by the previous history of their evolution [9, p. 7]. In our research, such an object is training higher education students at the second level in a higher military educational institution. In the current conditions of instability and unpredictability of the world, the idea of non-linear thinking as multivariate and unpredictable can be helpful for the training of higher education applicants. Synergetics is focused on the search for universal laws of evolution of any educational system. Therefore, it can be a methodological basis for predictive and management activities in modern military education.

Based on the study of the works of modern scientists [27, 28, 29], one of the conditions for the implementation of a synergistic approach is the creation of an appropriate environment that contributes to the formation of a creative personality. We understand a synergistic environment as a set of material, spiritual factors and means in an open pedagogical system, in which, upon the interaction of those who teach and those who are taught, based on dynamic hierarchy and observation, there is a strengthening of cognitive actions, coordination of the pace and levels of development of those who are taught, the formation of a creative personality that combines rational and irrational components of thinking, has a holistic worldview and knows nature without rejection at the fundamental level [28].

The main components of a synergistic environment are informational and methodological, ergonomic, economic, and legal components, which, interacting, give a positive pedagogical result of forming a creative personality with a synergistic thinking style. We attribute the following to the main pedagogical, didactic, and psychological conditions that contribute to the formation of a synergistic thinking style [28]:

- The time-coordinated study of individual disciplines of the curriculum;
- Ensuring continuity in the development of concepts;
- The unity of internalization of general scientific concepts, filling them with reasonable content using hermeneutics;
- Implement a unified approach to disclosing the same class of concepts.

The same opinion is held by Nazarova and Shapovalenko [21, p. 3–6], who believe that overcoming linear thinking is one of the main conditions for involvement in the ideas of synergy and the possibility of using synergistic principles in pedagogical practice. A synergistic understanding of the world is essential for the education of a person, and also that a synergistic way of thinking is characterized by openness, dialogic, and communicativeness [28, p. 129], the formation of which is a mandatory program outcome of the study in educational programs at the second (master's) level. A synergistic approach can be used in education.

A person as an object of education should be understood as a complexly organized open system that exchanges matter and information with the same open natural and social world [15]. With this approach, the understanding of the content of education changes radically. In the synergistic sense, education is an objectless process; here, the subject and the object are identical. This is the construction of one's personality from the inside based on processing all available information. Synergetics as an educational methodology reveals a new understanding of the unity of humans, nature, and society. As a part of a self-developing system, a human cannot forcefully transform it without causing catastrophic consequences. Therefore, the education of the 21st century must overcome alienation from the world and return a person to his integrity.

Education based on these principles should save a person from technocratic pedagogy. In essence, this is a revolution in the foundations of education, which requires a rethinking of many value orientations, lifestyles, and thinking, without which the advancement of humanity to a new type of civilization is impossible [28, p. 134–135]. Synergetic methodology operates with such a concept as "synergy" (from the Greek "synergos," where "syn" means "together," and "ergos" is "action"), which has a cumulative effect. The interaction of two or more factors is characterized by their impact significantly outweighs the development of each component in the form of their simple sum. For example, interaction, combining the knowledge and efforts of several people, can be mutually reinforcing under the conditions of a particular organization. Thus, during their studies for the master's degree, students of higher education participate in command and staff exercises once a semester. From the standpoint of a synergistic approach, this is due to the optimization of educational systems with the help of academic and practical resources of pedagogical science [28].

This makes it possible to substantiate educational systems as a simple collection of various educational phenomena and as an evolutionary process, a coordinated interaction of all its elements (subsystems) [11, p. 82]. The importance of synergetics for the theory of training students of higher education at the second level in a higher military educational institution lies, first of all, in the fact that it deals with open, self-developing systems, which are interpreted quite broadly: it is any object that interacts with the world external to him, which affects the object, changing its structure and content according to unique patterns.

The factors of the pedagogical process are not constant. They change every day [19]. Moreover, even a slight change in one has significant consequences for others. This interdependence occurs at a synergistic level. Any informational changes that are caused by social, social, economic, political, etc. changes are reflected in the structure of the pedagogical process [1]. In our opinion, the main components of the system of training students of higher education at the second level are as follows: goal; content; principles; areas of training; training subjects; stages of preparation; forms and methods of practice; assessment and

correction of training results; relationships between the named components. Other training systems have a similar structure. At the same time, such systems are subsystems of the pedagogical system of a higher educational institution. In this case, training higher education students at the second level is part of the world.

Thanks to synergistic methodology, the result of a specific pedagogical action is analyzed in terms of the relationship between this action and the goal. In case of contradiction, corrections are made in the process of pedagogical activity for the purpose that determines it [13, p. 37]. Implementation of the principle of unity of didactics, experiment, and practical components of the educational process requires a synergistic approach. Based on a synergistic approach, the integration into a single complex of the components of the military education system involves interdepartmental coordination of the training of military specialists on defense issues, centralized training of operational and strategic level officers for the Armed Forces and other components of the defense forces, updating of professional standards, optimization of the network of military educational institutions and their structures, regulatory and legal support of relevant measures.

The basis of implementing the synergistic approach in education is the constant interaction of internal and external environments in the education system, which form the social order and the concept of its practical implementation [10, p. 84]. The internal environment is a complete system with separate elements with specific characteristics, structure, purpose, and tasks oriented toward the final product of education. Therefore, the educational process with the appropriate methods and means necessary for implementing the social order reflects a synergistic approach.

## 5 Discussion

The provisions mentioned above correspond to the tasks of the transformation of the military education system, which include the following:

- Development and implementation in the educational process of military educational institutions of updated educational programs aimed at forming a new style of military leadership and integrity, increasing the level of practical training and readiness for pre-professional activities, taking into account the needs of integration into NATO and own experience of conducting combat operations by the Armed Forces and other forces defense;
- Ensuring the implementation of the principle of "Education throughout the entire military career";
- Acceleration of the process of introduction of modern information, information and communication technologies, and distance learning technologies;
- Ensuring the quality of military education, implementing the responsibility of stakeholders for the implementation of educational activities, and implementing the legally established requirements for ensuring and guaranteeing the quality of education [5].

The system of military education includes such components as degrees and levels of education [24], levels of military education [25], fields of knowledge and specialties (subject areas of education and science, military accounting specialties) [26], educational standards and professional standards, educational programs, qualifications, license conditions, specialized institutions of military education and other subjects of scholarly activity, participants in the educational process, governing bodies in the field of military education [18], as well as normative legal acts regulating relations between them. Therefore, the training of those seeking education at the second level in a higher military school, taking into account a synergistic approach, is carried out within the framework of combined formal and informal education within educational programs following the standards of higher education, the list of fields of knowledge and specialties according to the relevant degrees of higher education (scientific degrees) and levels of military education. Within the formal education framework, it is

envisaged to obtain such degrees of higher education and scientific degrees as bachelor's, master's, Ph.D., and D.Sc.

According to the National Framework of Qualifications, the second level of higher education is the master's level, which provides for the acquisition by a person of in-depth theoretical and practical knowledge, abilities, and skills in the chosen specialty, the general principles of the methodology of scientific and professional activity, and other competencies sufficient for the effective performance of tasks of an innovative nature corresponding to the level of professional training.

The legislation determines the scope of the educational and professional master's training program at 90 hours and the academic and scientific training program at 120 hours. As for non-formal education, it is envisaged to acquire such levels of military education as tactical, operational, and strategic. The training of applicants for higher education, which is carried out in higher military institutions, provides for: (i) Obtaining a master's degree in higher education at the same time as getting a tactical level of military education; (ii) Obtaining a master's degree of higher education in the field of knowledge "Military Sciences, national security, state border security" in certain specialties after receiving an operational level of military education; (iii) Obtaining a master's degree of higher education in the field of knowledge "Military sciences, national security, security of the state border" in the specialty "National security (by separate areas of support and types of activities)" for the defense forces after obtaining a strategic level of military education.

Within the synergistic approach, the following is possible:

- A. Acquiring a master's degree in higher education and a tactical level of military education based on a bachelor's degree in higher education by cadets (students) in the educational and professional programs of the relevant specialties with simultaneous mastering of the educational programs of professional military education of the tactical level command course (L-1C).
- B. Acquiring a master's degree of higher education in the field of knowledge "Military Sciences, national security, security of the state border" in the specialties "Military management (by types of armed forces)," "Supply of troops (forces)," based on a higher education degree not lower than a bachelor's degree, including among those acquired in other fields of knowledge, by trainees who, within the framework of professional military education, have mastered the educational programs of the command course of the tactical level (L-1C), the command and staff course of the tactical level (L-2) and the course of officers of the joint staffs of the operational level (L-3).
- C. The master's degree of higher education in the field of knowledge "Military Sciences, national security, security of the state border" with the specialty "National security (by separate areas of support and types of activities)" is obtained based on the master's degree of higher education in other specialties, including other fields of knowledge, students who, within the framework of professional military education, mastered the educational programs of the course of officers of the joint staffs of the operational level (L-3) and the course of the senior management of the strategic level (L-4). In addition, the educational program of the strategic level (L-4) senior management course is a component of the master's academic program in this specialty.

The above makes it practical to use interdisciplinary connections. Interdisciplinarity is one of the signs of a synergistic approach.

## 6 Conclusion

Within the framework of our research, structural and logical schemes for the study of academic disciplines were developed to improve the process of training students in higher education. As the survey results confirm, in the experimental group, where

preparing students for education took place in compliance with the mentioned schemes, it was possible to achieve better results in the educational process.

Training students at the master's level in a higher military school based on a synergistic approach offers the modern system of military education an update based on the ability to understand reality and change it. Considering the synergistic approach's focus on the individual's self-development and the Concept of transforming the military education system in 2022, we believe it appropriate to use the synergistic approach as a fundamental method in contemporary education.

The prospect for further scientific research on the identified issues is the study of the role of the andragogic approach in preparing applicants for second-level education in a higher military school, taking into account gender aspects.

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**Primary Paper Section: A**

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## POST-TRAUMATIC STRESS DISORDER IN MILITARY PERSONNEL AND THEIR REHABILITATION

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**Abstract:** The article aims to submit the problem of the formation and characteristics of the manifestation of post-traumatic stress disorder in military personnel. A theoretical investigation of psychological aspects and mechanisms of the formation of post-traumatic stress disorder in military personnel who have experienced difficult situations of experienced activity is presented. It empirically reveals the features of the manifestation of post-traumatic stress disorder in military personnel in current conditions of military service. The significance of the psychological support program for military personnel with post-traumatic stress disorder, who have encountered extreme situations of professional activity aimed at working through traumatic ventures and activating the psychological resources of the individual, is shown. Intense conditions of professional activity negatively impact the mental health of service members, leading to the expansion of various mental disorders: post-traumatic stress disorders, psychosomatic and neurotic disorders, and addictive behavior. A high level of emotional disturbances characterizes military personnel participating in hostilities. Such violations are called psychoneurosis or combat fatigue. These emotional disturbances can manifest in acute fear, depressive states, and hysterical reactions.

**Keywords:** Mental correction, Mental disorders, Post-traumatic disorders, Psychological rehabilitation of military personnel, Psychological support, Stress.

### 1 Introduction

Ukrainian service members have been defending their land for the ninth year [17]. The hot phase of the Russian-Ukrainian war has been going on for more than a year. Violent and chaotic, which, even in the movies, will not be shown. The boundaries of the line of conflagration expanded from the Donetsk and Luhansk regions in the east, Chernihiv – in the north, and Mykolaiv – in the south. During the full-scale war, Ukrainian soldiers displaced the Russian invaders from the northern and partial southern directions. But the war continues and requires a lot of physical and moral resources, both from the civilian population and the soldiers.

Under the conditions of explosions, skirmishes, the rumble of military equipment, and being in occupation and captivity, the population of Ukraine, particularly military personnel, faced physical and psychological problems [2]. One of them is PTSD. Psychologists say that PTSD is a normal reaction to an abnormal situation. For example, after a traumatic event, losing faith or withdrawing from others, having bad memories, or having trouble sleeping is normal [30]. However, if the symptoms last over a few months and interfere with daily life, it may be PTSD. Its risk factors for development include: (i) wars and armed conflicts; (ii) monitoring the situation of the violent death of someone; (iii) serious accidents; (iv) physical or sexual abuse; (v) serious health problems or stay in intensive care; (vi) the presence of life-threatening disease; (vii) terrorist attacks; (viii)

natural or artificial disasters (for example, tsunamis or fires) [14].

The post-traumatic syndrome manifests itself in silence [36]. For example, when a military man returns home from a combat zone and finds himself in a state of rest. Extreme situations of professional activity negatively impact the mental health of service members, leading to the development of various mental disorders: post-traumatic stress disorders, psychosomatic and neurotic disorders, and addictive behavior. In addition, a high level of emotional disturbances characterizes military personnel participating in hostilities. Such violations are called psychoneurosis or combat fatigue. These emotional disturbances can manifest in acute fear, asthenic-depressive states, and hysterical reactions.

One of the psychological consequences of armed conflicts is combat post-traumatic stress disorder, which occurs in a significant part of combatants [13]. Post-traumatic stress disorder develops after an acute reaction to stress. It is characterized by confusion, fear, and nightmares; depressive reactions with anxiety disorders; reactions of a euphoric type with verbosity and substantial underestimation of the severity of one's bodily state. The duration of such conditions ranges from several weeks to several months. Incredibly persistent are depressive, obsessive-phobic disorders and sleep disturbances.

The clinical picture of post-traumatic stress disorder appears to be a combination of psychopathic (asocial, explosive, hysterical) behavioral conditions aggravated by alcoholism, drug use, and severe neurosis-like symptoms [32].

### 2 Literature Review

The problem of studying, diagnosing, and correcting negative psychological consequences resulting from the impact of stress factors, the sources of which are various traumatic events, is one of the most relevant [23]. This forced psychologists to come to grips with the victims' rehabilitation problems [1, 24, 37]. Participants in armed conflicts in Ukraine and worldwide, where there are many hotbeds of tension accompanied by active hostilities, need special attention [15]. An increasing number of service members are involved in resolving these conflicts and participating in battles. The military operations experience shows that the troops, along with physical losses, suffer tangible psychological losses. They are associated with military personnel getting mental trauma, leading to mental disorders and complete or partial loss of combat capability.

Studies by scientists have shown that a significant severity of such qualities as open aggressiveness, auto-aggression, impulsivity, depressive and psychosomatic forms of response in difficult situations, social alienation, the predominance of inhibitory processes over excitation processes in the nervous system can collectively manifest as a syndrome of post-traumatic stress disorder in military personnel [21, 25, 32].

Military personnel with post-traumatic stress disorder significantly reduce the effectiveness of their professional activities and satisfaction with their lives in general [29]. There are significant difficulties in adapting to civilian life [20, 33, 34, 35]. In the occurrence of post-traumatic stress disorders, the role of the personality of a serviceman is excellent. Extreme situations of professional activity experienced by service members lead to mental disorders only if they occupy an important place in the system of the individual's relationship to reality. The individual is not ready to adapt to these difficult conditions due to the inharmoniousness of the relationship system – self-doubt or excessive self-directedness, anxiety, pessimism, indecision or desire for dominance, aggressiveness, self-centeredness, indifference to other people and distrust of them [8].

Military personnel is mobilized when they are on the front line [32]. A person has no time to think about many things. His brain represses these experiences. Then the person returns home and begins to calm down a little. During this period, mobilization mechanisms cease to operate, and changes occur in a hostilities participant's psyche [19]. Not all military personnel who have gone through heavy combat have something similar to this disorder. However, there are, for example, individual violations of adaptation when a person does not have time to reorganize in a non-military way. Also, a person may not have PTSD, but there may be depression, ranging from space fatigue and chemical exhaustion, ending with the fact that he misses his dead comrades [22]. Therefore, each situation must be dealt with separately.

PTSD is a disorder resulting from traumatic experiences [28]. If this experience is not comprehended, a person cannot adapt typically. Therefore, in any case, with any combination of symptoms, it will be a PTSD-related case.

Symptoms of PTSD in military personnel appear within a few months from the moment of traumatization. However, in many cases, spontaneous recovery occurs: within 12 months after the injury, one-third of the victims get rid of the symptoms of stress and post-stress disorder, and four years after the injury, half of the victims have a complete absence of complaints [3]. This indicates the enormous role of social factors in helping to overcome traumatic stress conditions and in the formation of PTSD in the lack of psychological support and understanding of the people around.

Undoubtedly, military personnel with post-traumatic stress disorder need psychological help aimed at experiencing psychological trauma, the formation of skills and abilities of psychological relaxation and restoring body resources, and training in self-regulation techniques in various stressful situations [9].

### 3 Materials and Methods

The method of providing psychological assistance to military personnel with post-traumatic stress disorder is psychological support, which makes it possible to provide support to military personnel during the entire rehabilitation period [17]. Today, psychological support is understood by psychologists as support for mentally healthy people who have difficulties at a particular stage of their life path [37]. A distinctive feature of psychological support from other types of psychological assistance is the support of naturally developing reactions, processes, and states of the individual psychological aid is carried out under the laws of development, gradually opening up prospects for self-development, self-knowledge, and self-realization of the individual. As a result of psychological support, conditions are created for a person's transition from help from outside to self-help to forming a life position "I can cope with my difficulties myself."

The mechanisms of the formation of post-traumatic stress disorder and the main directions of psychological assistance to military personnel are described in theoretical models of the formation of post-traumatic stress disorder [5].

Currently, no single generally accepted theoretical concept explains the etiology and mechanisms of the onset and development of PTSD. However, several theoretical models have been developed from many years of research, among which we can distinguish: psychodynamic, cognitive, psychosocial, and psychobiological approaches and the multifactorial theory of PTSD developed in recent years [26, 27].

An analysis of theoretical approaches [4, 32] allows us to identify the following strategies for overcoming post-traumatic stress disorder in military personnel in the process of their psychological support:

A. Purposeful return to memories of the traumatic event to analyze it and fully understand the trauma's circumstances;

- B. Awareness by the bearer of the traumatic experience of the significance of the traumatic event;
- C. Cognitive assessment and reassessment of traumatic experience;
- D. Social support of others;
- E. Activating personal resources for the individual and developing productive coping strategies.

The study aimed to develop and test a psychological support program for service members with post-traumatic stress disorder who have experienced extreme situations of professional activity.

In light of current events [2, 7, 18], there is a need to create a state system for the comprehensive rehabilitation of military personnel taking or taking part in hostilities and who have suffered combat mental trauma. The creation of such a system will make it possible to purposefully carry out measures to ensure the safety of the physical and psychological health of military personnel, prevent post-stress reactions, and help maintain the readiness of personnel to perform tasks in any situation [11].

Psychological rehabilitation is a system of psychological, pedagogical, and socio-psychological measures aimed at restoring or compensating for impaired psychological functions, conditions, and personal and social status of people who have received a mental injury [30]. In addition, psychological rehabilitation aims to assist a service member in restoring optimal mental health for continuing professional activities.

### 4 Results

Military personnel with noticeable signs of post-traumatic stress disorder have a moderate severity of the symptom of invasion of experienced traumatic situations, a high severity of the symptom of avoiding traumatic situations, and moderate physiological excitability. Feelings of guilt and a tendency to suicidal behavior are moderately expressed. They show the cyclothymic of emotions: emotional detachment is replaced by emotional affect. There is sleep disturbance, anxiety, increased emotional lability, aggressiveness, and a significant decrease in mood [6].

For military personnel with signs of post-traumatic stress disorder, anxious, neurotic states are characteristic [12]. In addition, symptoms of chronic asthenia and neurotic depression, anxiety, and obsessive-phobic and vegetative disorders are significantly expressed. Military personnel who do not have signs of post-traumatic stress disorder do not have symptoms of post-traumatic stress disorder and anxiety neurotic states.

The psycho-emotional state of military personnel with apparent signs of post-traumatic stress disorder is unfavorable. A decrease in autonomy; an increase in concentricity; a focus on one's problems; a tendency to reflect were revealed; a violation of the balance of personality traits are characteristics that indicate the instability of the emotional-volitional sphere of the personality, the predominance of the tone of the parasympathetic nervous system [21]. In addition, stress is expressed in decreased performance, well-being, activity, and mood.

The psycho-emotional state of military personnel who do not have signs of post-traumatic stress disorder is favorable. Heteronomousness, eccentricity, the balance of personality traits and the autonomic nervous system, minimal signs of stress, complementary health, positive mood, and high activity are observed [31].

Extreme situations of professional activity contribute to the exacerbation of character accentuations: excitable, stuck, and temperament: anxious, dysthymic, and cyclothymic in military personnel, which is a significant sign of a decrease in the adaptive capabilities of the individual and the manifestation of post-traumatic stress disorder. After experiencing extreme situations of professional activity, stress disorder shows situational and personal anxiety, behavioral rigidity,

emotionality, resentment, sensitivity to criticism, a tendency to reflect and phase mood changes, and pessimism.

In the second stage of the study, a program of psychological support was developed for military personnel with post-traumatic stress disorder who experienced extreme situations of professional activity, aimed at working through traumatic experiences and activating the psychological resources of the individual. The program included individual psychological consultations for service members and group psycho-corrective work. At this stage, the priority methods are conversation, discussion, role-playing, Gestalt therapy techniques, neuro-linguistic programming, body-oriented psychotherapy, art therapy, meditative practices, breathing exercises, autogenic training, and deep muscle relaxation. In addition, the program should include individual consultations for military personnel and group psycho-correction, which provides for certain classes.

The effectiveness of the program of psychological support of service members with post-traumatic stress disorder is determined by repeated psychodiagnostic examination of the experimental and control groups using the methods used at the first stage and comparing the results before and after psychological support.

Military personnel with post-traumatic stress disorder, who have completed an entire course of psychological support, should come to the following results:

- Reduced symptoms of post-traumatic stress disorder and the overall severity of PTSD;
- Improvement of the psycho-emotional state.
- Reducing the presence of a stressful state, increasing emotional and volitional stability (balance of personality traits, balance of the autonomic system, autonomy, and eccentricity);
- Decreased accentuation of personality traits, manifested in increased emotional stability, behavioral flexibility, and decreased situational and personal anxiety.

Such results will indicate an increase in the individual's adaptive potential [7] and stress resistance in extreme situations of professional activity [22].

A conversation with military personnel can determine their well-being, level of activity and performance, mood, the presence of anxiety neurotic disorders, and the level of emotional and volitional stability. As a result, military personnel can practice the skills of emotional and voluntary self-regulation and develop productive strategies for coping with stress. This will contribute to the activation of the adaptive potential of military personnel. Thus, psychological support for the personality of military personnel who have experienced extreme situations of professional activity, aimed at working through traumatic experiences and activating psychological resources, helps reduce their post-traumatic stress disorder symptoms.

In the course of the study, two main directions can be formed in the development of practical recommendations:

- Introduction into the practice of military psychologists of methods for diagnosing PTSD and the use of a broader range of psycho-corrective measures;
- Formation in military personnel of the skills and abilities of psychological relaxation, restoration of body resources, and training in self-regulation techniques in various stressful situations.

## 5 Discussion

Psychological rehabilitation should include the following key stages:

*Diagnostic stage* – the study of the nature of the psychological problems that military personnel have and the degree of influence of these problems on their mental health and vital

activity [1]. The objectives of studying the mental state of service members exposed to combat stress are:

- A. Determination of the presence, composition, and severity of the identified negative psychological consequences of combat stress;
- B. Finding out the reasons for their occurrence and persistence;
- C. Establishing the effectiveness of ways for a service member to cope with the negative psychological consequences of combat stress;
- D. Determining the practicality of using specific methods of psychological assistance to a particular service member.

The process of carrying out a diagnostic conversation is possible if the communication barrier is overcome, which, as a rule, arises among military personnel regarding information related to the traumatic experience they have experienced [19]. Conducting a diagnostic conversation allows military personnel to talk about what happened to them in a psycho-traumatic environment of combat activity, to react to emotions associated with a period of their life that is hard to remember, to look at what happened as if from the outside, to restore a holistic picture of events significant for their current mental state, and have a deeper understanding (or rethinking) of what they experienced in a traumatic situation and how it affected their subsequent actions, life, and health. A full-fledged diagnostic conversation also contributes to the psychological preparation of military personnel for further participation, if necessary, in rehabilitation work.

The *psychological stage* implies the purposeful use of specific methods of influencing the psyche of rehabilitated service members [16].

The *readaptation stage* is carried out mainly during specific rehabilitation [38].

The providing psychological assistance includes observation of military personnel, their counseling, and, if necessary, the provision of additional psychological aid to them after the phase of psychological rehabilitation. The main principles of psychological rehabilitation are: (i) efficiency; (ii) consistency; (iii) flexibility; (iv) multistage [10].

The first means the expediency of providing psychological assistance shortly after the end of the impact of the stresses of combat activity. The second is the use of methods that allow for a complex and interconnected effect on the psyche of military personnel based on the structure of the primary forms of manifestation of the negative consequences of combat stress. The third is the time change in the forms and methods of psychological influence, depending on the mental state of military personnel and the conditions for psychological rehabilitation. The fourth is the operational use of points and centers for psychological rehabilitation, depending on the complexity of the tasks solved in the rehabilitation process.

Psychological assistance to military personnel can be provided individually and in a psychotherapeutic group [28]. Individual psychotherapy can be based on a psychotherapeutic training approach that includes six main components:

- Correction of the most common misconceptions regarding the stress response;
- Provide the patient with information about the nature of the stress reaction;
- Focus on the role of excessive stress in the development of the disease;
- Bringing the patient to independent awareness of the manifestation of the stress reaction and the characteristic symptoms of PTSD;
- Development of the patient's ability to introspect to identify stresses characteristic of him;
- Communication with the patient about the active role that he plays in the treatment of excessive stress.

Post-traumatic symptoms have a detrimental effect on relationships with other people [5]. Uncontrollable anger,

emotional withdrawal, and an inability to communicate appropriately with representatives of social institutions of power complicate the relationship between those who have been traumatized and those who come into contact with them in life. As a result, the three-phase model of group psychotherapy becomes relevant. In the first phase of therapy, "understanding groups" are formed, consisting exclusively of those who have received severe mental trauma. In the second phase, at least 2-3 new individuals join the group, the diagnosis of which is somewhat different. The resulting group is called "psychotherapeutic." Introducing new members contributes to the emotional outburst of the most disorganized patients with traumatized "I." The result of such a therapeutic maneuver is usually the irritable behavior of the group members, the weakening of the "we-feeling," and the anger associated with the fact that the group members are faced with the "real" world and its complexities. However, under the guidance of a psychotherapist, group members gradually learn to manage their anger and analyze their experiences, after which they move into the third phase, i.e., into a "psychoanalytically oriented group."

Relationships in the family are significant for the psychosocial adaptation of the traumatized [37]. Speaking about working with the families of combatants, there are two aspects: a) working with them as one of the most significant factors in psycho-rehabilitation and psychological assistance to those who returned from the war; b) the provision of direct psychological assistance to the members of the families of those who fought [2].

One of the main directions within the framework of this program should be to work with the families of military personnel before their return, holding seminars and disseminating the following recommendations:

- A. It is paramount to carefully listen to your partner's stories about what he had to endure. Also, it is imperative to let him speak out in a comfortable atmosphere of moral support for a loved one.
- B. Try to help psychologically return to everyday, familiar life.
- C. Show attention and patience to the problems of a loved one that inevitably arise after combat stress, to his psychological discomfort, increased irritability, a possible long-term depressive state, etc. This is a temporary phenomenon; help him cope with it.
- D. It must be borne in mind that it has been changed somewhat during the separation, and it takes some time to get used to each other again.
- E. Pay special attention to children. It is essential to restore relations with due attention and care.
- F. Create a favorable environment.
- G. Do not encourage the use of alcohol.

There should be active questioning and compassionate and attentive listening to the most unpleasant experiences – this reduces affective tension and structured experiences and activates the purposeful activity of the victims [28]. The result is:

- Change of attitude to the situation as one of the possible already happened, become a reality;
- Relaxation;
- Increase in the threshold of sensitivity to the psychogenic factor;
- Response;
- Emotional support;
- Tactile contact with the victim.

In addition, various methods and techniques of psychodynamic, behavioral, cognitive, and hypnosuggestive therapy, gestalt therapy, neurolinguistic programming, art and creative self-expression therapy, logotherapy, transactional analysis, psychodrama, acupuncture, and other techniques are used [18]. The methods are focused on the following:

- Awareness and understanding of those events that caused the current mental state;
- Reacting to experiences associated with memories of psycho-traumatic events of combat activity;

- Acceptance of what happened as an integral part of life experience;
- Actualization of coping behavior necessary to overcome the negative consequences of combat stress and readaptation to the changed internal and external conditions of life.

Thus, psychological rehabilitation is an essential component of psychological work in current conditions of military service [10]. Unfortunately, it is impossible to avoid psychological trauma among military personnel in combat. However, with the help of psycho-prophylactic measures, it is possible to reduce the percentage of psychological losses through the timely provision of psychological assistance and the implementation of rehabilitation measures.

### 5.1 Foreign Experience

To complete the study of the problem, the experience of other countries is also of interest. For example, according to a psychologist at the American Center for Anxiety Disorders of the Life Institute, there is a national system of hospitals in the United States for treating military personnel and veterans with post-traumatic stress disorder. The two most common and effective treatments are long-term exposure therapy and cognitive processing therapy. Both are very effective and can be taught to many psychologists. But in my experience, active-duty soldiers usually don't receive treatment until they leave the military [3].

Long-term exposure therapy is helpful when it is tough for someone to deal with what happened during a single traumatic event. Here the person describes over and over what happened during the traumatic event under the guidance of a qualified professional to help them emotionally process what happened [36]. Cognitive processing therapy, in turn, focuses on problematic changes in how one perceives oneself, the world, and other people after a traumatic event [4]. This is a valuable therapy for people who have experienced multiple traumatic events that affect them at different levels but find it difficult to distinguish between traumas.

The average American usually knows that many veterans struggle with PTSD but are not openly engaged because therapy is most often done in hospitals where only veterans can go. Nevertheless, the main focus is on specialized institutions and specialists who can assist the victims. However, the social factor is also essential. For example, some Ukrainian brands have supported the employment of veterans returning from the front [7]. While it doesn't cure PTSD, things like building social support, structured activities, and the like are generally suitable for healthy mental well-being. In addition, films about PTSD are being made in the United States, lectures are actively held on the topic, and June 27 is National PTSD Awareness Day. That is, the population pays attention that there is such a problem [15].

The Israeli experience, in turn, relies on the fact that soldiers returning from the war do not need to wait until the symptoms of the post-traumatic disorder appear but immediately contact specialists. The country also operates the MAGEN program, during which soldiers learn emotional support skills. This is done to support each other in difficult moments and prevent the development of PTSD [6].

Today, Ukrainian society must prepare the conditions for the return of the military from the front home [10]. In addition to the preparation of various programs at the state level, there should be a social component – lectures, training for relatives and friends of military personnel, or just caring people. The more people understand that the military needs time to return to normal life, the faster the military will return to it.

### 6 Conclusion

Post-traumatic stress disorder for most participants in armed conflicts is one of the main internal barriers to social adaptation in society. In most cases, the return to civilian life is

accompanied by new stress factors associated with the difficulties of adaptation (misunderstanding of others, challenges in communication, professional self-determination, etc.). It should also be taken into account that in military personnel, post-traumatic stress disorder is also superimposed by such additional negative social factors as low quality of life, material disadvantage, and uncertainty about the future.

It is recommended to use the methods of neuro-linguistic programming, Ericksonian hypnosis, body-oriented therapy, and the Imago-therapy exercises to develop the skills and abilities of psychological relaxation, restore the body's resources and teach self-regulation techniques in various stressful situations. As part of body-oriented therapy, the exercises of tense postures, the Lowen tilt, and the release of anger can be used too.

The data obtained in the study, the developed program of psychological support for service members with post-traumatic stress disorder who have experienced extreme situations of professional activity, aimed at working through traumatic experiences and activating the psychological resources of the individual, can be used by psychologists in working with personnel serving in extreme conditions.

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**Primary Paper Section: A**

**Secondary Paper Section: AN**

## INNOVATIVE TECHNOLOGIES IN ARCHITECTURE AND DESIGN ACTIVITIES AS AN "EDUCATION-SCIENCE-PRODUCTION" SYSTEM

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**Abstract:** The article aims to reveal innovative methods to develop imaginative thinking in future architects-designers, their imagination, without which it is impossible to create something new, as well as methods of forming critical thinking. The indicated above forms the worldview of young people. It gives them an understanding of themselves and the search for their place globally, significantly when these issues are exacerbated in crisis periods, such as the present time. The research explores problematic aspects in the formation of knowledge and competencies of future architects and architect-designers. Today, the issue of training professional architect-designers in the specialty "191: Architecture and Urban Planning" of the educational program "Architecture of Buildings and Structures" and "Design of Architectural Environment" is becoming critical.

**Keywords:** Architectural education, Architecture and design activities, Creation of the architectural environment, Future architects-designers, Innovative technologies, Teaching methods, Training of professionals.

### 1 Introduction

Education programs in architecture and design activities must correspond to dynamic changes in society in matters of state reconstruction in connection with the aggression of Russia, which has unleashed a war on the territory of Ukraine and is destroying cities and towns, infrastructure, and linear networks. Against the backdrop of the war in Ukraine, future architects-designers must professionally face challenges in the world's globalized field: quickly respond to social, economic, manufactured, energy-efficient, and other global problems of society from the point of view of their priority.

The problems mentioned above do not remove general societal issues from the architect-designer-professional in his responsibility for forming a safe architectural environment based on sustainable development [26].

Therefore, students should acquire the ability to identify problems and analytically approach their solution [5], and at the same time, take into account issues of a humanitarian nature (with high technological processes), namely:

- Think imaginatively in the categories of general culture and ethnocultural values.
- Possess critical thinking to reflect on understanding oneself as a professional and one's place in the world.
- Have communication skills.
- Develop emotional intelligence and technical skills (with the help of disciplines collectively known as STEM/CS).

All this contributes to the formation of a worldview and the general character of a person. Therefore, students should have the sense to pursue and understand the values of their activity and their responsibility for it, to learn continuously throughout their lives because this is a new reality for the average office worker of the 21st century due to the development of technologies and innovations, as predicts the World Economic Forum (WEF).

These tasks, to one degree or another, coincide with the general criteria of today's leading architect-designers of the world regarding the competencies of an architect-designer, a graduate of a university [13]:

- A high level of erudition and interdisciplinary thinking – the ability to analyze and synthesize extensive scientific research with the identification of priority problems of the architectural environment, both general and specific;
- The ability to think creatively and optimally solve identified problems;
- Quick response to dynamic changes in society, in the construction industry, in the world;
- Effective and fast use of RAM, as well as agreed knowledge of a universal nature;
- Operation of imagery and metaphor as tools of high design in shaping the aesthetics of the architectural environment;
- Effective use of graphic language, both applied and computer-based.

These theses emphasize the broad general erudition of architect-designers (leading construction professionals), which has been accumulated over the years.

### 2 Literature Review

In the framework of a higher school, in addition to the accumulation of technical knowledge, the development of imaginative thinking of students, the product of their imagination, critical thinking, the formation of the worldview of a student-architect-designer as a designer of our future, is the most important goal [12]. All these issues increase the responsibility of teachers to activate the educational process in the "education-science-production" system, using innovative technologies in architecture and design education as a basis for future activities.

It is not the presentation of individual scientific facts that becomes relevant, but their interpretation in cause-and-effect relationships and connections through the active resolution of crises and problems [25]. Therefore, education should be directed to intellectual development, which leads to the mutually agreed formation of professional, both essential, fundamental, and applied foundations of architectural education [14]. Consequently, it recreates a role of a scientific component and acts as a base for human development.

Education, especially in architecture, has always been a strategic resource for the evolution of civilization, which progresses only when education progresses [23]. Today, the traditional system of architectural education in Ukraine, as a system of training a specialist with structural-spatial thinking, requires modernization and new training methods and techniques in connection with the change and development of civilizational processes. This is also the rapid development of computer and information technologies: generative design, methods of parametric design, a network organization of project culture, etc., as well as the issue of the general transition to distance learning – online teaching related to COVID-19, the period of which, continues for the fourth year, and is getting worse in connection with Russia's aggression.

And if the first problem is solved by the modernization of information [4] and computer systems and students' assimilation of new software products [10], then the second problem is more complicated. It can be considered from several positions: on the one hand, the methods remain traditional; on the other hand, such an innovative education model as interactivity has been developed in a few years [13]. In education, its use involves (i) modeling life situations in which the student consciously and professionally participates; (ii) the use of role-playing games; (iii) joint problem-solving.

From the object of influence, the student becomes the subject of interaction [7]. He actively participates in the learning process, following his route. The term "interactive" means a particular form of organizing cognitive and productive activity. It suggests



specific and predictable goals. One of these goals is to create comfortable learning conditions in which the student feels his success and intellectual ability, making the learning process productive.

Several pedagogical models of the organization of architectural education, such as passive (the role of the "object" of learning (listens, watches, repeats), active (acting as the "subject" of knowledge (independent work, creative tasks), and interactive) [29]. The last one is chosen as a system of interactions: "architect-designer-moderator — student-architect-designer — students of the group." Interactive learning technologies are based on a personal-activity approach. They include non-situational (dialogue) and situational teaching methods (interactive gaming methods – simulation, non-simulation; non-gaming interactive methods – analysis and modeling of project situations, etc.)

During interactive learning, there is mutual learning (collective, group, cooperative learning), where the student, the teacher, and the group of students are equal subjects of education. During interactive training, the teacher, a consultant, organizes the learning process. The main thing in the learning process is the interaction between students and the teacher – cooperation between participants. Learning outcomes are achieved through the mutual efforts of participants in the learning process; students take responsibility for learning outcomes [19].

In the process of communication, students learn to solve complex problems based on the analysis of source data; identify contradictions; express alternative opinions; make balanced decisions; participate in discussions; simulate different social situations; enrich their social experience through inclusion in different life situations and experience them; learn to build constructive relationships in the group and determine one's place in it; learn to avoid conflicts or resolve them; seek compromises; strive for dialogue; find a joint solution to the problem; to develop the skills of project activity; to work independently; perform creative works [21].

### 3 Materials and Methods

Group educational activities in the interactive field of architectural education have shown their effectiveness this year. Therefore, we can consider the means and methods that, in our opinion, were revealed above and are aimed, first of all, at the development of imaginative thinking, imagination, the student's understanding of himself as such, and finding his place in the world, and secondly, the formation of highly cultured professional project activity.

The system "architect-designer-moderator — student-architect-designer — students of the group" was tested at the Department of Architecture of Buildings and Structures and Architectural Environment Design in Educational and Scientific Institute of "Architecture, Design and Fine Art" of O. M. Beketov National University of Urban Economy in Kharkiv on the 3rd, 4th, 5th and 6th courses in such disciplines as architectural design, basics of architectural environment design, basics of scientific research, media architecture and parametric design, complex architectural design, presentation of an architectural project.

These interconnected disciplines lead to the "education-science-production" system because architectural design and urban planning are based on the actual place of design, the definition of its fundamental problems, and their solution in architectural-urban-planning, architectural-design projects presented below.

Thus, in the 3rd year, several classes were held on the discipline "Fundamentals of architectural environment design" when a large-scale invasion of the aggressor took place on the territory of sovereign Ukraine. Some students were forced to change their place of residence. All of Ukraine came under enemy fire.

In these conditions, it was necessary to calm the students psychologically [27] and not lose the high level of their professional training. Therefore, the following tasks were proposed that used interactive methods, such as transmitting information using a lecture-discussion (Figure 1).



Fine art in the natural world - Fashion inspires from all sources. However, the synergy between fashion designers and architects is unparalleled. Architecture makes gifted art, while fashion gives us the art of wearing.



Figure 1 – Architecture and fashion (examples of slides from the presentation)

This lecture was followed by a practical session on the topic "How architecture inspires fashion, and fashion inspires

architecture." A certain task for Student Project was set (Figure 2).

#### DESIGN OF ARCHITECTURAL ENVIRONMENT AS A SPECIAL FORM OF PROJECT ACTIVITY PRACTICUM

##### TASK 1. IMAGINARY INTERPRETATION OF ARCHITECTURAL OBJECTS AND FASHION

**Goal:** To develop a project, "Fashion design as derivative architecture that will emphasize my individuality"

##### Tasks:

1. View the file "Fashion and architecture.pdf," online resources:  
<https://design-mate.ru/read/an-experience/fashion-and-architecture>  
<https://design-mate.ru/read/clothes-of-the-future>  
<https://www.clouty.ru/articles/pochemu-moda-i-arkhitektura-kopiruyut-drug-druga>

2. View (optionally) architectural masterpieces of all times and peoples and choose an architectural object (or style, detail, or interior) that figuratively belongs to your "I."
3. Analyze (briefly) why the chosen architecture appeals to you or expresses you; what are your "I" features, and how are they reflected in it?
4. Develop a concept form-model of a costume (in a broad sense: dress, overalls, hat, bag - fashion) for yourself.

**The object of research:** "I" – as individuality

**Subject:** searching for one's individual "I" through a design project integrating fashion and architecture

**Execution:** any 2D, 3D execution method is chosen

1. On A3 sheets, develop a fashion model for yourself through the perception of an architectural structure or architectural environment.
2. Present your design project briefly (up to two pages) on A4, in Times New Roman, 14 font, 2x2x2 margins, 1.5 spacing.

\*\*\* - you can present the project in PowerPoint.

Figure 2 – Task 1 was aimed at relieving stress and professional analysis of architectural and model masterpieces [27]

Student Project was based on the following methods:

- A. Interiorization (from the Latin interior – internal) is a psychological concept that means the formation of mental actions and the inner plane of consciousness through the individual's assimilation of external activities with objects and social forms of communication;
- B. Exteriorization (from the Latin exterior – external) is a process that is the opposite of interiorization, meaning a transition from the inside to the outside; a psychological concept that represents the transition of actions from an internal and collapsed form to the form of an expanded action. Examples of exteriorization: objectifying our ideas; creating an object according to a previously developed plan [6, 22, 30].

#### 4 Results and Discussion

Most students chose graphics and layout and wrote an essay about themselves. The technique of "Looking at oneself from the outside" forms critical thinking and gives a person a better understanding of himself and the world around him. When a person writes about himself, how he sees himself or feels, connecting himself with his image through clothing based on architecture, he is also thinking interdisciplinary. The individuality needs to immerse himself in world architecture, see herself in it (identify her image with objects), analyze herself as a consumer and researcher, and act as a designer in search of the individual "I." The students' projects are confirmed by scientific research on these issues (Figures 3, 4, 5, 6, 7, 8, 9, 10, 11, 12).



Figure 3 – General self-presentation: the effect of "estrangement" (according to Shklovsky)

According to Shklovsky, "estrangement" (elimination) is the "extraction of a thing from automatic perception," which is considered a specific technique of literary and artistic creativity; in the terminology of one of the leaders of the formalist school, was defined as "reception" [24]. Shklovsky wrote that "the purpose of art is to give the feeling of a thing as vision, not as recognition." A work of art allows one to perceive reality immediately, beyond usual ideas and generally accepted

stereotypes. The freshness and expressiveness of the contact with reality are felt as a consequence of the objectivity of the material and the explicitness of the method of its transformation into a work of art. Shklovsky believed that "art is a way to experience the making of a thing." As examples of this theory, literary material was used: the prose of Tolstoy, Gogol, and Knut Hamsun, as well as Ukrainian folklore [9].



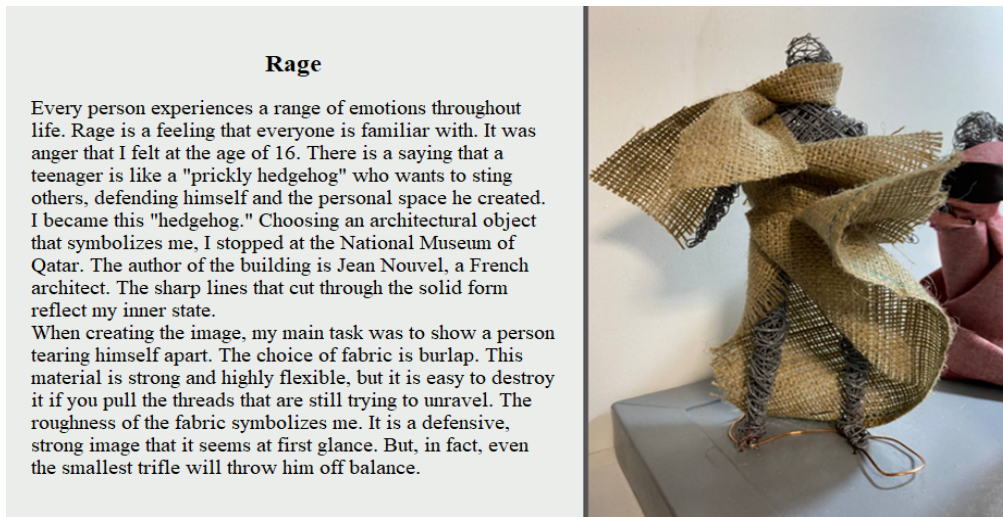


Figure 4 –The "reflection" method. The student contemplates herself from the past, looking for reviews of herself in architecture



Figure 5 –The method of "identification." The student associates herself at 16 with Nouvel's architectural structure



Figure 6 –The image of "Rage"

In this context, what Nouvel himself says about his creation and architectural creativity becomes interesting: "I always wanted a whole neighborhood rather than a single building. So I started with interconnected blocks of different sizes, inspired by the

white Arab cities (the word medina). This concept provided the necessary plasticity, but I still did not have complete freedom; I determined some changes, and the situation and partners determined others. This is not architecture for architecture's

sake; architecture should be connected with ideas, with the spirit of the place" [16].

Architect-designers increasingly face the problem: developers choose one architect-designer to create the building itself, and another for the interior design. I proposed a palace concept with characteristic proportions and materials that evolve with its contents. In addition, the customer and the team of curators, and I thought very actively and in detail about how to enrich this project with a scientific and cultural program [16].

As the architect-designer himself told in an interview with The Art Newspaper in his Paris workshop, even though today the museum is surrounded by a modern urban landscape, it is still influenced by the desert and the sea.

This served as a source of inspiration for Nouvel, who based his design on the image of the "desert rose," which resembles a

flower with a crystalline structure, which he considers "the most powerful symbol of the desert and the influence of wind, time and sand." He is intrigued by the mysterious shape of the crystal: "Why do these blade-like petals overlap each other so chaotically?" [17, 18].

There is an exciting point in our perception of this work: the contrasts of the desert and the sea are reflected in the power of the "desert rose" flower, which resists their influence with its fragile petals.

This gave rise to Nouvel's image of a museum, both its external and internal architecture and design. The current student analyzes her sixteen-year-old self as a raging girl who opposes the world (parents, etc.), identifying herself as a "prickly hedgehog." Both the spines of the hedgehog and the sharp edges of the museum are similar in a figurative sense.

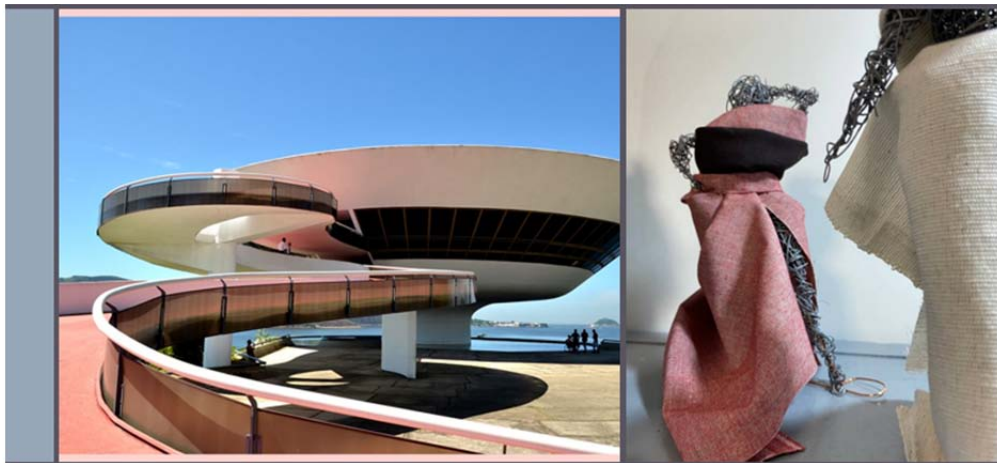


Figure 7 – The search for self and balance. "Criticism," "game," and "discussion" methods

The student writes: "Pink fabric immediately attracts attention and stands out. Calm but simultaneously, dynamic folds repeat the road designed by Oskar Niemeyer in his project. A specially opened leg became the main accent in the image. This frankness

seems to be playing with others. When this feeling goes beyond the scope and becomes the main thing, something needs to be changed."

<b>Lightness</b>	
	<p>The third stage of my life is lightness. Each of us knows the feeling of weightlessness. We float in this world, wanting to give others smiles and a positive mood. The architectural object for the image was the Milwaukee Art Museum, created by the architectural genius Santiago Calatrava. My image is the image of naivety. The materials were tulle and strong white fabric covering the legs and bust. Threads repeat the art museum and strive upwards. If we pay attention to the pose of the image, we can notice the openness of this world. The girl stands on her tiptoes and reaches up with one hand as if she wants to become even higher – to break away from the ground. The gray tulle, which barely covers the figure, represents vulnerability (a kind of nudity). However, after every rise, there are falls. The main disadvantage of the image I created is insecurity. Everyone can cause injury and harm. My inner state was too fragile for this world, so I built walls around me.</p>

Figure 8 – The third stage of life is lightness. The girl realizes her femininity in the past in today's self-evaluation. She opens the world of attractiveness and feminine charm. The "ugly duckling becomes a swan" approach





Figure 9 – The image of the Milwaukee Art Museum, created by the architectural genius Santiago Calatrava, resembles a bird

Suppose the previous image of the student is characterized as an image of naivety, not yet realized feelings, as a manifestation of something new, not yet recognized.

In that case, the following image is a manifestation of herself as a whole person, a self-confident woman. This stage is called "Confidence" (Figures 10, 11).

	<p style="text-align: center;"><b>Confidence</b></p> <p>My fourth image is my aspiration. We continue to grow as we create new goals and strive for them. If I understand that I can work better and make more exciting new ideas, learn to manage emotions, and develop myself - I am moving in the right direction. This image is exemplary for me. Analyzing various buildings, my gaze stopped at the Toyo Ito Museum of Architecture, which is located in Japan. Precise forms, which are straight lines flowing into smooth ones, tend upwards. Standard. An object for imitation and learning. The fabric of my image is uniform, strict, and dense. The material speaks for itself. He is the only complete image. I enjoy looking at these forms. I want to see myself clearly: smooth, calm, with a cold mind and clear goals (like these lines of a museum), with a desire to strive upward and not waste time on trifles and distractions - this is my goal.</p> <p>I created four images, completely different and unlike each other, but they have one thing in common - me and my life. That's how I see myself. So different. Each image is a part of my inner state. Although some stages have passed, they have remained embedded and constitute my personality.</p>
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Figure 10 – Image "Confidence"

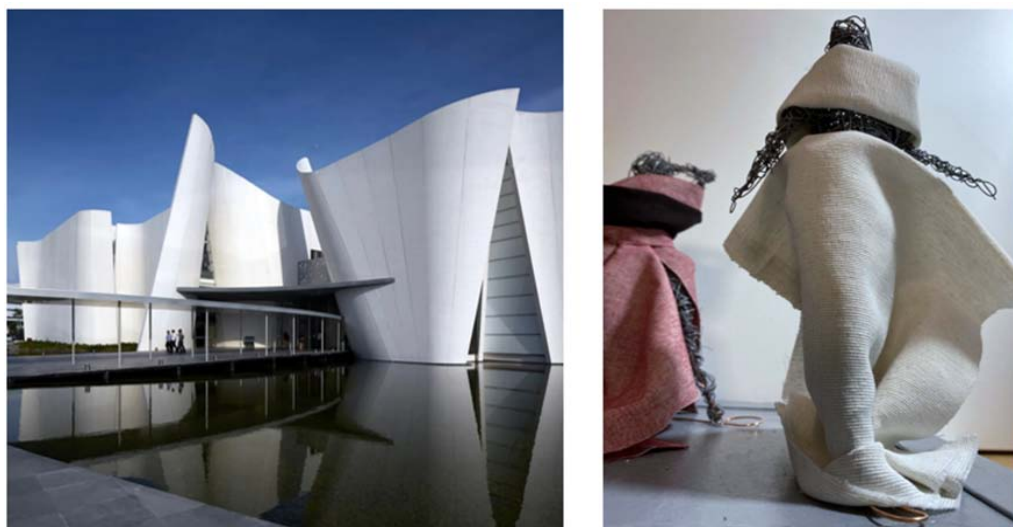


Figure 11 – Comparison of the image "Confidence" with the style of Toyo Ito's Museum of Architecture

The author of the images confidently declares that her fourth image is her desire. This is one of the examples of the quintessence, that is, the worldview of the formed world of a

creative person who has learned the value of life and the power of creativity. All emotions can be experienced and controlled – master yourself (Figure 12).



Figure 12 – The expression of self-control in the example of the image "Confidence"

The completed task, presentation, and collective discussion reflect several interactive learning methods, such as communicative competence, which is extremely important for an architect-designer.

According to Pometun and Pyrozhenko, the technology of interactive learning is revealed as a technology of interaction, cooperation in education, and active partner communication in forms of interactive learning (group, collective, situational modeling, discussions) for the formation of communicative and professional competencies (acquaintance, reflection, brain assault, presentation, etc.) [20].

Also, the student learns the method of project activity in the practical classes of the interdisciplinary discipline "Complex architectural design," which combines both scientific research, the search for the image of the future building, and the search for the integrity of the perception of the architectural environment, which the student-designer organizes in his project based on the actual existing situation and many other points that make up the architectural activity itself.

This discipline is joined by "Presentation of architectural projects", "Fundamentals of scientific research," and "Design of subject-spatial environment". It is impossible to describe the whole process in a short article, but several reference points in interdisciplinary training can be displayed. The stage of complex architectural design begins with assessing the design site and analyzing the situation.

At this stage, the specifics of the student's thinking are considered – in those age-specific features that require identifying specific forms of cognition. Most students have a more developed direct sensory perception. Speculative conclusions are perceived to a lesser extent.

Therefore, emphasis is placed on identifying a scientific problem from their natural impressions of the real environment being studied. These impressions are most fully formed during the period of practice.

The problem identified as a result of the analysis of the situation should become the main problem of scientific research works as a basis for further design in this place. Some drawings and analytical and cartographic materials can serve as an example. Analysis of the design site based on interdisciplinary research makes it possible to create a design concept that reflects the

symbolic and functional features of the surrounding environment. (Figures 13, 14).

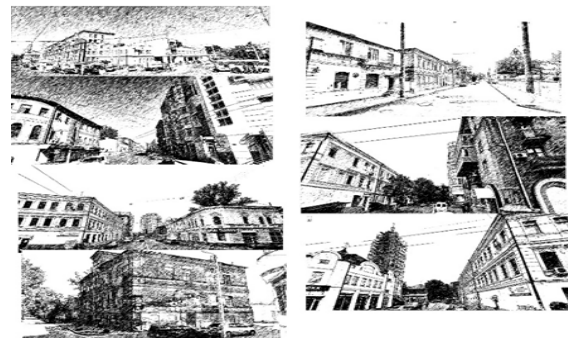


Figure 13 – Full-scale drawings of the surrounding environment of the design site in the city of Kharkiv



Figure 14 – The concept of a design solution. Storyline: from dark to light, from confinement to disclosure

The nature of the existing environment influences the "consumer." If the architect-designer wants to provide natural impressions in the project, he must walk the path the background has prepared for him [2, 11a]. Thus, we approach the most mysterious moment in architectural creativity, the need to "form" the object in an environment characteristic of antiquity and the Middle Ages, where the master put himself in the position of the future "consumer." The architect-designer must preserve the change of impressions that inspired him in the drawings to reanimate this process in more challenging conditions [8, 15].



Not in photographs – mechanical fixations, but specifically in drawings – "romantic embodiment of the figurative inadequacy of real projects," which Frank Wright wrote about. Romantic pictures should lead to a combination embedded in each landscape's potential. The transition process to a combination of points of view can be divided into three stages [3]. In the first, the most "romantic," the task of systematizing impressions is not set. An architect-designer spontaneously gets to know the environment, capturing in pictures impressions arising from the most exciting places. In the second stage, keeping in mind these places preserved in the pictures, a specialist remembers the path of movement to them, which he passed and which the

"consumer" will pass to see them. And then, a functional reflection is as follows: the architect-designer understands that to attract "consumer" to the perception of this beautiful environment, it is necessary to place functionally significant objects in the places of visual revelations. And the road to them should become one of the branches of the spatial framework of the designed environment. And the architect-designer, having defined this path, records the change in spatial impressions. Milestones appear in the pictures – places of the most vivid changes in spatial and light actions. A rhythmic idea emerges to which this space-time fragment must be subordinated (Figures 15, 16).

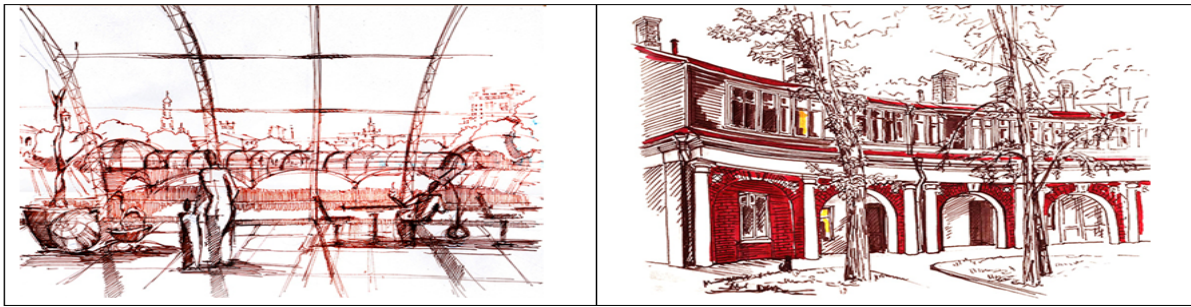


Figure 15 – Graphic representation of a space-time fragment

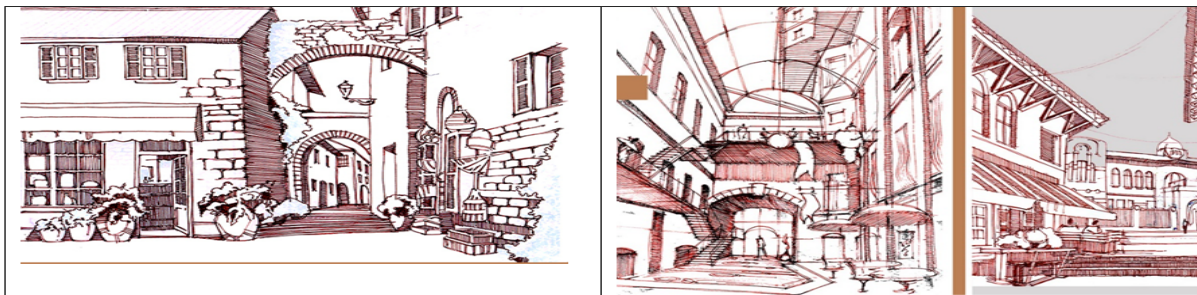


Figure 16 – Full-scale illustrations of the surrounding environment of the design area with abstract proposals in the city of Kharkiv

A problem arises: combining all the fragments into a whole architectural and spatial environment. This is the task of the third stage. For the architect-designer, when fixing the route fragments, a particular form in the landscape "revealed" on which the culminating revelations converged. It is, as a rule, a natural form dominating the landscape. It can be noted that such

a natural center in the Kharkiv landscape is the Kharkiv hill – a plateau with historical landmarks that can be seen both from the streets and the city's courtyards. The Kharkiv Plateau is located between two valleys of the Lopani River and the Kharkiv River, with dams forming the city's recreational frame (Figure 17).

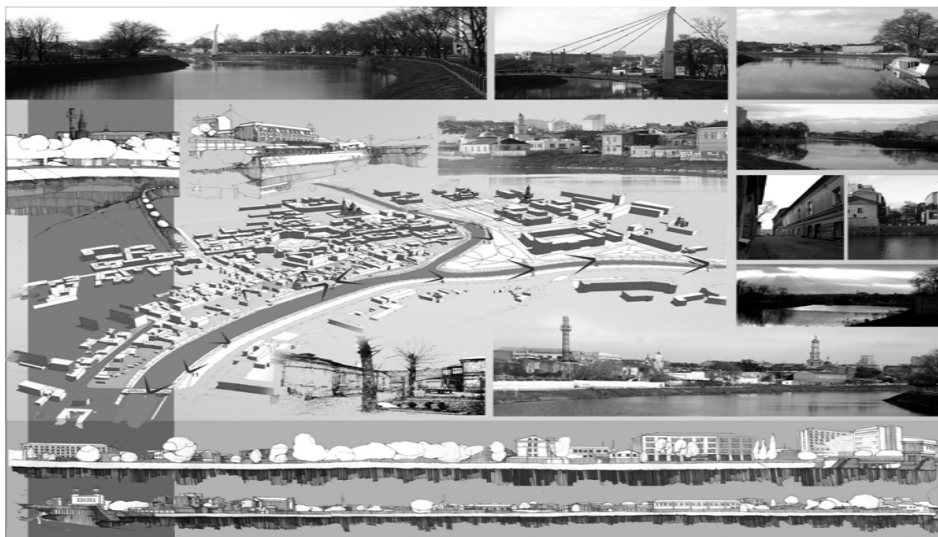


Figure 17– The specifics of Kharkiv: vast panoramas along the rivers and small courtyards with a dense fabric of buildings in its historical part (project proposal)

On one side of the river are the antipodes of the plateau (lowlands – horizontal, plateau – vertical reinforced by architectural verticals), the character of this part of the city. On the other hand, the antipodes are the architectural spaces of the city (tucked in small semi-dark courtyards and spacious bright embankments that reveal vast panoramas). Antipodes enhance the effect of perception of the surrounding environment if they

contrast with the local space. They form spatial gradations – breakthroughs, narrow openings on the plateau with the Assumption and Intercession Cathedrals. And this is also a feature of the place, where vast panoramas are neighbors with the dense fabric of the building of its historical part (Figures 18, 19).

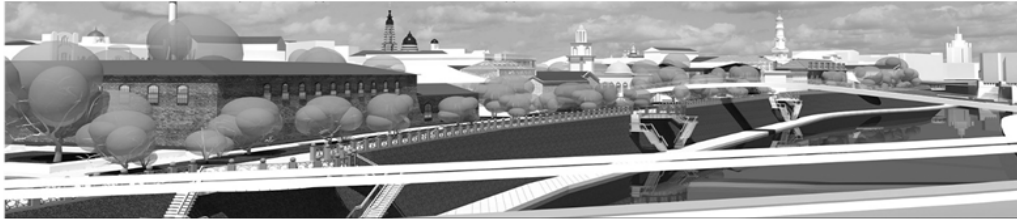


Figure 18 – Panorama of the central part (project proposal) A



Figure 19 – Panorama of the central part (project proposal) B

And then, it is necessary to generalize the impressions of the dominant forms of the landscape and architectural objects in perspective from a "bird's eye view," not built on a topographical

basis, but a symbolic generalization of "earthly" pictures perceived and sketched at different times (Figure 20).

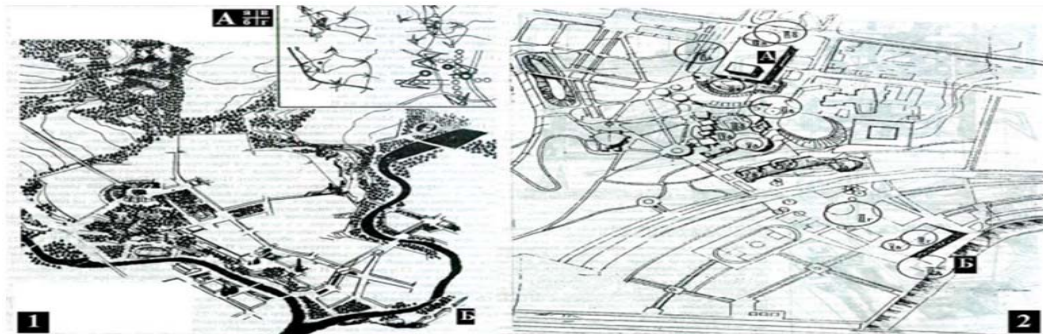


Figure 20 – Generalization of impressions from the dominant forms of the landscape and architectural objects in perspective from a "bird's eye view"

In the mind of an architect-designer, a particular associative whole arises due to the joining of impressions from different times on forms common to them (the concept of "mediator" by Lévi-Strauss and "assembly dominant" by Antonov) [1]. It can be considered that this closing of the associative chain is the basis of the stage of "envisioning" [20]. In the aspect of understanding the "myth of place," "genius of the place," and "spirit of place" in the terminology of Antsiferov, Le Corbusier, and Lynch. Penetration of this "spirit of the place" can see in Figures 21, 22.



Figure 21 – A bird's eye view. A conceptual solution



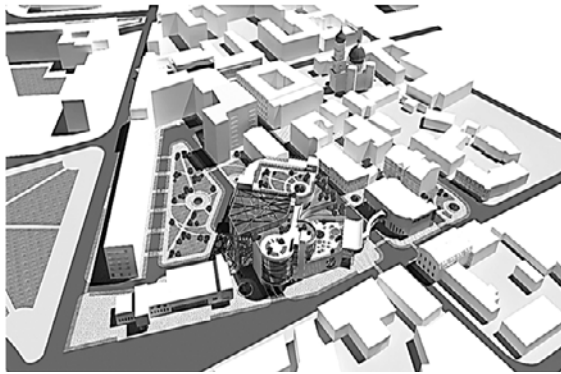


Figure 22 – Project solution. A bird's eye view

The project decision becomes an approval of the conclusions of the research work. The teacher acts as a co-author.

This is how the methods of using role-playing games, joint problem-solving, polemics, critical thinking, etc., are implemented (Figures 23, 24, 25).

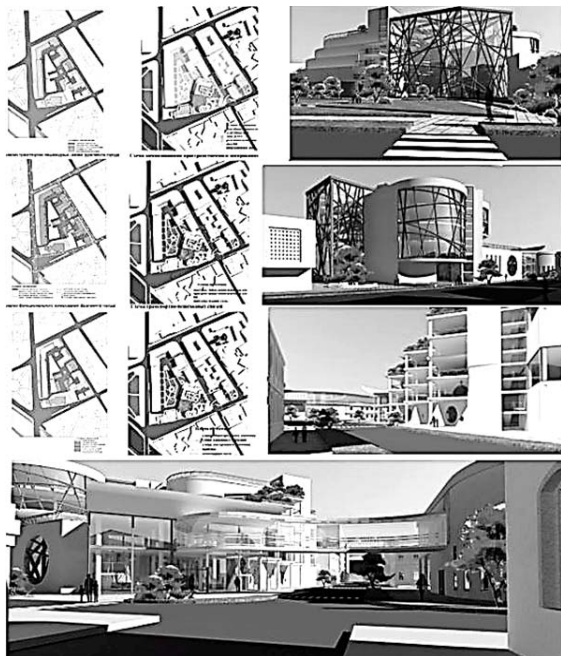


Figure 23 – Analytical schemes of research work and project solutions as an approbation of the conclusions of research work

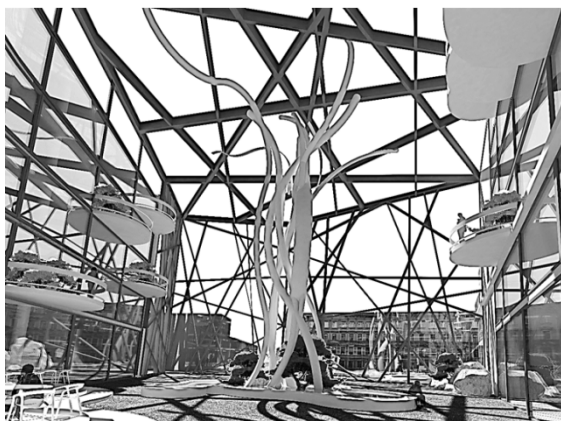


Figure 24 – The internal space of the complex visually absorbs the historic environment



Figure 25 – The collage method provides an opportunity for discussion

Tasks from the subject "Methods and techniques of architectural design" are related to architectural design, where a school or hotel was developed (Figure 26).

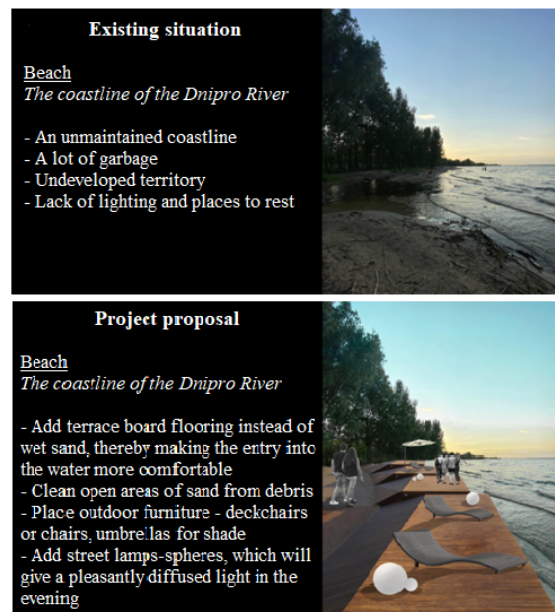


Figure 26 – Project of the coastline design (before/after)

Blitz tasks activate working memory, imagination, and creativity. Based on the position of the Charter of the International Union of Architect-Designers of UNESCO, which defines architecture as an interdisciplinary field of knowledge that includes several main components: humanities, social and physical sciences, technology, and fine arts [28, p. 11], it should be noted that the architecture can systematically combine differently directed vectors.

### 5 Conclusion

The organization of multilateral communication in the educational process by methods of discussion, situational modeling, training, etc., creates an environment for interactive learning. Since design plays the most critical role in architectural education, we can witness the formation of a new educational paradigm based on systematic knowledge and professional activity. The integration of academic disciplines occurs based on the complex architectural design with the selection of specific specializations as an "education-science-production" system.

A narrow-disciplinary approach to architecture removes it from the integral "nature-human-architecture-spatial environment" system and divides it into different scientific disciplines. It needs to give an idea of architectural activity as a whole. At the systemic level, the approach should combine environmental aspects, architecture, engineering, and aesthetics in modern design practice, together with learning methods, both in the regeneration of the urbanized and in the creation of a new environment. The environment for a modern person should be integral, highly comfortable, material-energy, and eco-aesthetic – this is the first thing. Secondly, the inevitable formation of "second nature" should be a part of an ecosystem that can reproduce itself.

On this path, pedagogical models of the organization of architectural education are chosen as interactive, as a system of interactions in the system: "architect-designer-moderator — student-architect-designer — students of the group." Interactive learning technologies are based on a personal-activity approach. They include non-situational (dialogue) and situational (gaming and non-gaming) learning methods. During interactive learning, there is a mutual process (collective, group, and cooperative learning) where students and teachers are equal in education subjects. During interactive training, the teacher is an organizer of the learning process and a consultant. The main thing in the learning process is the interaction between students and the teacher – cooperation between participants. This whole process reflects the "education-science-production" system.

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#### Primary Paper Section: A

#### Secondary Paper Section: AL, AM, JM, JN

## PSYCHOSOCIAL REHABILITATION UNDER LONG-TERM STRESS: A RELEVANT APPROACH FOR EFFECTIVELY ACHIEVING RESULTS

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**Abstract:** This article aims to declare effective, practical methods of psychosocial rehabilitation for patients under long-term stress conditions. Long nervous tension forces the body to be at the limit all the time. This can lead to the development of cardiovascular and other diseases. It has been established that the subject area under consideration has a significant research and organizational and methodological direction in psychology. It has become a considerable part of the population's psychiatric care content. The study revealed the signs of chronic stress and how to recover from it. The obtained result of the scientific analysis of the subject area can be used in the practical activities of medical specialists in organizing psychiatric care for the population for compiling educational programs to improve the professional qualifications of medical psychologists and psychiatrists. The review substantiates the relevance and novelty of research areas for further development of the problem of improving the organization and content of psychiatric care for patients with mental disorders after long-term stress.

**Keywords:** Chronic stress, Long-term stress, Nervous tension, Stress behavior, Psychological correction, Psychological rehabilitation, Psychosocial rehabilitation, Psychological well-being.

### 1 Introduction

The concept of mental health is an integral and essential component of human health [23]. Health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity." Important in this definition is that mental health is not only the absence of mental disorders and disabilities but is also a state of well-being in which a person realizes his abilities, can withstand the everyday stresses of life, work productively and contribute to society [34]. In this positive sense, mental health is the basis of human well-being and the effective functioning of the community because mental health and well-being are essential to our society, and the ability to think, emote, communicate with each other, earn a living, and enjoy life. Given this fact, promoting, protecting, and restoring mental health can be seen around the world as actions of vital importance value.

The problem of experiencing negative emotions and stress have always worried humanity [17], and the development of stress resistance is still relevant today. Psychological stress is a companion of modern man, leading him to social maladaptation and poor psychosomatic health. Stress becomes dangerous when exhaustion sets in. The psyche cannot cope with the emotional load, so diseases and conditions called psychosomatic arise. It is no longer the mood that suffers but the vital organs and systems [20].

How to recognize the signs of stress:

- The structure of sleep is disturbed: a person sleeps restlessly at night or wakes up tired, no matter how many hours he sleeps;
- Eating disorders may occur: both overeating and starvation;
- There is constant fatigue, loss of strength, a sense of anxiety and hopelessness;
- Apathy is observed – a person loses interest in life, becomes inhibited, formulates thoughts for a long time, and loses the thread of the conversation;

- Concerned about frequent headaches and dizziness, which may increase blood pressure [18].

The stronger and longer the stress, the more dangerous its consequences for the body [33]. Decreased attention, memory, and performance. Immunity deteriorates, which leads to frequent infections and inflammatory processes. Possible development of long-term (chronic) stress: (i) endocrine diseases – diabetes mellitus, metabolic syndrome; (ii) pathology of the digestive system – gastritis, gastric ulcer and 12 duodenal ulcers, dyspepsia; (iii) oncological diseases, while the localization of the tumor can be any.

Uncontrolled stress provokes diseases of the heart and blood vessels. The most famous are heart attack, stroke, and hypertensive crisis. A typical stress response is an increase in blood pressure. Its "jumps" create an additional load on the heart and blood vessels. With intense excitement, palpitations may occur, in some cases – failures of the heart rhythm. It is also possible to develop stress cardiomyopathy, or "broken heart syndrome," in which muscle tissue abruptly loses contractility. As a result, the blood circulation of the whole organism is disturbed, and there is a risk of heart rupture. With long-term stress, vasospasm occurs, which leads to oxygen starvation of vital organs – the brain and heart. This condition is challenging for people with already existing pathologies of the heart and blood vessels, with bad habits: the diseases are exacerbated, and the state of health is rapidly deteriorating. Some patients cannot cope with their condition and resort to the help of alcohol or psychotropic substances.

Even though a sufficient number of scientific works in medicine and psychology are devoted to this problem, most of society still needs to gain elementary knowledge of stress and the development of stress resistance. Also, it does not have effective methods of psychosocial rehabilitation.

### 2 Literature Review

In the scientific literature, "psychological stress" or "emotional stress" are distinguished, characterized by a state of pronounced psycho-emotional experience by a person in conflict life situations that acutely or for a long time limit the satisfaction of his social or biological needs [25]. Stress is contradictory, elusive, and nebulous [7]. It hardly fits into the narrow framework of definitions and standards. Its strength is in the breadth of coverage of life manifestations; its weakness is in the uncertainty and vagueness of its boundaries.

The development of the stress problem (emotional, mental, sports, industrial, space, military, etc.) from the standpoint of modern science is reflected in the works devoted to the biochemical, physiological, clinical, psychophysiological, and psychological aspects of its manifestations. According to researchers, stress is a long-term systemic (psychological and hormonal) reaction of the body to life situations that a person considers threatening his well-being and does not see the possibility of a quick resolution [22]. It should be noted that the factors causing stress are commonly called "stressors," and the totality of changes occurring in the body under the influence of stress is called the general adaptation syndrome.

In modern literature, there are various classifications of stress:

- Everyday stress is the body's reaction to trim and insignificant events that appear in everyday life but have a negative impact on the individual, for example, current health problems, lack of money for clothes, problems with cooking, etc.;
- Emotional stress is a response to an overstrain of the nervous system;

- Occupational stress is a diverse phenomenon expressed in mental and physical reactions to stressful situations in a person's work activity;
- Information stress is a condition that occurs due to information loads that a person cannot cope with and make decisions at a set pace [26].

There are three types of stress according to a person's ability to influence it: (i) stresses that do not depend on us; (ii) stresses that we can influence; (iii) stresses, which are the fruit of our imagination [3].

There are two types of stress to be distinguished: (i) eustress – everyday stress that serves the purpose of preserving and maintaining life ("stress" – pressure, voltage); (ii) 2) distress – pathological stress, manifested in painful symptoms ("distress" – grief, unhappiness, malaise, exhaustion, need).

If stress has become protracted and chronic, a person may need the help of a specialist to get out of a destructive state [1]. Psychosocial rehabilitation is a process that enables people who are debilitated or disabled as a result of mental disorders to achieve their optimal level of independent functioning in society. Let us add to this definition that this is a constant, continuous process that includes a complex of medical, psychological, pedagogical, socio-economic, and professional measures.

In the history of the rehabilitation of people with changes in the psyche due to many factors, including long-term stress, a number of important points can be distinguished that played a significant role in its development [9, 16].

*Introduction of labor (professional) rehabilitation.* This approach to treatment began to be introduced in the first third of the 19th century and is associated with the activities of progressive psychiatrists. For example, among the essential transformations are the arrangement of gardening and handicraft work. As a direction of modern domestic psychiatry, occupational therapy began to pay special attention, starting in the 50s of the last century. There was a network of medical and labor workshops and special workshops where people with mental disorders in inpatient and outpatient treatment could work. With the beginning of socio-economic reforms in the 90s of the last century, about 60% of institutions involved in labor rehabilitation (medical-industrial workshops, specialized workshops at industrial enterprises, etc.) were forced to stop their activities. However, employment and occupational therapy are the most critical components of psychosocial rehabilitation programs [32].

*Moral therapy* is the rehabilitation approach that developed in the late 18th and early 19th centuries. This method provided more humane help to people needing psychological help. The basic principles of this psychosocial impact remain relevant to this day.

*The development of community psychiatry.* Shifting the focus of mental health care to the out-of-hospital service and the realization that the patient could be treated close to family and work was of great importance for the recovery of a sick person. In the 30s of the last century, neuropsychiatric dispensaries began to open, and semi-stationary forms of assistance were created, which was of tremendous rehabilitation importance. In the 1950s and 1960s, psychiatric rooms were widely developed in polyclinics, central district hospitals, and other institutions of the general medical network, at industrial enterprises, educational institutions, day and night semi-hospital centers, as well as other forms of assistance aimed at meeting the needs of the mentally ill [27].

In foreign countries (Great Britain, Japan, Canada, etc.), consumer organizations and support groups began to be actively created during this period of social insufficiency [3, 15], etc.

*The emergence of centers for psychosocial rehabilitation.* The beginning of their discovery falls in the 80s of the twentieth century. The first centers (clubs) were created by the patients

themselves (for example, the Club House in the USA), and their activities are aimed at helping patients cope with the problems of everyday life and develop the ability to work even with a disability. Therefore, at first, in such centers, the emphasis was on activities that would help patients cope with life's difficulties, not succumb to them, as well as on health promotion and not on getting rid of the symptoms of mental illness. Psychosocial rehabilitation centers have played a massive role in developing such a field of knowledge as rehabilitating people with disabilities due to mental illness. Although this form of assistance is widely used in the USA, Sweden, and Canada, the number of rehabilitation programs varies significantly (from 18 to 148). In Ukraine, similar centers (institutions) began to be created in the mid-90s of the twentieth century, but they need more. As a rule, these are non-governmental institutions. Currently, rehabilitation centers operating in our country specialize in art therapy, corrective behavioral interventions, leisure, psychotherapy, etc.

Developing the skills necessary to overcome life's difficulties [19]. The emergence of this direction is because, to solve emerging problems effectively, people suffering from mental disorders in the light of long-term stress and other factors need specific knowledge, skills, and abilities. Developing skills and abilities are based on methods developed considering social learning principles. At the same time, methods of active-directive learning are used – behavioral exercises and role-playing games, the consistent formation of behavioral elements, mentoring, prompting, and the generalization of acquired skills are also carried out. It has been proven that developing skills and abilities in people with severe mental disorders leads to the ability to live independently.

### 3 Materials and Methods

Psychosocial rehabilitation interventions vary depending on the needs of the patients [2], the place where the rehabilitation interventions are carried out (hospital or community), and the cultural and socioeconomic conditions of the country where the mentally ill person lives. But the basis of these activities, as a rule, are:

- A. Labor rehabilitation;
- B. Employment;
- C. Professional training and retraining;
- D. Social support;
- E. Provision of decent living conditions;
- F. Education;
- G. Psychiatric education, including training on how to manage painful symptoms;
- H. Acquisition and restoration of communication skills;
- I. Acquisition of independent living skills;
- J. Realization of hobbies and leisure, spiritual needs.

*Methods for restoring the body after stress.* Recovery of the body begins with the elimination of the causes of stress. It is necessary to:

- Reduce the burden on the psyche – other measures are useless without this. If it is not yet possible to eliminate the cause of stress, you should contact a psychotherapist – choose a tactic that compensates for the pressure on the psyche;
- Establish a daily routine: 7–8 hours of sleep are required; otherwise, the body will not be able to restore the resource;
- Take off some of your routine worries – work, household, or family (this will free up time for rest and health care);
- To restore an even mood helps things that time passes unnoticed – absolutely anything, from replanting indoor plants to studying interest rates on deposits;
- Pick up gentle physical activity – they distract from unpleasant thoughts and train the body, including the heart muscle.
- To stop the flow of negative thoughts that exhausts, yoga, meditation, or other spiritual practices will help [33].

Thus, even from an incomplete list of the listed activities, it is clear that the psychosocial rehabilitation of the mentally ill is a comprehensive process aimed at restoring and developing various areas of human life [4].

Recently, the interest of scientists, practitioners, patients themselves, and their families in psychosocial rehabilitation has increased [5, 14]. Currently, there are a large number of models of psychosocial rehabilitation and views on the methods of its implementation [17, 18, 19, 20]. However, all scientists and practitioners agree that the result of rehabilitation measures should be the reintegration (return) of mentally ill people into society. At the same time, patients should feel no less full-fledged citizens than other population groups. Given the preceding, the goal of rehabilitation can also be defined as follows: it is to improve the quality of life and social functioning of people with mental disorders by overcoming their social exclusion and increasing their active life and civic position.

The "Statement on Psychosocial Rehabilitation," developed by the World Health Organization in collaboration with the World Association for Psychosocial Rehabilitation, lists the following goals for rehabilitation:

- A. Reducing the severity of psychopathological symptoms with the triad of drugs, psychotherapeutic treatments, and psychosocial interventions;
- B. Increasing the social competence of mentally ill people through the development of communication skills, the ability to overcome stress, as well as labor activity;
- C. Reduction of discrimination and stigma;
- D. Support for families with someone suffering from a mental illness;
- E. Creating and maintaining long-term social support, meeting at least the basic needs of mentally ill people, which include housing, employment, leisure activities, and the creation of a social network (circle of communication);
- F. Increasing the autonomy (independence) of people with psychological disorders, improving their self-sufficiency and self-defense.

Suppose we hope for the future of psychosocial rehabilitation. In that case, it should be psychiatric care at the patient's residence - affordable and complete, allowing people who need it to be treated and receive serious support. With such assistance, hospitals are not needed, and the medical approach should be used only to a small extent. In other words, the psychologist/psychiatrist/doctor should be a valuable advisor to this service rather than necessarily its owner or ruler.

#### 4 Results and Discussion

The accumulation of scientific data on psychosocial rehabilitation [7, 16], and practical experience has contributed to the fact that at present, along with complex treatment, including drug and occupational therapy, physiotherapy, and cultural, educational, and leisure activities, the following types of psychosocial interventions have been developed as part of psychosocial rehabilitation:

- Educational programs in psychiatry for patients;
- Educational programs in psychiatry for relatives of patients;
- Pieces of training on the development of daily independent living skills – training in cooking, shopping, family budgeting, housekeeping, transport use, etc.;
- Pieces of training to develop social skills – socially acceptable and confident behavior, communication, solving everyday problems, etc.;
- Pieces of training to develop mental health management skills;
- Self-help and mutual support groups of patients and their relatives, public organizations of consumers of psychiatric care;
- Cognitive-behavioral therapy aimed at improving memory, attention, speech, and behavior;

- Family therapy and other types of individual and group psychotherapy [28].

Comprehensive psychosocial rehabilitation programs are carried out in many regional psychiatric services based on psychiatric institutions and directly in the community.

Long-term (chronic) stress is caused by factors of long-term negative impact. For example: (i) life in the conditions of war; (ii) the threat of reduction; (iii) excessive employment; (iv) information overload; (v) prolonged conflict at home or work; (vi) catastrophic lack of time for current tasks and projects; (vii) loss of meaning in life.

Chronic stress is generated by civilization and is related only to human [6]. What loss of meaning can an animal have? Therefore, nature has not prepared anything for us to compensate for it. Adrenaline is not produced under such stress, but destruction occurs.

The most challenging thing to recover from stress is to recover alone – any person, without fail, needs communication. It affects the restoration of energy and peace of mind, brings an undeniable charge of positive emotions to life, takes care of the nervous system, restores memory and healthy sleep, helps to calm down and forget about problems, and returns the old mental strength and normal appetite. So, for example, have a good time at a meeting with friends or relatives. Even if a person does not want to go to noisy events, he should pull himself together and go to a company meeting to relax and unwind with pleasant people you know. This meeting can be some holiday, a joint trip to the cinema or a cafe, a romantic date, or an evening spent playing board games with your beloved family and children [27].

#### 4.1 What Families Can Do for Psychosocial Rehabilitation

At present, the family's vital role in a person's psychosocial rehabilitation has been proven [8]. This implies the performance of various functions. First of all, it should be said that patients' relatives must be considered allies in the treatment. They not only have to learn a lot, but they often have a lot of knowledge and experience – significantly contributing to the rehabilitation process. For a psychologist (doctor), relatives can be a valuable source of information about the patient's condition; sometimes, they are more aware than specialists about some aspects of his disease. Often the family is a link between the patient and the mental health care system. Relatives help other families whose lives have been invaded by mental illness with advice and share their problem-solving experiences. All this allows us to say that the relatives of patients are both teachers and educators for other families and even professionals.

Relatives' essential function is caring for those who need this person [27]. Relatives should consider that patients feel best if each family member has a particular order, rules, and regular duties. It is necessary to establish a mode corresponding to the patient's capabilities. Relatives can help patients with the correct use of medications and control of side effects of medications. Over time, you can entrust the patient with some work around the house (washing dishes, cleaning the apartment, caring for flowers, pets, etc.) and outside the home (shopping, visiting the laundry, dry cleaning, etc.).

The family's participation in psychiatric education programs is another of its essential contributions to the psychosocial rehabilitation of a sick relative. The importance of family psychiatric education has already been discussed in the scientific literature. Knowledge of the basics of psychiatry and psychopharmacology, the ability to understand the symptoms of the disease, and mastering the skills of communicating with a sick person in the family provide a real opportunity to reduce the frequency of exacerbations of stressful conditions and consequences in the form of mental disorders.

Family members can make a significant contribution to the fight against stigma and discrimination, as well as to the improvement of legislation regarding mentally ill people and their families.



However, relatives should collaborate in an organized manner: create support groups and organizations to assist consumers. In this case, they will not only gain the support of people facing similar problems. Still, they will also become a force to be reckoned with by professionals and government agencies responsible for providing high-quality psychiatric and social care [3]. In addition, working in a team, relatives of patients themselves can conduct psychosocial rehabilitation programs – leisure, holiday therapy, and educational for the population to reduce stigmatization and discrimination of patients, and, united with professionals, implement educational programs in the field of psychiatry, vocational training, development of social skills and many others.

There is a practice in which relatives of patients and professionals create support groups and public organizations that carry out active work on psychosocial rehabilitation directly in the community, relying on its resources outside the walls of hospitals or dispensaries.

#### 4.2 The Role of Professionals

We see the role of professionals in initiating relatives and patients themselves to create public organizations or support groups [9]. It is professionals who can play a crucial role in the formation of such organizations.

In the future, professionals should assist the organization in developing activities – constantly advise its leaders or support groups on education in psychiatry, including legal aspects. Professionals can also assist in the preparation of an organization's strategic plans. In addition, the publication of newspapers, booklets, and manuals for the families of people in need of psychological support and correction can be beneficial assistance from professionals to public organizations of consumers [26]. Thus, the development of the social movement of consumers of psychiatric care is becoming an essential link in the modern system of psychiatric care, able to meet the many needs of people with a mental health condition, their position in society, reduce the burden of the disease, improve the quality of life of patients and their families.

#### 4.3 Tips for Recovering from Long-Term Stress When Dealing with an Illness on Your Own

As noted above, long-term stress contributes to diseases, initially of a functional nature and then more serious. For this reason, quickly getting rid of severe stress will help save the body from health problems [11].

*Drink water.* This will help distract and calm down, dilute the blood, and compensate for its clotting caused by adrenaline. So you will avoid blood clots in the cardiovascular system and protect yourself from a stroke.

*Breathing exercises bring instant results.* It relieves muscle and emotional tension and normalizes blood pressure. One of the most straightforward exercises to recover from stress is spreading your legs shoulder-width apart, placing your hands on your belt, and taking a slow breath with your "belly." Next, exhale while throwing your hands forward. At the moment of exhalation, imagine you throwing out all the negativity. You can repeat the exercise several times, as needed.

*Take walks outdoors.* It is better if these walks are long, allowing you to enjoy the healing air and the beauties of nature. Also, the body needs a good, long sleep to recover from stress. After a stressful experience, it is essential to relax. This is where sleep is supposed to help. So it would help to sleep as much as possible to get tired of sleep [21].

When working in a personal post-stress state, it is necessary to mentally *understand the situation* and sort it out "on the shelves" – having built an image of the problem or the offender in this situation. Let go of the case, forgive ill-wishers – do not harbor resentment inside. Understand that, for example, the person who offended you does not even think about you – and you, in turn,

finish yourself off with your own experiences. Your experiences are your state, which brings no relief or retribution to anyone. To stop self-destruction from stress, replace negative emotions with forgiveness, calmness, and joy. Learn this trick and then use it whenever you feel disturbed.

*Smile.* Make it a habit to start your day with a smile. During the day, smile at acquaintances; if a smile is inappropriate, smile mentally. Before bed, smile sincerely at your reflection in the mirror in the evening.

#### 4.4 About Stress Tolerance

It is worth noting that "stress resistance" combines personal qualities that allow you to endure stressful situations without unpleasant consequences for your activities, personality, and others [10]. Stress resistance can and should be formed during an individual's life, especially when it comes to residents of large cities. Personality traits that cause increased stress resistance include:

- A. The level of self-esteem (the higher the self-esteem, the sense of the importance of one's existence, the more excellent the resistance to stress).
- B. The level of subjective control (a characteristic of a person's degree of independence, autonomy, and activity in achieving his goals, his personal responsibility for his actions and deeds). Internals believe they can influence the situation; they take the position "I am not a victim" and take responsibility for what is happening into their own hands. Thus, they are less susceptible to stressful influences than externals, who perceive the situation as a result of external circumstances and, accordingly, are more vulnerable.
- C. The level of personal anxiety (a stable tendency to perceive a wide range of situations as threatening and respond to them with a state of anxiety). Anxiety is not inherently a negative trait. A certain level of anxiety is a natural and obligatory feature of a dynamic personality that supports the instinct of self-preservation. At the same time, high personal anxiety is closely associated with neurotic conflict, emotional breakdowns, and psychosomatic diseases. Therefore, openness, interest in changes, and attitude towards them not as a threat but as an opportunity for development against the background of an adequate level of personal anxiety leads to an increase in stress resistance.
- D. The balance of achievement and avoidance motivation (people motivated to achieve something are easier to endure a stressful situation than people motivated to avoid failure) [29].

According to the Theory of Stress Resistance, all people are divided into four groups [12]. "Stress-resistant" people are characterized by the maximum possible rigidity concerning external events. They are not inclined to change their behavior and adapt to the outside world. Their attitudes and concepts are unshakable. Therefore, any adverse external event or even a hint of its possibility in the future is stressful for them.

"Stress-trained" people are ready for change, but not global and not instantaneous. Therefore, they try to transform their lives gradually, naturally, and painlessly, and when this is impossible for objective reasons, they become irritable or depressed. However, as the tense situations approximately similar in content are repeated, the "stress trainees" get used to and respond to stresses more calmly.

"Stress-inhibiting" people are distinguished by the rigidity of their life principles and ideological attitudes. However, they are quite calm about sudden external changes. They are fundamentally not ready to change gradually, but they can go for a quick and one-time change in one or another area of their life, for example, abruptly changing jobs. However, if stresses follow one after another, especially if they are sluggish, they gradually lose their presence of mind and control over their emotions.

"Non-stress-resistant" people generally cannot adequately withstand the stresses in their lives, which causes them severe psychosomatic illnesses [30].

Stress resistance of a person is characterized as the ability to respond relatively calmly to various changes. Therefore, stress resistance is the ability to function effectively in unstable and crises. The structure of stress resistance as a complex personal construct includes worldview and attitude factors, such as a positive attitude, cheerfulness, confidence, and constructive activity in difficult situations that require persistence, courage, and faith in their positive resolution [13]. A positive attitude and cheerfulness are essential to a person's psychosocial health. Also, the individual stress resistance of the body will depend on heredity, personal life experience, self-esteem, temperament, level of social adaptation, achievement motivation, and subjective attitude to what is happening.

Thus, the stress response depends on the individual characteristics of the individual. For example, in melancholics, stress reactions are most often associated with excitation of the constitution (anxiety or fear, phobia or neurotic anxiety). In choleric people, the typical stress reaction is anger. In phlegmatic people, under the influence of stress, the activity of the thyroid gland decreases, the metabolism slows down, and the blood sugar content may increase, which leads to a pre-diabetic state. Sanguine people with a robust nervous system are the easiest to endure stress.

Since stress plays its role in pre-nosological painful reactions and chronic diseases, medical and psychological rehabilitation, if we consider it as work with emphasis, finds its place at all stages of the treatment process, including the hospital one [31]. The ultimate goal of medical and psychological rehabilitation measures is to increase the likelihood of a favorable outcome in three situations:

- In the cognitive and emotional assessment of potential threats to significant needs – stress or lack of tension;
- In chronic stress – transition to distress or the formation of a specific adaptation, at this stage, it is possible to reduce pre-painful dysfunctions ultimately;
- In case of distress and a developed chronic disease, a response to stressful circumstances with an exacerbation of the disease or the formation of healthier coping strategies with a subsequent reduction in symptoms [24].

Possible steps of anti-stress therapy:

- Emergency stress relief ("resource" psychotherapy techniques, psychopharmacotherapy);
- The formation of specific adaptation to psycho-emotional stressors (psychotherapy aimed either at overcoming the situation or at adapting to it by reassessing the stressful signals of the environment);
- Increase in anti-stress physiological resources (pharmacotherapy, physiotherapy, lifestyle improvement) [5].

Thus, considering the essence of stress and its role in forming pre-morbid manifestations and chronic diseases, it is possible to propose a classification of the goals of anti-stress measures depending on the level of stress disorders:

1. The patient is healthy and assesses the potential threats of environmental changes; it is necessary to: increase anti-stress resources and expand coping strategies.
2. The patient experiences chronic stress, it is necessary: for stress relief, psychotherapy, and increased anti-stress resources.
3. The patient is in distress or already has a chronic disease, it is necessary: specific treatment, stress relief, psychotherapy, increase in anti-stress resources [33].

Understanding the essence of stress will make it possible to determine the necessary number of measures for psychosocial

rehabilitation and more clearly define the targets of influence, thereby increasing the effectiveness of therapeutic measures [22].

## 5 Conclusion

Modern man experiences colossal nervous overload caused by abundant negative information and critical situations. In addition, our time is marked by the emergence or intensification of many stressful factors that devastate mental and physical health. Long-term stresses negatively impact mental cognitive processes and the emotional-volitional sphere, mental states, and personality traits, leading a person to emotional and professional burnout, depression, and psychosomatic diseases. Chronic stress can disable almost all physiological systems of a person. The body cannot constantly be in a state of anxiety and tension. Stress is, first of all, the over-mobilization of all resources. It can not only exacerbate existing diseases but also provoke a new diseases. Stress influences the work of all body systems and changes a person's whole life.

In the fight against long-term stress and its consequences, the most successful are integrated approaches to preventing and relieving adverse manifestations of stress. A doctor, teacher, or coach's use of any one direction of stress correction is similar to the symptomatic treatment of a disease. Stress management should be consistent with the current understanding of stress. So, we believe that stress does not determine individual aspects and reactions but is a holistic, integral state of the personality. In that case, the personality acts as an integral multi-level system; then, stress correction should be carried out not by separate influences aimed at combating individual symptoms but by a system, a complex of influences aimed at optimizing the individual's state as a whole. Thus, it is necessary to solve the stress correction problem from an integrated approach standpoint.

An integrated approach should include not only the integrated use of drug and non-drug methods and means but also a system of professional selection, during which it would be possible to exclude people with low-stress tolerance, and thus, even at the stage preceding the impact of extreme factors, increase in the selected contingent, one of the components of the psychophysiological support of stress resistance.

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#### Primary Paper Section: A

#### Secondary Paper Section: AN



## FORMATION OF PROFESSIONAL COMPETENCE OF A SPECIALIST IN A GLOBALIZED WORLD: CONTEMPORARY PROBLEMS AND PROSPECTS

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**Abstract:** The article aims to consider the formation of global professional competence of students of pedagogical universities, which is the key to the effective professional education of future teachers. In the course of the study, pedagogical conditions are proposed for presenting innovative technologies to form the professional competence of specialists. The level of global dependence is frequently growing, which dictates the need for the training of qualified teaching staff that could effectively solve emerging global problems and take an active position in the society of globalization. In this regard, there is a need to form the global professional competence of students of pedagogical universities, which is the key to effective professional education for prospective teachers. A key element of global professional competence is productive communication, including international communication, which becomes possible by mastering at least one foreign language. Building contacts in a foreign language is one of the global professional competencies and determines success in professional activities after obtaining professional education. Thus, one of the tasks of professional education in training future teachers as part of the formation of competence is the formation and development of the skills required for fruitful intercultural communication, as well as for understanding and accepting representatives of other cultures through transdisciplinary and post-disciplinary approaches.

**Keywords:** Contemporary approaches in education, Creativity, Globalization, Higher education system, Innovative forms and methods of teaching, Professional competence, Professional training of a specialist.

### 1 Introduction

Modern states develop and function in the conditions of globalization trends, which have affected all spheres of life: economy, culture, science and technology, and ecology [9]. Therefore, the level of global dependence is constantly increasing, which dictates the need for the training of qualified teaching staff who could effectively solve emerging global problems and take an active position in the society of globalization. In this regard, there is a need to form the global professional competence of students of pedagogical universities, which is the key to effective professional education for future teachers [29].

The need to form the professional competence of future specialists has become even more relevant in connection with the development of education [1]. It defines the primary task: improving the quality and competitiveness of education and the related changes taking place in the modern information society – the role of the human factor is increasing, universities are being modernized, and the competence-based approach is gaining priority. The process of forming the professional competence of future specialists are recognized as the level of mastering a critical set of competencies [34], the integration of which ensures the successful performance of professional activities. Pedagogical technologies are used that are changing and improving in connection with the world processes of globalization to achieve the maximum result in higher education. The amount of information is growing and becoming more specific every day.

Understanding events, facts, and phenomena are changing rapidly, and there needs more time to transfer and rethink this knowledge in the educational process [21]. This requires teachers and university students to constantly monitor information flows, which excludes deep immersion in a specific problem during the entire study time. Modern pedagogical technologies are being introduced to solve the problem of improving the quality of educational material in the university, including information. Unlike traditional ones, they develop a future specialist's qualities for creative search, analysis, and selection of helpful information. Such technologies contribute to the formation of essential components of professional

competence and the achievement of two strategic goals – increasing the efficiency of all types of educational activities and improving the quality of training specialists with a new kind of thinking, following the requirements of the modern information society. Therefore, it is necessary to consider the industry specifics of functioning and introduce such information and telecommunication technologies that fully satisfy the needs of professional training of competitive specialists.

### 2 Literature Review

At present, the education system in a globalized world is characterized by significant transformations, as a result of which there is an intensification [33], first of all, of innovative processes. Today, the education system is significantly influenced by external factors [27]. It is presented with fundamentally new requirements, the constant increase of which is caused by some trends in world development: (i) accelerating the pace of development of society requires preparing students for life in a rapidly changing environment; (ii) a significant expansion of the scale of intercultural interaction [6], the sociability and tolerance of school graduates are of particular importance; (iii) the emergence and growth of global problems require young people to solve them with modern thinking; (iv) the democratization of society, the expansion of opportunities for political and social choice put the school in front of the need to form the readiness of citizens for such a choice; (v) the dynamic development of the economy and significant structural changes in the field of employment, which determine the constant need for professional development and retraining of workers, necessitate the formation of the desire and ability of school graduates to learn throughout their lives.

In order to meet these requirements, the school must change, and this process must be continuous [16]. All this can be realized by an independent, active, flexible, responding to ongoing changes, capable of taking responsibility, relating to development as a value, and a teacher who is able and ready to learn constantly. Thus, there are special requirements, first of all, for developing the teacher's professional competence [13]. Competence, as a scientific problem, currently has yet to have a precise and unambiguous definition and has yet to receive an exhaustive analysis, even though interest in it has a significant development history.

Competence appeared in the scientific lexicon in the late 50s of the XX century. Initially, its interpretation in domestic and foreign studies had different semantic accents. Foreign researchers invested in the content of the concept, first of all, practical content, the availability of abilities necessary to effectively perform a specific action within a particular subject area [10, 15, 27]. Competence is such a phenomenon that consists of many relatively independent components; some components are more cognitive, while others are more emotional. These components can replace each other as components of observed behavior. Competence is required to perform a specific action in one subject area, including highly specialized knowledge, skills, ways of thinking, and a willingness to take responsibility for one's efforts.

Competence components will develop and manifest themselves only in performing an activity that is interesting for a person [26]. Effective performance – the result of several factors – depends much more on a set of independent and complementary competencies that cover a wide range of situations in moving towards a goal than on the level of individual competence or ability displayed in a particular case. Therefore, it is necessary to evaluate the complete competencies demonstrated by individuals in various situations over a long time spent on achieving personally significant goals rather than the level of any individual ability. The specific situation in which an individual

finds himself directly affects the formation of his value and the possibility of developing and mastering new competencies.

The competency-based approach appeals to the modern paradigm of interdisciplinary science and education [24]. We owe the emergence of the principle of competence to philology [11]. Subsequently, the principle of competence is extrapolated as a scientific method applicable to various fields of knowledge, including pedagogy. Based on new trends in the development of modern education, the competence-based approach is of great importance for the professional development of a future specialist. This issue is given special attention. At the same time, creativity also plays a vital role in forming students' professional competence, allowing a person to use the creative side of his personality in solving various problems and taking action.

If we talk about the term "global" professional competence, then this term is often used in connection with programs for assessing the educational achievements of students. Global professional competence means the ability to critically review and evaluate global problems, including the issues of interstate or intercultural interaction in the context of globalization [5]. Furthermore, global professional competence implies awareness of racial, cultural, political, and other differences directly reflected in people's thinking, attitudes, and perceptions of people. In addition, global professional competence is based on the willingness to engage and cooperate openly, effectively, and respectfully with the rest of society, with a priori respect for the human dignity of each individual.

Today, the formation of global professional competence begins at the school education level [19]. Still, the most remarkable effect of this process is noted at the level of professional education [2]. Today, one can notice the dynamics of changes in various industries and areas, both within states and at the international level; they are a consequence of globalization processes. The reaction to these changes is widespread Internetization and computerization. Together, these factors have led to the formation of a competency-based approach in the higher education system. Furthermore, it is known that the competency-based approach directly affects the evaluation of educational culture [3]: instead of traditional skills, abilities, and knowledge, competencies are assessed.

### 3 Materials and Methods

Throughout the study, the methods of content analysis, structural-functional method, formalization, systematic approach, comparative analysis, literature review, and observation were used. Authentic literary sources were used as materials: scientific and methodical literature and periodicals. A study of the scientific literature showed that among specialists from various industries, there is an opinion about the versatility of the possibilities of modern innovative methods and technologies [36]. But significant obstacles to their successful implementation have also been identified. The components of this environment are:

- Internal component (electronic educational and methodological complexes in the disciplines, the electronic library of the university; software products for general and particular purposes for training and research work; software products for computer testing of students' knowledge and teachers' work; university website; information system of administrative and organizational university management).
- External component (resources of educational portals, Internet resources).

The influence of the educational environment directly forms in students such a professionally important quality as information culture [3]. The development of this property is associated with the degree of informatization of society. Therefore, it should be continuously carried out at all stages of education by introducing information and telecommunication technologies into the content of the educational process. In addition to the above, information technologies structure and systematize the presentation of

material, increase the efficiency of independent work, ensuring the use of all possible information sources (literary, electronic, and multimedia) to solve the educational problem. The stages of the study implementation involved the following tasks:

- Determine the prerequisites for the emergence and development of global professional competence [5];
- Analyze the definitions used today for such concepts as "global professional competence" and "competency-based approach" [27];
- Define the structure and central building blocks of global professional competence [14].

The competence model of a specialist is less strongly tied to the subject and object of labor [18] than the classical qualification model. This ensures the mobility of future teachers in the rapidly changing conditions of the labor market and the economy as a whole. Modern employees, including teachers that are competitive and in demand in the labor market, must have the following: (i) vocational training; (ii) the ability to make independent decisions; (iii) initiative; (iv) the ability and readiness to work with innovations; (v) the ability to work in a team; (vi) psychological stability [25]; (vii) focus on building and developing a career; (viii) readiness for stress and overload [19].

In this regard, professional education should prepare future teachers for the changes associated with their professional activities, developing dynamism, constructiveness, and mobility [35]. The competitiveness of a graduate depends on the level of development of the listed qualities. Thus, the everyday task of professional pedagogical education is to prepare students for activity through the formation of the necessary set of knowledge and skills [37], the ability to use them for the most effective solution of problems, as well as a set of personal qualities that would allow them to make independent decisions even in conditions of uncertainty.

One of the fundamental factors in the development of the economy is the growing role of human capital [11]. Competence-based approaches, including the formation of global professional competence, create conditions for education development while forming the basis for improving the quality of the entire educational process and learning outcomes [28]. It is widely believed among researchers that the presence of competence implies a number of features: the availability of high-quality knowledge and an understanding of how the acquired knowledge and skills can be applied in practice. Thus, the competence-based approach lies in the rationality and awareness of actions. This multi-level understanding of global professional competence makes it possible to consider it from the standpoint of general abilities and particular specialties.

The subject of this study is global professional competence, which is formed during the education of students of pedagogical specialties (Figure 1).

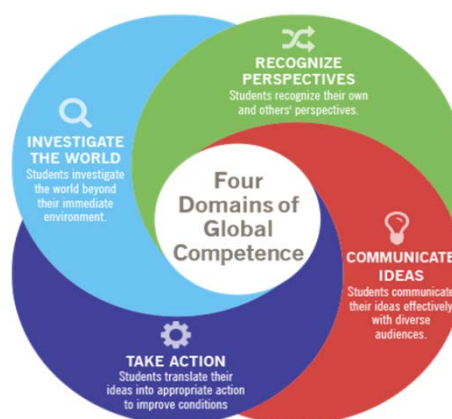


Figure 1 – Dimensions of global professional competence

This study aims to describe, analyze and systematize the essential structural elements of global professional competence, which is a condition for the effective professional development of future teachers.

#### 4 Results and Discussion

The ideas and visions about the world that dominated the 20th century are now outdated and must be updated [7]. Moreover, current conditions have created new problems and challenges requiring future teachers' training. According to reports and declarations of international organizations, today, the priority is relevant, effective, independent learning, which prepares graduates for professional activities and life in conditions of competition and cooperation under the emerging new global scenario [11, 23, 28]. Furthermore, globalization accelerates the movement of capital, industry, ideas, and human resources. As a result, equal opportunities and conditions for personnel are created worldwide.

In most cases, employers are looking for employees who would be competent, reliable, and at the same time, work at the best price while the employee's location fades into the background.

Today we can talk about a fundamentally new process of division of labor, reflected in the training of personnel, including those of a pedagogical profile, that is, future teachers. In all countries, computer equipment or low-paid employees with a low level of education or complete absence are increasingly used to perform simple routine tasks. And to perform tasks that require complex communications and professional thinking, specialized personnel are involved who can solve problems of varying degrees of complexity.

An analysis of the list of the most demanded professions until 2025 showed that they include specialties that only existed 10–15 years ago (Big Data processing specialists, telemedicine specialists, new media specialists, and so on) [27]. However, the teaching staff is always in demand and is one of the key specialties. It was revealed that a critical element of global professional competence is effective communication, including international communication, which becomes possible through mastering a foreign language [5, 6, 17]. The ability to build contacts in a foreign language refers to global professional competence and hard skills, which determines success in professional activities after receiving professional education (Table 1).

Table 1: List of global competencies, attitudes, and personal traits

Competency	Attitude	Personal Trait
Communication	Openness	Acceptance of differences
Communication in a foreign language	Flexibility	Coping
Holistic system thinking	Adaptability	Resilience
Negotiation	Curiosity	Initiative
Conflict management	Assertiveness	Oriented of face challenges
Cooperation	Self-awareness	Creativity
Problem-solving	Empathy	Perseverance
Encourage and motivate others	International orientation	
Teamwork	Sociability	
Understand and connectedness of the world		
Decision making		

Thus, one of the tasks of professional education in training future teachers in the framework of global professional competence is the formation and development of the skills necessary for productive intercultural communication, as well as for understanding and accepting representatives of other cultures through post-disciplinary and transdisciplinary approaches.

Some modern researchers characterize global professional competence as a broad outlook, striving for the concept of cultural norms and values, other people's expectations, and applying the acquired knowledge, which creates conditions for effective interaction, work, and communication outside the traditional environment [29, 38].

According to another definition, global professional competence includes foreign language skills and competencies for intercultural exchange. In this regard, one of the factors in the formation of professional competencies is creative thinking. It contributes to a comprehensive assessment of the problem and consideration of various ways to solve it (perhaps not standard ones) [1].

The term "creativity" comes from the Latin ("creatio" – creation) language. Psychological and pedagogical research considers this concept from different points of view [25]. However, the most interesting are the definitions (for the convenience of analysis, we have divided them into groups), in which creativity is interpreted as: (i) the ability to be creative and original thinking; the level of development of creative skills, characterizing the personality as a whole; (ii) the highest level of intellectual activity of thinking; (iii) activity, process, or set of specific processes; (iv) the ability to perceive and comprehend the new, the need to perceive changes, and the generation of many original and valuable ideas of activity; (v) a personality trait that

manifests itself during the transformation of information processes.

Based on the preceding, creativity is understood by us as an integral stable characteristic of a person, which determines his ability to be creative, accept new, non-standard creative thinking, and generate many original and valuable ideas [19]. Thus, creativity allows the development of non-standard thinking creative approach to solving professional problems. This corresponds to the modern approach to the development of education and the formation of new ideas about the competence of a future specialist.

Changes in people's social and economic spheres today are happening much faster than 50 years ago. As a result, there is a need to train specialists in a new formation who can think and act per the requirements of modernity. We live in a rapidly changing world: international law is changing, views on political events on history as a whole, the worldview of an individual are changing, and the picture of the world around and inside us.

Therefore, we must become different people – individuals who look with confidence into the unknown tomorrow and who are so confident in their abilities that they can face the coming changes enthusiastically. A society that has raised such people will be able to survive; a society that fails to produce such a person is doomed.

In the conditions of interaction between representatives of professional communities of different countries and cultures in the context of globalization, it seems essential to ensure the implementation of the most effective approaches in vocational education that meet the modern social needs of society (Table 2).

Table 2: The most relevant global competencies and missed competencies identified by six countries

Countries	Italy	Spain	Sweden	France	Hungary	Ukraine
<b>Global Competencies</b>						
<b>Competencies</b>	Communication in a foreign language Communication Cooperation Problem-solving Teamwork	Communication Negotiation Cooperation Encourage and motivate others Teamwork	Communication Cooperation Problem-solving Teamwork	Decision making Ability to support and motivate others	Communication in a foreign language Cooperation Problem-solving Teamwork	Communication Negotiation Cooperation Teamwork Problem-solving
<b>Attitudes</b>	Flexibility Adaptability Empathy Conflict management	Flexibility Adaptability Empathy Assertiveness Curiosity	Relation building Adaptability Empathy Openness Curiosity	Flexibility Adaptability	Flexibility Adaptability Assertiveness	Flexibility Adaptability Empathy Assertiveness Curiosity
<b>Personal traits</b>	Initiative Performance-oriented Oriented to face challenges	Taking initiative Acceptance of differences Openness Convincing Oriented to face challenges Resilience Relation building Leadership	Performance-oriented Acceptance of differences Oriented to face challenges Service minded Sociability	Autonomy Sociability Resilience	Initiative Oriented to face challenges	Initiative Performance-oriented Oriented to face challenges Resilience Relation building Leadership Openness Acceptance of differences Autonomy Sociability
<b>Missed competencies</b>	Ability to make decisions Flexibility Communication Sociability Awareness of one's potential, competencies, and skills	Emotional intelligence Active listening Detail oriented Assuredness Commitment Ambition Long-term vision Patience Social and sustainability focus	Communication Sociability Presenting	Emotional intelligence Cooperation Interaction Flexibility Leadership	Holistic thinking Communication Flexibility Oen to manage changes Social and sustainability focus	Communication in a foreign language Social and sustainability focus Flexibility

As mentioned above, the priority approach in achieving these goals is a competency-based approach that ensures the implementation of multicultural education and multicultural education in the context of interethnic interaction. A modern professional should be able to carry out professional multicultural exchange based on a comparative analysis of the typological characteristics of various professional cultures and adequately represent their country and culture in the conditions of such interaction. These factors testify to the relevance of the sociocultural approach in modern vocational education. It is aimed at mastering sociocultural knowledge, skills, and sociocultural experience in the context of multicultural interaction and at the formation of sociocultural competence. Sociocultural competence is understood as the ability to use those elements of the ethnocultural and sociocultural context relevant to the generation and perception of speech from the point of view of native speakers (customs, rules, norms, social conventions, rituals, social stereotypes, and others). This competence also includes a lingua-cultural component [5, 8], which implies knowledge, understanding, and proper use of national realities that designate objects, phenomena, and concepts unique to a particular sociocultural community.

The modernization of the vocational education system highlights the problem of training personnel who are able, based on integration into the world professional community, to preserve their country's traditions, national interests, and values to improve the quality of people's lives. In this regard, the role of the axiological approach increases, which has great potential in implementing educational tasks in vocational education.

Education is understood as a set of academic, training, and professional influences of the educational system of an educational institution that contribute to ensuring independence and awareness in the choice, development, and implementation of professional activities by a person, allowing one to realize abilities and inclinations in her chosen professional field in solving professional problems in the interests of her country and progressive world community. In the process of vocational education, it is necessary to transfer both professional and universal values, which will be the basis for implementing the interaction between representatives of various national communities in a specific professional field.

The axiological component of professional training is reflected in the formula "know-be able-to-create-want," all components of which should be characterized by a value orientation [22]. Among globalization's most significant professional values, it seems appropriate to single out the following: professional duty, patriotism, responsibility, honesty, service to people, creativity, and mastery. Further, globalization dictates an increase in the importance and role of the professional culture-forming environment [26]. In this regard, the position seems to be relevant for this study, which emphasizes that the concept of "pedagogical potential of the cultural and educational environment" allows expanding the boundaries of the interests of modern professional education, including the surrounding reality as a source and driving force for the development of the personality of a future professional. The main system-forming factor in the context of globalization is environmental life activity, the structure-forming connection of which is the attitude of a person to his cultural environment, as a result of which there

is a relationship between the components of the cultural and educational environment.

The degree of interconnection depends on the degree of personal comprehension of the degree of inclusion in the activated value sphere of culture. The pedagogical potential can be increased by increasing the environment's resources and changing the structure and interaction between the domain elements. This provision proves the need to immerse students in a dynamic multicultural environment, taking into account the constantly occurring changes in its structure and content under the influence of the globalization factor. Finally, the increase in the complexity of professional tasks in the context of globalization requires the introduction of new educational technologies [12]. The most adequate in modern conditions is an integrative-modular technology for the formation of professional competence of future specialists. This technology is based on an algorithm that includes the following steps:

- A. Problemization;
- B. Actualization of professional knowledge, skills, and abilities necessary for the high-quality performance of educational work;
- C. Formation and development of experience in implementing typical activities of a future specialist;
- D. Planning goals, content, pedagogical technologies, and conditions;
- E. Independent creation of projects for the performance of author's options for performing typical types of undergraduate activities, their presentation;
- F. Assessment of the quality of research and educational activities and self-assessment [20].

The above advantages can contribute to solving the problem of a graduate's adaptation to new conditions of life in the information society, where the decisive role will be played not by matter and energy but by information and scientific knowledge.

Nevertheless, it is necessary to consider the factors of globalization, virtualization of processes, and increased emigration, which makes new ways of interaction between the subjects of the production process and new forms of employment associated with these methods relevant. These factors directly impact the requirements for the global professional competence of a specialist in the modern world.

## 5 Conclusion

The current world of globalization differs from the industrial world in which future teachers must carry out their professional activities. This dictates the need to acquire new knowledge, skills, and abilities. Today's application of information and telecommunication technologies in education is relatively high. The introduction of them, as well as a complex of pedagogical conditions (personal, motivational, content-procedural, methodological, organizational, technological) in the professional training of future specialists will contribute to the activation of educational and cognitive activity and increase the effectiveness of the formation of professional competence. The professionalism of teachers is one of the most critical factors in preparing a skilled specialist.

Furthermore, it is vital to consider the growing role of global interdependence, which will directly affect future work conditions. Thus, today the formation of the global professional competence of future teachers, who are both professionally trained and interested in the outside world, is relevant. Prospective teachers should be able to handle innovative tools, languages, ideas, and methods to solve society's actual social problems effectively.

Global professional competence contributes to self-development, using accumulated experience based on the exchange of views, different points of view, and the willingness to improve the conditions of society and the global community to contribute to sustainable development. Therefore, the formation and development of global professional competence is a condition

for the practical professional education of future teachers. The solution to this problem will ensure the preparation of graduates for successful work, the formation of a set of knowledge and skills, as well as the ability to effectively apply them to solve problems of varying complexity, as well as the development of personal qualities that allow them to make independent decisions in the future, including with increasing uncertainty.

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**Primary Paper Section: A****Secondary Paper Section: AM**



## **F MEDICAL SCIENCES**

FA	CARDIOVASCULAR DISEASES INCLUDING CARDIO-SURGERY
FB	ENDOCRINOLOGY, DIABETOLOGY, METABOLISM, NUTRITION
FC	PNEUMOLOGY
FD	ONCOLOGY AND HAEMATOLOGY
FE	OTHER FIELDS OF INTERNAL MEDICINE
FF	ENT (IE. EAR, NOSE, THROAT), OPHTHALMOLOGY, DENTISTRY
FG	PAEDIATRICS
FH	NEUROLOGY, NEURO-SURGERY, NUERO-SCIENCES
FI	TRAUMATOLOGY AND ORTHOPAEDICS
FJ	SURGERY INCLUDING TRANSPLANTOLOGY
FK	GYNAECOLOGY AND OBSTETRICS
FL	PSYCHIATRY, SEXOLOGY
FM	HYGIENE
FN	EPIDEMIOLOGY, INFECTION DISEASES AND CLINICAL IMMUNOLOGY
FO	DERMATOLOGY AND VENEREOLOGY
FP	OTHER MEDICAL FIELDS
FQ	PUBLIC HEALTH SYSTEM, SOCIAL MEDICINE
FR	PHARMACOLOGY AND APOTHECARY CHEMISTRY
FS	MEDICAL FACILITIES, APPARATUS AND EQUIPMENT

## MEDICO-PREVENTIVE AND EPIDEMIOLOGICAL STUDIES OF SOCIALLY DANGEROUS DISEASES IN UKRAINE: UNDER HIV/AIDS

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**Abstract:** The article aims to review the present condition of the state approach and corroborate suggestions for enhancing circumstances constraints. The analysis of research studies showed that international organizations among the ways to overcome the HIV/AIDS epidemic, pay considerable attention to information and educational work among the population, especially young people. Prevention strategies must be developed and adopted, adapted to national circumstances, considering gender, cultural, social, and economic aspects. The problem of HIV/AIDS has been a pandemic that has already affected 40 million people worldwide, and the number of people infected with the human immunodeficiency virus is constantly growing. Such scales of the spread of the human immunodeficiency virus are becoming global and pose a real threat to the socio-economic development of most countries of the world. According to experts and research findings, HIV/AIDS is a difficult challenge for the international community. The HIV epidemic has become one of the most dangerous factors negatively affecting the development of the individual and society, causing a decrease in life expectancy, an increase in the demand for medical services, and an exacerbation of poverty and social inequality. The fight against this disease is one of the state's priority tasks in the public health field. And the successful implementation of this task requires proper legal support and consistent and transparent public policy.

**Keywords:** AIDS, Combating HIV/AIDS, Dangerous diseases, Epidemiological studies, HIV infection, Medico-preventive studies.

### 1 Introduction

HIV infection and AIDS, which are rapidly spreading in Ukraine, pose a threat harms the country's national security, economic growth, and social development [22]. Therefore, the policy of countering the epidemic should provide for the prevention, overcoming, and reduction of its consequences. One of the directions of the social policy of any civilized state is public health because the preservation and promotion of health is an integral part of state building, social policy, and the national security system [15], as well as one of the essential tasks and functions of the state.

Solving the problem of the spread of HIV/AIDS has become a criterion that determines the level of democracy [21]. Yet, even though the strategy to combat these ailments has been recognized as one of the state policy priorities, it has not been possible to stabilize the epidemic. This provides grounds for revising the mechanisms for forming and implementing state policy in this area and determining its effectiveness.

In relevant areas involved in response to HIV/AIDS, the effectiveness of public policies can be assessed using criteria such as effectiveness, efficiency, and cost-effectiveness [6]. However, the peculiarity of this process is that the primary attention in evaluating these indicators is paid less to obtain specific results with the least expenditure of resources.

### 2 Literature Review

A well-grounded choice of policy tools to counter the HIV/AIDS epidemic and assessing their use results are significant because of the problematic epidemiological situation [30]. In Ukraine, scientific publications are devoted to the problems of public administration and policy regarding HIV/AIDS. Among them, one can note, in particular, the works of Krysko, Khozhylo, Yakobchuk [19, 35], and others.

Some aspects of the formation and development of a modern system of counteracting HIV/AIDS in Ukraine are covered in the works of Ariaev, Balakirieva, Boiko, Dub, Kotov, Starets, Zhylyka [2, 4, 5, 12]. The issues of standardization of public services and the relationship of social services with general and administrative research: Buromenskiy, Hubar, Bohan, Boiko, Vasylykova, and Kyselov [9, 10, 18].

A feature of the current state of the domestic healthcare system is a deep managerial crisis, most clearly identified in the prevention of socially dangerous diseases, particularly HIV/AIDS [27]. Today in Ukraine, in the system of forming an effective mechanism for the prevention of HIV/AIDS, local governments are objectively given one of the leading roles [16].

The local level is the basis on which the system of cooperation between state and public institutions is formed and further effectively develops who are responsible executors of preventive programs. However, we note that the problem of delimitation of powers between the executive authorities of the central level and local governments on the issues of ensuring the implementation of program tasks for the prevention of HIV/AIDS remains unsettled by legislative and regulatory legal acts.

Despite the research of scientists and practitioners today, the problem of state regulation of socially dangerous diseases [13]. HIV/AIDS in Ukraine, remains a specific subject of complex scientific and practical analysis [7, 15, 22]. Hence, there is an objective need to substantiate theoretical approaches to improving the mechanisms of state-public interaction in combating HIV/AIDS, monitoring and determining its effectiveness, and developing practical recommendations on using state-public cooperation in the field under study.

Socially dangerous diseases in Ukraine significantly impact the nation's demographic and labor potential, economic and political stability, and security of the state as a whole. Considering the importance and diversity of this socio-medical problem, it is possible to influence the prevalence of socially dangerous diseases and organize prevention and control of them through the cooperation of local governments, executive authorities, and international and domestic non-governmental organizations [33].

The decisive role in solving this socio-medical problem is played by the improvement of the mechanisms of state regulation of socially dangerous diseases [31], which is of particular importance against the background of the demographic crisis [19], social transformations in society [14], and the marginalization of a specific part of the population of the state [23].

### 3 Materials and Methods

The *purpose of the study* is to review the current state of state policy and substantiate recommendations for improving state regulation. Furthermore, it is necessary to overcome socially dangerous diseases in Ukraine, particularly HIV/AIDS, based on domestic and international experience to improve the provision of medical and social services to the population [1, 4, 20, 21].

The following tasks were set to achieve the goal:

- To determine the nature and role of socially dangerous diseases as a medical and social problem in Ukraine, in particular, an acquired immunodeficiency syndrome (HIV/AIDS);
- To study the international and domestic experience of legislative and regulatory regulation on combating HIV/AIDS and conduct a comparative analysis;
- To analyze the characteristics of HIV/AIDS in Ukraine as an epidemic process and its monitoring;
- To explore the role of specialists and public organizations in the state regulation of combating HIV/AIDS in Ukraine;



- To substantiate the use of international experience in improving state regulation on combating HIV/AIDS in Ukraine based on decentralization.

The *research subject* is the state regulation of counteracting HIV/AIDS in Ukraine. The *object of the study* is the social relations that have developed in combating HIV/AIDS in Ukraine.

*Research methods.* To achieve specific goals and objectives in the research process, a complex of general scientific and unique methods was used, including:

- Abstract-logical (analysis of scientific sources, legal framework on the research topic);
- Structural-functional and systemic (comprehensive study of state-public cooperation in the field of combating HIV/AIDS in Ukraine, its components, the coordination mechanism between them, the relationship between the subjects of collaboration, their powers and features of the functions they perform);
- Historical (historical retrospective, the evolution of the domestic system of state-public cooperation in the field of combating the spread of HIV/AIDS in Ukraine was studied);
- Analogies and comparisons (the possibility of introducing elements of foreign experience and mechanisms for the provision of medical and social services into domestic public administration practice was assessed);
- Synthesis and modeling, with the help of which recommendations were formed to improve the mechanisms of public administration in cooperation with the public to combat HIV/AIDS in Ukraine;
- Prognostic and abstraction (formation of provisions of scientific novelty, conclusions and practical recommendations for improving the mechanisms of public administration in cooperation with the public to combat HIV/AIDS in Ukraine).

Analytical review in work consists of the following:

- Analysis of international and Ukrainian legislation and scientific publications on review tasks;
- Interviews with experts (which included social and medical specialists, civil servants, practitioners of public organizations, lawyers, and social analysts, workers in the social services system for families, children, and youth);
- Analysis of the experience of other countries [36];
- Holding round tables to discuss problems and develop recommendations.

#### 4 Results

Despite significant progress in counteracting HIV/AIDS, in the context of the transformation of all spheres of life, the economic crisis, and the military conflict in the east of the country, HIV infection in Ukraine continues to spread. The main negative consequence of HIV/AIDS is its impact on the demographic situation, which is due to the high mortality rate of the population for reasons related to HIV/AIDS [28].

For the period 1987–2021, 306 295 HIV-infected persons were registered among citizens of Ukraine, including 97 584 cases of AIDS and 43 206 deaths from diseases caused by AIDS. As of December 31, 2021, 136 965 HIV-infected citizens of Ukraine were under control in the AIDS service, of which 41 524 patients were diagnosed with AIDS. The prevalence rate of HIV infection was 323.7 per 100 thousand of the population and was 5.5% higher than the intensive indicator for the corresponding period of the last 2016 (306.8). The prevalence rate of AIDS was 98.1 per 100 thousand of the population and increased by 14.4% against the indicator of the corresponding period of 2016 (85.8).

According to seroepidemiological monitoring data, the incidence of HIV infection in Dnipropetrovsk, Kyiv, Kirovohrad, Mykolaiv, Odesa, Kherson, Chernihiv regions, and the city of Kyiv exceed the national average [34].

The increase in the incidence of AIDS, for example, for six months of 2021 against the corresponding indicators for the same period last year, occurred in 15 regions. The highest growth rates were registered in Vinnytsia and Sumy regions (+126.2% and +109.4%, respectively). The incidence rates of AIDS in Dnipropetrovsk, Odesa, Mykolaiv, Kherson, Zaporizhzhia, Kirovohrad, and Donetsk regions exceed the average for Ukraine. In the structure of transmission routes of HIV infection among persons with a newly diagnosed HIV infection, the sexual (homo- and heterosexual) route predominates [31].

In one the year of 2021, 1 496 deaths from AIDS were registered (3.5 per 100,000 population) against 1,428 cases (3.3 per 100,000 population) for the corresponding period of the previous year. The growth rate of the mortality rate from SNDA was 5.2%. High rates of increase in the mortality rate from SNOD were registered in Sumy (101.7%), Kyiv (79.0%), Kharkiv (77.0%), Odesa (55.8%), Zakarpattia (50.1%), Ivano-Frankivsk (45.7%) regions and Kyiv (55.6%).

In 10 regions of the country in 2021, a decrease in the incidence of AIDS was registered, and the most significant decrease was registered in the Ternopil and Chernivtsi regions (41.3% and 44.3%, respectively). Dnipropetrovsk, Kyiv, Kirovohrad, Mykolaiv, Odesa, Kherson, Chernihiv regions, and Kyiv remain the leaders regarding HIV incidence. The highest growth rates of AIDS incidence were registered in Vinnytsia and Sumy regions (+126.2% and +109.4%, respectively). In addition, high rates of AIDS incidence have been registered in Dnipropetrovsk, Odesa, Mykolaiv, Kherson, Zaporizhzhia, Kirovohrad, and Donetsk regions.

For the period 1994–2021, in the Kirovohrad region, 9 640 positive HIV test results were obtained according to seroepidemiological monitoring of the spread of HIV; 2 974 cases of HIV infection were officially registered among citizens of Ukraine, including 640 cases of AIDS, and 640 cases of AIDS caused by AIDS. Among all detected and reported HIV-positive persons for the entire observation period, 33.2% were identified and officially registered [35].

According to medical records, as of 01.01.2022, 136 945 HIV-infected citizens of Ukraine were under observation in a healthcare institution in the Kirovohrad region (323.7 per 100 000 population), including 41 524 AIDS patients (indicator 98.1 per 100 thousand population).

Analysis of cascade data (Figure 1) reflects the sequence of services provided in connection with HIV and the gradual reduction of the number of persons receiving such services.



Figure 1 – Analysis of cascade data for the Kirovohrad region as of January 1, 2022

The construction of the cascade makes it possible to determine the extent of cuts in the number of people living with HIV and to draw attention to the main obstacles to ensuring universal access to antiretroviral therapy on the scale necessary to control the HIV epidemic.

The cross-sectional cascade in the Kirovohrad region is shown in Figure 1. It reflects the implementation of preventive and treatment programs as of January 1, 2022. It is built into account for all adults and children under medical supervision in a healthcare facility of the AIDS service and based on the indicators of monitoring testing, treatment, laboratory support, evaluation, statistical, and calculation data.

When analyzing the cascade, you need to pay attention to the following:

- The percentage of patients who are lost at each stage of the cascade, compared to the previous stage, with further analysis of the reasons for their withdrawal;
- The percentage of patients out of the total number of people living with HIV – cascade inputs with an undetermined level of viral load (suppressed viral load).

The estimated number of people living with HIV in the region at the beginning of 2022 (all age categories) is 4 400 persons. Evaluation data was obtained using Spectrum/EPP software; 2 974 people living with HIV – the number of people who are aware of their HIV-positive status and are under medical supervision in the health care facility of the AIDS service in the region as of January 1, 2022. In order to achieve the first 90% of the Fast-track strategy, another 1 492 people living with HIV must be identified and placed under medical supervision. Also, 2 468 people living with HIV (56% of the estimated number of people living with HIV) are an active dispensary group, namely the number of HIV-infected patients who underwent a medical examination at least once in 2018 [34].

Likewise, 1 726 people living with HIV (39% of the estimated number of people living with HIV) – the number of people receiving antiretroviral therapy as of January 1, 2022. It is necessary to involve another 1 838 people living with HIV in antiretroviral treatment to achieve the second indicator of 90% of the Fast-track strategy by 2023. The number of 28% of people living with HIV – the estimated amount who received antiretroviral therapy and, as of January 1, 2022, reached an undetectable HIV viral load. To achieve the third goal of 90% of the Fast-track strategy, it is necessary that by 2022, an additional 1 955 people living with HIV and receiving antiretroviral therapy will have an undetectable viral load.

Statistics by sex in 2021 are as follows: men – 326 (57.6%); women – 239 (42.3%); against 245 (56.8%) and 186 (43.1%), respectively, in 2018. The main route of transmission of HIV infection in 2021 is sexual, which was identified in 367 HIV-infected persons, which is 64.9% of the total number (Table 1). Parenteral route (through injection of narcotic substances) – in 119 people (21.0%), vertical route of transmission – in 79 children (13.9%) [34].

Table 1: Ways of HIV infectioning

According to the intended route of infection	2016		2018		2021	
	people	%	people	%	people	%
Sexual way:	303	58,3	267	61,9	367	64,9
Including homosexual	-	-	3	0,6	1	0,1
Parenteral way	98	18,8	75	17,4	119	21,0
From mother to child	118	22,9	88	20,4	78	13,8
Not specified	-	-	1	0,2	1	0,1
Total:	519	100,0	431	100,0	565	100,0

As of January 1, 2021, 640 HIV/AIDS patients registered in the region, compared to 490 in 2018; according to these data, the regional HIV/AIDS prevalence rate for 2021 is 58.8 per 100,000 people (for 2018 – 50.5 per 100,000 people).

During the reporting period, 228 AIDS patients were registered, and the AIDS incidence rate was 23.7 per 100,000 population. During the same period last year, 162 AIDS patients were taken, which was 16.7 per 100,000 population. Of them, 173 persons

(75.8%) were sexually infected, and 55 (24.1%) were by injection [29].

According to the results of seroepidemiological monitoring in 2021, 618 HIV-positive persons were identified, and the overall infection rate was 1.1%. The prevalence rate of HIV among people from groups at increased risk of infection is 4.9% compared to the same period last year – 2.7%, an increase of almost two times. However, the prevalence of HIV among persons diagnosed with sexually transmitted diseases (code 104) remained at the same level as last year. The priority of state policy in combating socially dangerous diseases is to ensure equal access of representatives of groups at increased risk of HIV infection and the general population to treatment and preventive services.

The National Targeted Social Program carries out the organization of medical care for HIV-infected and AIDS patients for Combating the HIV/AIDS Epidemic for 2014–2021 with the participation of state institutions/health care institutions, the public, and a wide range of international partners. 37 AIDS prevention and control centers, including 24 regional Kyiv city AIDS centers and 12 city AIDS centers in regions with a high HIV prevalence. Inpatient departments with 296 beds are operating in 9 regional AIDS centers (from now on referred to as RCCs) (Figure 2).

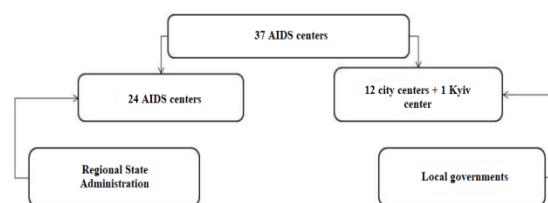


Figure 2 – Specialized network of subjects to combat HIV/AIDS (state sector)

As can be seen from Figure 2, medical services in the field of combating HIV/AIDS as a tool of state-public interaction remain at present entirely under the control of the state as a management entity. Even in the conditions of decentralization of management, the specialized network of medical and preventive institutions at the level of territorial communities is represented by a much smaller number, which limits patients' access to medical services of a specialized network and needs to be resolved in favor of the needs of the territorial community.

Therefore, 61 beds have been allocated to provide quality and palliative care. All RCSs have laboratories for the diagnosis of HIV infection. A vital component of the RCS activity is establishing HIV infection, dispensary supervision of AIDS, and their treatment using ART.

From 2015 to the present, AIDS centers have provided access to the population of the regions to integrated services for counseling and testing for HIV infection, prevention of HIV transmission from mother to child, post-contact prevention, diagnosis, prevention, and treatment of opportunistic infections, ARV therapy, laboratory monitoring of the course HIV infection and the effectiveness of ART, diagnosis and treatment of STDs, viral hepatitis B and C, counseling on family planning, social support for people with HIV/AIDS [5].

## 5 Discussion

Management will be effective only when based on a solid, comprehensive, evidence-based information base [17]. In recent years, experts in the field of countering HIV/AIDS have increasingly used the term "strategic information."

Strategic information in the field of HIV/AIDS is information suitable for making managerial decisions, clarifying global issues in the context of planning measures to combat HIV/AIDS, and assessing the state of development of the epidemic and the effectiveness of influencing it. A significant amount of data has

been accumulated in the field of combating HIV/AIDS both at the national and local levels. However, processing these data to obtain the necessary information, and providing access to information for all interested parties, especially decision-makers, requires more technical capabilities [24], knowledge [11], skills [3], and time from specialists and forms a request for improving the quality of information preparation.

The type of information needed to monitor and evaluate a program, project, or intervention is best described by a logic model that shows the sequence of inputs, processes, results, consequences, and impacts in a continuum of the so-called "results chain" (Figure 3).

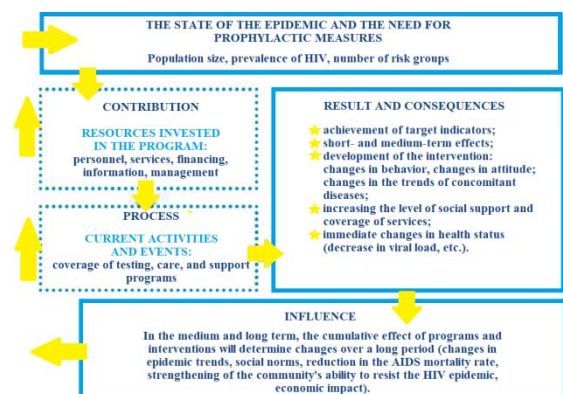


Figure 3 – Logical model: type of information on monitoring and evaluation of the program in the field of combating HIV/AIDS

The logic of the necessary strategic information is consistent with the indicators of the national monitoring and evaluation system.

Information in the field of combating HIV/AIDS can be conditionally divided into six main components that correspond to the global structure [36] and levels of the monitoring and evaluation system [37]:

1. Assessment and planning – analysis of the situation, analysis of the response, needs of participants, analysis of resources, cooperation plan.
2. Contribution – regulatory and legislative framework, budget, material and technical resources.
3. Process – any activity aimed at fulfilling the set tasks (number of trained specialists, conducted events, produced/distributed materials, etc.).
4. Result – the range and quality of services provided to achieve the results, and the degree of their coverage of different population groups (number/percentage of those covered).
5. Consequences – changes in knowledge, attitude, and behavior affecting the health of the population and the spread of the epidemic.
6. Impact – significant changes in the population's health and the economic situation resulting from the effectiveness of measures to combat the HIV/AIDS epidemic. Strategic information in combating HIV/AIDS can be obtained from various sources (Table 2).

Table 2: Sources and forms of presentation/dissemination of strategic information

Sources of strategic information	Information resources (form of submission/dissemination of strategic information)
Epidemiological surveillance of HIV/AIDS	Reporting documentation of organizations/institutions
Program monitoring, program evaluation	Informational and analytical publications
Evidence-based research based on factual data	Analytical reports
Expert evaluations	Evaluation results

Information management systems	Materials for seminars, conferences, meetings
Routine healthcare information systems	Normative and legal acts
Statistics of demographic indicators of the population	Protocols, standards, methodological recommendations Electronic databases, etc.

Epidemiological surveillance of HIV/AIDS involves a comprehensive assessment of the dynamics of the epidemiological process in space, time, and among defined population groups. The purpose is to plan and timely implement scientifically based preventive measures for combating the HIV epidemic, evaluating effectiveness, and developing an epidemiological forecast. The second generation of epidemiologic surveillance is a component of the national monitoring and assessment of measures' effectiveness, ensuring control of the HIV epidemic.

The purpose of surveillance is to track the trends of changes in the spread of HIV infection and obtain information about potential behavioral factors that cause the spread of HIV among the population and the use of this information for educational activities, planning, monitoring, and evaluation of the effectiveness of preventive programs among target groups.

To plan effective prevention measures and determine the stage of the epidemic, the second-generation surveillance system combines the following methods:

- Biological surveillance for HIV/AIDS (sentinel serological surveillance for target population groups; regular screening of donor blood; regular screening of persons from high-risk groups for HIV infection; screening of samples obtained during special population surveys, etc.);
- Monitoring of behavior (regular cross-sectional studies among the general population; regular cross-sectional studies in target groups);
- Other sources of information (epidemiological surveillance of registered cases of HIV infection and AIDS; registration of fatal cases; epidemiological surveillance of other diseases that have a high level of spread among patients with HIV infection, such as tuberculosis, parenteral viral hepatitis, etc.).

*Program monitoring and evaluation.* Program monitoring is tracking the progress and results of implementing programs/projects and their comparison with the previously developed action plan. Such information is used to make informed decisions about further deployment and improvement of the program [26].

The evaluation of the program, which both direct implementers and external experts carry out, reflects the results of the implementation of the program (coverage of services, the level of capacity development), behavioral changes, or the overall impact on the situation (for example, reducing the level of HIV transmission). Thus, in 2012, an external evaluation of the implementation of the National Program for HIV prevention, treatment, care, and support of HIV-infected and AIDS patients for 2009–2021 was carried out in Ukraine. Based on the results of this assessment, achievements, and shortcomings in response to the epidemic, problematic aspects that require strengthened actions, were identified. The developed recommendations were taken into account during the preparation of the National Targeted Social Program for combating HIV/AIDS for 2014–2018, approved by the Law of Ukraine, dated October 20, 2014, No. 1708-II.

At the local level, the responsible implementer of the program (as a rule, this is the department/department of health care of the local state administration) once a year prepares the generalized information on the state of program implementation (submitted to the structural unit on economic issues of the local executive body). The information should contain data on the planned and actual volumes and sources of program financing, the fulfillment of performance indicators in dynamics since the beginning of the program, and an explanatory note on the work of co-executors of



the program regarding its implementation. In case of the program's failure, it is required to justify the reasons. The information is used for:

- Analysis of program effectiveness;
- Providing suggestions on expediency;
- Continuation of its financing and implementation;
- Informing about the progress of the program;
- Reporting about the point of the activities carried out (at meetings of the local government, which sets the deadlines and frequency of reporting and establishes them in its decision to approve the program).

The active development of the Monitoring and Evaluation system (M&E) in the field of combating HIV/AIDS in Ukraine today gave an opportunity to collect a vast array of diverse information about the course of the epidemic process at the national and regional levels, about certain groups of the population, their behavior, needs, volume services provided, volume and structure of costs for epidemic prevention, etc.

Monitoring the HIV epidemic and the response to the epidemic provides the necessary information base for analyzing and forecasting the situation, forming strategic goals, developing priorities, and determining M&E indicators at national and regional levels. Without this information, it is tough to ensure the success of management decisions and the effectiveness of measures to prevent HIV infection among the general population and high-risk groups, treatment, care, and support of people living with HIV.

The Center of Medical Statistics of the Ministry of Health of Ukraine ensures the functioning of the Ukrainian medical and statistical information database and the European Database of Statistical Information "Health for All." The databases contain a powerful array of fundamental statistical indicators on health care of the regions of Ukraine (Ukrainian database) and European countries (WHO) and software for presenting these data in a convenient graphic form (maps, diagrams, tables). These databases are valuable tools for comparative assessment, analysis of the state, and trends in the development of the health care system.

National and regional M&E centers also use other electronic information systems:

- Electronic monitoring tool for Antiretroviral (ARV) drugs is intended for monitoring the movement and use of ARV drugs, which is the main element of the automated management system for tracking the volume of stocks and consumption of ARV drugs (implemented at the regional and national levels);
- Monitoring of replacement maintenance therapy programs is carried out under the determined indicators and the developed software product in all regions of the implementation of these programs within the performance of the 10th round of the Global Fund (GF) and other partners' support;
- The e-TB Manager system is an electronic register of tuberculosis patients: in one tool based on Web technologies, all data (cases of the disease, anti-tuberculosis, and other medical drugs) necessary for the implementation at various levels of the National Program for combating tuberculosis, and for providing the necessary information online, for making urgent decisions and epidemiological control in situations where intervention is required.

M&E is often seen as a reporting, oversight, and control tool to find performance deficiencies [10]. However, this perception of M&E hinders the full development of this system, targeted use of data, and establishment of constructive interaction between specialists, experts, and decision-makers. The M&E system provides an understanding of the trends in the development of the epidemic process and the level of adequacy, sufficiency, and effectiveness of HIV/AIDS countermeasures. Also, it indicates the need for their strengthening and improvement. A fully

functional M&E system ensures that relevant and high-quality information is available at the right time, place, and format to manage prevention, care, treatment, and support activities.

In Ukraine, the monitoring and evaluating the response to the epidemic provide strategic information for analyzing the achievement of the set goals and decision-making at the regional and national levels [15]. Monitoring and evaluation are carried out by forming a single list of indicators, developing methods for collecting and processing such hands, conducting an analysis of the necessary data, and using the monitoring and evaluation results to make management decisions. Official documents must approve the critical indicators of the M&E system.

The most comprehensive document on strategic information in combating HIV/AIDS is the Plan for monitoring and evaluating the effectiveness of implementing the National targeted social program for combating HIV/AIDS for 2014–2018. It is approved by order of the State Service of Social Diseases of Ukraine dated 15.01.2015 No. 2. The Plan contains M&E indicators (Figure 4), their collection, and calculation methodology.

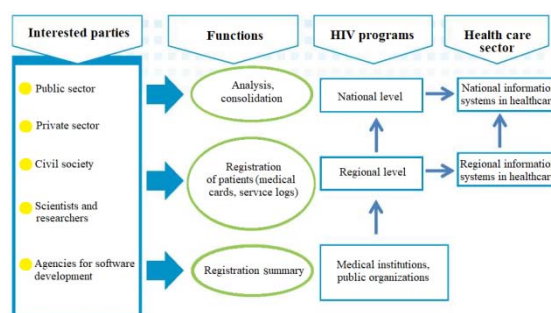


Figure 4 – The main components of effective data movement in combating HIV/AIDS

The content and numerical values of these indicators are a clear example of strategic information, which, thanks to the regular group, captures the dynamics of changes in hands for prevention, treatment, care, and support at the national and regional levels and also allows comparison of these data between regions.

Regional M&E indicators are formed based on national indicators and approved by local executive authorities. They reflect the state of implementation of tasks and measures of regional targeted social programs to combat HIV/AIDS and provide a generalized picture of the region's response to the HIV epidemic.

The list of regional indicators contains the following:

- Mandatory indicators included in the Monitoring and Performance Evaluation Plan;
- Particular indicators that reflect the region's peculiarities when determining the results, consequences, and impact of the implementation of regional programs. A list of M&E indicators of the effectiveness of the National Targeted Social Program for Combating HIV/AIDS for 2014–2018.

Ensuring an efficient data flow is carried out to:

- Ensure adequate data flow; it is vital to determine what information is collected and used at each level of the M&E system and how it is transferred to the next level. Furthermore, it is necessary to ensure verification, continuity, and complementarity of information at all levels to avoid duplication. Figure 4 shows the main components of practical information flows in combating HIV/AIDS.
- Provide various sources and partner data for M&E and the health care system coordinates. The data exchange and reporting procedure are defined and agreed upon by all interested parties and fixed in the M&E plan.
- Create prerequisites for adequate data flow, including, in particular, an agreed list of mandatory indicators (with data

distribution by gender and age), which relevant partners collect at each level; approved report periods and reporting deadlines; interaction and organizational and technical consistency of information systems.

Since one of the main tasks of regional M&E centers is collecting and analyzing information on regional indicators, these centers are a critical organizational structure that ensures the organization of compelling data flows, forms, and disseminates strategic information on HIV/AIDS at the regional level.

## 6 Conclusion

HIV/AIDS is a leading healthcare problem in many world countries. The epidemic of HIV infection in Ukraine is one of the most severe among the countries of Eastern Europe. This problem is particularly acute among young people.

The spread of socially dangerous diseases among the population and the intensity of the epidemic process as an indicator of the quality of management activities in combating HIV/AIDS is a pandemic that has already affected 40 million people worldwide. Moreover, the number of people infected with the human immunodeficiency virus (HIV) is constantly increasing. Today, it is undeniable that the HIV/AIDS problem is not purely medical but represents one of the biggest threats to social and economic progress in the world.

According to the research, it is determined that this is one of the most difficult challenges for the international community. It poses a threat to the national security of the countries of the world. The HIV/AIDS epidemic continues to spread in Ukraine and the world. At the same time, measures taken by state institutions and authorities to prevent the spread of the epidemic are insufficient to overcome the outbreak.

State-public interaction in combating HIV/AIDS in Ukraine is an actual direction of state social policy – one of the measures of the active state policy of Ukraine's integration into the European space. The process of state-public interaction is considered from the perspective of the stages of its development and correlated with the characteristics of the interaction subjects, their main features, functions, and properties. The normative-legal mechanism of interaction needs further improvement in terms of qualitative changes in the content of legislative and normative-legal acts, including departmental ones, regarding interaction in conditions of decentralization of management, other classification, periodization, and systematization of the national normative-legal framework for the purpose of its development and bringing it into line with the norms of international law (standardization of services in the field of HIV/AIDS).

The effectiveness of prevention management is ensured by integrating prevention measures with treatment, care, and support to meet the needs of clients from different groups. Foreign models of interaction between state bodies and institutions of civil society in the fight against HIV/AIDS are based on the principles of: partnership (all those involved in the implementation of the programs must have common goals, strong motives for action, tools for work that do not conflict with the interests of partners and at the same time strengthen their ability to perform essential functions); multilevel (representatives of all levels – central, regional, local) are involved in the implementation of programs; interdisciplinary (work can be maximally practical under the condition of joint efforts of different industries). Only the interaction of decision-makers, professionals, and stakeholders in decision-making based on evidence-based data ensures an appropriate level of response to the dynamics of the HIV epidemic in all components: prevention, treatment, care, and support.

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