MODERN EDUCATIONAL TECHNOLOGIES IN THE TRAINING OF SPECIALISTS IN THE AGRICULTURAL SECTOR DURING THE CRISIS

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The research is devoted to the urgent problem of formation of professional and innovative competence of future agronomists in the crisis conditions of the higher education system of Ukraine due to the consequences of the pandemic and the war. Modern approaches to the design of the content of education under martial law are highlighted. The structure, main trends and features of forms and methods of training specialists with a focus on new problems and challenges are revealed.

The publication is addressed to heads of higher educational institutions, pedagogical and research workers.

Table of Contents

MODERN APPROACHES TO DESIGNING CONTENT EDUCATION IN CRISIS SITUATIONS

Olena Dzhedzhula[1]

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Abstract. Today, the existence of independent Ukraine as a civilized country with a European vector of development is under threat. For higher education, the problem of training qualified specialists capable of rebuilding the agricultural sector of our country is extremely acute. After all, military aggression led to the loss of human potential, including the displacement of participants in the educational process within Ukraine and abroad (more than 2,000 educational institutions were damaged by bombings and shelling, more than 200 of them were completely destroyed); among pupils/students and teachers/teachers there are killed and wounded (since the beginning of the war, as of mid-August 2022, 361 children died and 711 were wounded; more than 8 million people crossed Ukraine). A significant number of higher education institutions were completely or partially destroyed (as of July 22, 2022, 7 institutions of higher education and 9 institutions of professional pre-higher education were completely destroyed, 46 institutions of higher and postgraduate pedagogical education, 69 institutions of professional pre-higher education were damaged. The greatest destruction and damage was experienced by institutions of higher education and professional pre-higher education of Donetsk, Luhansk, Kharkiv, Chernihiv, Mykolaiv, Zaporizhzhia regions. Part of the students lost full access to educational resources, although in the majority of institutions the educational process during the period of martial law was organized in the form of distance learning.

Higher agricultural education also suffered significant losses. In order to organize safe education, universities were relocated from the occupied territories, including agricultural higher education institutions: Dmytro Motornyi Tavri State University of Agrotechnology, Luhansk National

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Agrarian University (joined to Volodymyr Dal East Ukrainian National University by a separate order of the Ministry); Kherson State Agrarian and Economic University, etc. Therefore, we consider it urgent to search for innovative ways of high-quality professional training of future specialists during the war and after its end in Ukraine. *The subject of the research* is designing the content of education in crisis situations.

Overcoming the crisis in higher education caused by the war requires decisive action. Therefore, when developing educational resources, university teachers should focus on the Strategy for the Development of Higher Education in Ukraine for 2022–2032 and the Operational Plan for its Implementation in 2022–2024. This strategic document defines the priorities of the higher education system at the current stage of development of society and the country's economy, as well as the main characteristics that will be formed by 2032. The goals and objectives of the Strategy are a detailed road map for rebuilding and continuing the reform of the higher education system in the post-war period. Completing the tasks defined by the Strategy will reduce the destructive consequences caused by the full-scale invasion of the Russian Federation on the territory of independent Ukraine.

Modern realities require changes in the organization of the educational process in higher education. *The purpose of the article* is to study the conceptual foundations of designing the content of higher education, taking into account the peculiarities of the educational process in crisis conditions.

The research methodology is based on basic research in the philosophy, pedagogy and psychology of professional education; the general psycho-pedagogical theory of learning and cognition, in particular about the relationship between theory and practice; on the conceptual positions of pedagogy and psychology regarding the role of computer-oriented methods, means and forms of education in the professional training of future specialists in higher education, on person-oriented, systemic, integrative and professional approaches to teaching and education of students of higher education institutions. To solve the research tasks, the study used a complex: theoretical – analysis of philosophical, pedagogical, psychological, methodical literature and information resources of the Internet, which highlight the problems of forming the content of education in the process of professional training of future specialists; analysis of domestic and foreign

experience and conceptual approaches to the study of this problem; analysis of the peculiarities of the educational process in crisis conditions.

Conclusions. The war has intensified and expanded the challenges already facing education due to the COVID-19 epidemic. For the Ukrainian educational system, this test became a kind of incentive that opened a window of new opportunities, becoming a catalyst for long-overdue modernization changes in education. First of all, it is about the development of digital and distance education, in particular online. In accordance with these forms of education, the content of education should be adapted. When designing the content of higher education, it is necessary to take into account the integrative nature of modern educational disciplines, their purposeful orientation towards holistic and systematic preparation for professional activity. One of the important conditions for designing the content of education is to take into account the needs of the labor market in our country in the near future and focus on Ukraine's entry into the European educational space.

1. Introduction

For the organization of the new academic year in the conditions of war, the Ministry of Education and Science defined approaches to the organization of the new 2022/2023 academic year for all educational institutions and developed and provided recommendations for educational activities. One of these steps is the appointment of commissions for examination of universities on the subject of readiness to organize training and ensure the participants of the educational process. Particular attention is paid to defining the basic form of organization of the educational process. The development of higher education, despite the war with the Russian Federation, remains a priority direction for our country. It should be noted that from 2022, the financing of higher education will be significantly reduced, as expenses will be redirected to the reserve fund of the state budget to meet the needs of the army. Today, the Ministry of Education and Science is considering funding from international financial organizations and foreign partners as alternative sources.

During the war and in the post-war period, informational and analytical provision of higher education is of great importance. For this purpose, the State Scientific Institution “Institute of Educational Analytics” was created in Ukraine [37]. Among the priority directions

of his work in today's conditions is the development and implementation of measures to ensure the uninterrupted functioning of the information and analytical system of the AICOM PAC (software and hardware complex "Automated Information Complex Of Education Management" aimed at preserving the system of educational statistics, administrative information, reporting in in the field of general secondary, preschool, out-of-school and professional (vocational-technical) education, taking into account the challenges caused by the war; development and implementation of measures within the framework of the use of the information and analytical system of JSC "IRC" (System of Automation of the Work of Inclusive-Resource Centers, aimed at supporting the uninterrupted functioning of inclusive resource centers, ensuring the continuity and quality of education for persons with special needs, supporting inclusive education during the period of martial law; creation, implementation and technical support of operational data bases, ensuring the protection and preservation of information in the conditions of large-scale military aggression of the Russian Federation, in particular, constant cyber attacks from the enemy; development of the e-Journal subsystem in the context of a full transition to electronic record-keeping in educational institutions: the necessary systems and modules are being developed, the relevant regulatory and legal framework is being created; creation of new electronic questionnaires with the automated collection of information to estimate the number of displaced participants in the educational process, jointly with UNICEF Ukraine specialists, with the approval of the Ministry of Education and Science. The Ministry of Education and Culture within the limits of the specified powers to level the risks caused by military actions. Specialists of DNU "IOA" prepared a number of analytical materials regarding the state of education during the period of martial law, which were sent to the units of the Ministry of Education, Culture, Sports and Science of Ukraine, and Solid information management indicators were developed info [36].

The relevance of the study is due to the need to design educational resources in higher education, which will ensure high-quality training of specialists for the post-war reconstruction of Ukraine.

The purpose of the research is to determine approaches to the design of educational resources in higher education in crisis conditions

The scientific novelty of the study consists in the determination of approaches to the design of educational resources taking into account the trends in the development of higher education in the European Union.

The post-war development of education in Ukraine is considered in the context of European educational integration.

For this purpose, the government of Ukraine involved the international community. In particular, on July 4, 2022, a recovery plan was presented at a conference in Lugano (Switzerland), which includes the development of education. In the post-war period, the main tasks of the development of Ukrainian education were defined as: adjusting educational programs in accordance with educational losses caused by the war; restoration of the educational process in war-torn territories, as well as the infrastructure of educational and scientific institutions; provision of psychological support for participants in the educational process, introduction of programs for their psychological rehabilitation, adaptation, and support in the war and post-war periods; restoration of full-scale external independent assessment at admission and attestation of students; creation of an accessible and safe digital educational and research environment; ensuring the training of qualified specialists for the needs of the country's economy using the possibilities of dual education, public-private partnership, the introduction of financial autonomy of higher education institutions; restoration of grant support for scientific and scientific and technical developments by the National Research Fund of Ukraine; acceleration of integration into the European and world educational and research spheres.

Therefore, the main direction of the development of higher education in Ukraine in the post-war period will be its adaptation to European standards in the context of realizing the status of a candidate for EU membership, in particular, the harmonization of legislative, regulatory, institutional and methodological support in the field of higher education.

2. Conceptual foundations designing content education

European integration of education and science, namely the acquisition of the status of a program country in the EU Erasmus + program, a new architecture of adult education, integration into the European educational and research space, harmonization of educational and scientific legislation and state policy of Ukraine with the EU. This requires the search for an

innovative content of education integrated into the European space [37]. Let's consider key concept, are related from design content education.

– *Projecting is* a theoretical idea, idea, image, embodied in the form of a description, justification of what reveal essence idea and possibility him practical implementation. That's it definition recommended for wide application. Regarding the educational system, it is a selection from the scientific one knowledge accumulated by mankind for a certain period of time educational content that meets the goals teaching.

– *Content of education is* a pedagogically adapted system *of knowledge, abilities and skills, creative experience activity and emotionally valuable attitude to world*, assimilation which provides development personality.

The importance of higher professional education lies in the preparation of student youth for their participation in socio-cultural and professional activity in the technical sphere, formation of its worldview, development the system of values and ideals that determine the civic position of each individual, his attitude to the world and defining your own places in him [3; 4; 11].

The activities of people in any society are diverse, specific to different professions and specialties, therefore, in order to design the content of education, it is necessary to find their common components, which subject to assimilation regardless from character the future activity Social experience unites 4 elements, every with whose differs his own content and functions in storage and development culture, in personality formation [6; 9; 12; 14].

First element – *knowledge*, totality species helps construction in an individual general idea about surrounding reality, its orientation in necessary activity and others

The second element is *the experience* of implementing methods of activity. In the process of its assimilation, they are formed abilities and skills, the functions of which are to reproduce and preserve the accumulated culture, thanks to Why reproductive is provided activity society.

Third – *experience creative activities*. Him function – further development cultures Content creativity characterized by non-algorithmized intellectual procedures activity and consists in the independent transfer of previously acquired knowledge and skills to a new situation, vision problems in familiar conditions and environment, unexpected functions of familiar objects, structure objects and others.

The fourth element is *the experience of emotional value attitude to reality, to one's activity, to himself*, that is, the norms and system of value attitudes of this society to certain objects reality (objects, phenomena, principles, actions). The content of objects of reality includes various groups that invariably consist in the process of life activity (practical satisfaction of its needs and successful implementation of her plans, recognition and protection by the closest environment, tolerant and fair attitude to her people knowledge surrounding reality self-discovery) require purposeful education (own and others' health, honor and dignity, truth and justice, nature and culture native edges variety cultures and respect to others peoples competence and qualification, decency, intellectual activity and etc.). Function this an element of social experience – regulation of a selective attitude to the phenomena of reality and its different ones parties.

The main principles of forming the content of technical education are conformity in all its elements and on everyone levels needs society; unity substantive and procedural parties teaching; structural unity content education on different levels him formation at move from general to more partial and, after all, to specific forms its implementation in the learning process [26; 29].

General principle selection content education is correlation knowledge, ways activities, the function of a citizen and the system of social values to be assimilated taking into account satisfaction of the individual's specific needs and his right to choose an interchangeable variety objective content [31].

Today, there are several levels of consideration and formation of the content of education: on the theoretical level levels on levels academic discipline, on levels educational material.

Levels of representation of the content of education. The external manifestation of the content of education generally has several levels idea [37; 38]:

First level – content education in as a whole.

Second level – content education in accordance to levels teaching: basic general education, vocational education, secondary general education, higher education, scientific education. The second level also includes content through industries education (general, polytechnic, special and etc.).

Third level organizations content education is cycles educational discipline Cycles discipline intersect and therefore not characterize the content of education holistically.

The fourth level of the organization of the content of education according to the descending line – educational courses in mathematics, physics, chemistry, languages and others IN own totality they cover the whole mandatory theoretical preparation in educational institutions.

Fifth level – separate educational disciplines within courses So, school educational course. "Biology" is divided into botany, zoology, human anatomy and physiology, general biology; course "Chemistry" – on inorganic and organic chemistry [30].

The components of the fifth hierarchical level of the organization of the content of education – disciplines – also have complicated structure, sharing as rule, on sections, topics, lessons, i.e more on three levels organizations content of theoretical training, although the number of graduation levels for some disciplines may be i big, what is defined specificity content and volume educational material, also traditions.

Principles buildings content education.

Analysis available didactic approaches allows single out such general principles formation content Education:

Principle consideration of social conditions and needs society. Example, strengthening roles of a person in modern society is manifested in the increase of the humanitarian aspect of the content of education [39]. According to with this principle, depending on the needs of society, different influences on the selection of the content of education can do other principles: humanitarian, personal orientation, scientific and others Legislative reflection this principle is state educational standards.

Principle compliance content education goals the chosen one models education. Each one model or the concept of education sets requirements for the specifics of the structure and content of education. For example, in one concepts content may be subject assimilation, in another – environment for growing personal content education Didactic principles and regularities the chosen one models education find reflection on everyone levels designing her content: educational plan programs, textbooks, classes.

Principle structural unity content education on different levels community and on interdisciplinary levels. Structural unity everyone

needs it hierarchically interconnected elements content education, starting from equal general theory and educational disciplines to the level process education and personality of the student. Connections between different disciplines also are installed on general grounds: intersubject, metasubject and others.

Principle unity substantive and procedural and operational parties training, what provides inclusion in content education activities components – goal setting planning, educational technologies, transformative beginning subjects teaching. This principle it turns out in the need to include in educational programs not only the material being studied, but also types activity students – research, discussions, construction and others.

Principle availability and natural expediency content education it turns out in structure and volumes educational plans programs, textbooks, in optimal quantity material, what is being studied.

The most general principle of selecting the content of education is the ratio of socially significant values, knowledge, ways activity with realization rights student on choice interchangeable diversity objective content This principle provides consideration correlation the external and internal content of education, i.e., what is brought into the educational process from the outside and is created by myself a student

Requirements for the content of technical education. The scientific basis of the development of the content of education is not reflected only in educational and methodical literature, but also in legislative documents. So, for example, in The Law of Ukraine "On Higher Education" (Part III, Article 11) defines general requirements for content education, and also standards higher education:

1. The content of education is one of the factors of economic and social progress of society and should be focused on:

– software self-determination personality, creation conditions for her self-realization;

– development society;

– strengthening and improve legal state

2. Content education should provide:

– adequate the world level general and professional cultures society;

– formation in student adequate modern level of knowledge and level educational programs (learning stages) pictures of the world;

– integration of personality in national and the world culture;

– formation a person and citizen integrated in modern for him society and directed on improve this society;

– playback and development personnel potential society.

We emphasize that according to this Law, the content of education is at the level of a specific educational institution is defined plans and programs, what are being developed are accepted and are implemented this one educational institution independently. State bodies education management provide development based state educational standards only exemplary educational programs

Updating the content of education. The content of educational branches and individual academic disciplines is continuous is updated the basis for this is social changes and needs society, development trends education, dominance different tradition, changes educational standards, decision bodies management education, positions of program authors and textbooks.

The content of education also depends on the time-varying goals and conditions of study in a specific higher education institution, social orders, student orders preferences.

Let's give example, what illustrates necessity changes content education, conditioned changes terms implementation new ones achievements science If to beginning study telegraph in educational institutions, 60 years have passed since the invention of Morse, Darwin's evolutionary theory – 56 years, radio – 40, theories of the structure of the atom – 30 years, then schoolchildren got to know the transistor already in ten years after him creation, synthesis insulin, the newest transuranic elements, research space by help artificial satellites, bionics, cosmic biology, modern samples of various equipment – in four or five years. About the cloning of living beings, the students found out about the decoding of the human genome almost immediately after being informed about it means mass information.

In accordance to principles renewal content education content educational industries and educational discipline in future higher professional school will be change in such directions:

– updating educational material in accordance with changes in the surrounding world and achievements basic sciences; the inclusion of new sections and topics necessary for life in modern society, which have general cultural value, removal of obsolete ones sections;

– generalization of the content of education due to the isolation of fundamental educational objects, system-building concepts, principles, regularities with simultaneous unloading at the expense of secondary or outdated material.

Credit-modular approaches to formation content educational material:

– changing approaches to the content of education as an educational environment for personal development students; the transition to the concept of the open content of education, due to the tendency of the influence that intensifies on education new ones means and technologies activity (Internet, mass media and etc.);

– strengthening in the general educational process of the student component of the content of education, which implements the possibility of individual education student trajectories;

– development activity component content education, i.e inclusion in mandatory the minimum content of education of specially selected methods of activity, techniques and technologies, key competencies and others procedural elements, which ones necessary master a student;

– development and creation textbooks and educational manuals new type: personally oriented, profile, integrated, multimedia, hypertext and others.

On basis concepts structures and content education are being developed base educational plan, concepts individual educational industries, educational programs and textbooks.

IN available concepts under content education understand:

1) pedagogically adapted foundations sciences;

2) system knowledge, skill and skills, and also experience creative activity and emotional and volitional attitude to the world;

3) pedagogically adapted social experience mankind identical by structure human culture;

4) content and result process progressive changes properties and qualities personalities;

5) educational environment.

In its external manifestation, the content of education has the following levels of presentation: education as a whole – levels of learning – cycles educational discipline – educational disciplines – separate disciplines – sections, topics, lessons.

IN internal (personal) manifestations content education has levels presentation, what answer personal development of each specific student: knowledge, skills, abilities, types and methods of activity, abilities, value orientations. The structure of the internal content of education and its elements do not coincide with the structure and levels of external content. The internal content of education it turns out outside by created a student educational products.

Principles buildings content Education: consideration social conditions and needs society; conformity content education goals the chosen one models education; structural unity content education on different her levels of commonality and at the interdisciplinary level; unity of content and procedural and operational sides teaching; availability and natural expediency.

3. General didactic approaches to designing the content of education

Didactics, like every science, being a "field" of research activity aimed at producing new knowledge about nature, society and thinking, studies the phenomena of reality, their relationship, changes in processes. The subject of research in each science is its own, specific; it is based on the specificity of the processes. Didactics examines pedagogical processes. It provides an understanding of their structure, develops models, describes technologies. The practical significance of didactics will be obvious when, with the help of the developed methods, the teacher will be able to implement his professional actions according to effective pedagogical technologies, to correspond to them in his methods and experience.

If the educational process is specially organized (by specialists in special conditions), then it is a pedagogical process in which the pedagogical interaction of subjects is carried out in a holistic combination of the processes of education, training, and development. They can be defined as follows (from the subject's point of view):

– *education* – a specially organized process of controlling the subject's own needs (education of spirituality);

– *teaching* – a specially organized process of assimilation of new norms (socio-cultural) by the subject, new information that he considers useful and necessary;

– *development* – a specially organized process of education (cultivation) of the subject's own abilities, mastering the ways of civilized interaction with the surrounding world by performing actions.

Each of these processes enables the other two (and is enabled by the other two). This is their unity and integrity, and therefore, if learning takes place, it is both developmental and active.

When considering the system-creating function of the content of the pedagogical process, we proceed from the principle of its binary nature. This means that the functional purpose of the content of the pedagogical process is that each participant of this process (teacher and student) adds some new, necessary, useful information to their content, their activity for the optimal achievement of the educational goal, answering the same question; for what? what? as? The quality of interaction (binarity) will be characterized by the level of coincidence of answers.

Both students and teachers enrich their content if the process is organized correctly. Such popular innovations today basically contain the principle of democratization of education, which manifests itself in specific educational processes as the direction of the flow of information. If the pedagogical process is dominated by "vertical" directions of information flows, the interaction is called authoritarian, if models and technologies provide "horizontal" information flows, the interaction is oriented towards a democratic style of communication. These are not the usual technologies that continue to dominate in higher education institutions, but completely different ones that many teachers have to master.

The surrounding world contains systems, which means that the internal content must be presented systematically. Then the content of the pedagogical process is a system that reflects the difference between a certain external and the internal determined for development. This is the first rule that cannot be broken.

In the world around us, everything changes both naturally and artificially. Material changes in the material, ideas change in the ideal. The change of consciousness in the pedagogical process is carried out by specialists – teachers, creating models and technologies. Pedagogical technologies are, first of all, "processing" the content by dividing it into doses, designing each dose as a module [27; 31].

In addition, in the surrounding world, there is an exchange everywhere, which is provided by production and consumption. The exchange rules provide for two opposing processes:

– I choose, I take something not made by me; I choose according to my needs, goals, self-determination, I take according to my abilities;

– I make, I give what I made (thought, word, movement), that is, I put effort into making and designing the product so that it is needed by others.

Predominance in traditional technologies of presentation of content as a finished product in the form of a huge piece generates a passive consumer position, which is transferred into activity. The focus on independent production and design of content forms a market, entrepreneurial mindset, increases the value of conscience as a regulator of the "take – give" processes.

Thus, the most general norms, rules, requirements, principles that determine the category of content in pedagogical processes are:

– systematic presentation of each dose of content;

– technicality of design of the content in the module;

– productive exchange: consumption by choice combined with the production of one's own product.

If you have realized the problems as your own, and if the formed norms (principles, rules, requirements, etc.) seemed convincing to you, then, probably, you can move on to the most pressing question – how? How to reach this new bar, how to master the new norm not only at the level of knowledge, conviction, but also action. It is about the mechanism of problem solving, about methods, methods, technologies that require certain pedagogical abilities (at their core is the harmony of thoughts, words, actions), which are called in the pedagogical culture thinking technique, communication, reflection.

The technology that will be offered next is the technology modular structuring (systematicity, technological dosage on modules, productive exchange); the technology of transformation (a module is not only a constituent part, but also a conversion factor) of scientific knowledge into an educational discipline; the technology of compiling author's programs. It is simple, but laborious. The rules of a systematic approach, free (not tied to mechanical memorization) production of thoughts and their exchange, clearly dosed with the logic of construction and need, apply equally to both students and teachers.

At the same time, the following algorithm is recommended:

– determine the system-forming component of the discipline;

– analyze the possible grounds for dismemberment into elements, choose among them the most relevant ones in accordance with the needs of the students and the requirements of educational standards;

– create a situation of choice in further promotion to the elements of the new system;

– perform structuring with several levels depending on the desired depth of immersion;

– to give students the opportunity to choose an individual trajectory of advancement. This will reveal their activity aimed at solving their own professional problems, at performing actions, at development; the perceived problem will be solved: either by finding the necessary information, or by cultivating one's own abilities, or both together.

Problems of the content of the educational process can be considered in terms of traditional and innovative attitudes. Let's try to combine these approaches, but not in the "better-worse" category. They are incompatible here. The first ones were suitable for their time, for those requests that were formed as a social order. If we talk about the second, then we must agree that we live in a time of instability, permanent reforms, a general crisis that imposes its demands on people, calling them objective, that is, those that must be reckoned with and adjusted to.

The content of education is a volume of information about the surrounding world and about oneself in it, which has been researched, studied, organized into an educational discipline and intended for assimilation.

Modern education, focused on an innovative paradigm, which is based on the realization of spirituality and democratization, involves a number of specific tasks that are solved in the work with the content of education:

– The formation of the subjective position of the student, which ensures independence, the ability to make decisions in specific situations, to bear responsibility for the result of personal activity, puts forward requirements for the educational process: to provide training in these qualities. The content should be structured in such a way as to provide an opportunity for independent choice, individual promotion and self-evaluation of the result. This is possible if the program is presented not in the form of a tunnel through which there is only one trajectory "forward and straight", but also

in the form of a "planetary structure" – as the world is arranged, and then choose, decide for yourself, make a decision, prove the process to the result and be responsible for it.

1. Overcoming the stereotype that has settled in the professional consciousness of teachers is to "set a goal for the student". Today, educational technologies provide for the solution of the goal in the synergistic interaction of the teacher and the student by updating the content and method.

– Reproductive presentation of information involves its assimilation using the mechanism of attention and memory. This model of working with content does not help the development of intelligence, although it forms an information base for it, which is called memory, which is why we so easily solve crossword puzzles and get lost in non-standard professional situations that require productive thinking, which can be technologically developed if in educational technologies training is carried out to create productive content ("a product is born" – thought). Thought, as is known, is born in the search for connection, and connections in systems. Thus, the third task, the third factor of the innovative approach is formed – to load the student into the information system, where he needs, using reproductive content (information presented in a ready-made form), to develop personal subjective discoveries, productive content, productive knowledge (internal content). The ability to produce productive content is its intellectual ability. If the teachers do not consider it their professional task, then the intellect of a young specialist develops in the opposite way. Strict systematization of the content, its presentation in the form of matrices, tables (for example, D. I. Mendeleev's table) makes it possible to create conditions for productive thinking.

2. Modern Ukrainian education with obstacles overcomes the ways of identification with knowledge, it becomes clear that one of the components of the educational process is the process of development. The peculiarities of thinking, the type of communication, and the nature of activity depend on its technologies. The methods should have an organizational and active character, should develop abilities: communication, reflexive, should correspond to the means of professional activity. Increasing the time for students' independent work involves organizing it in such a way that students will independently select information, structure it, process it for specific situations, and use it to solve professional problems.

The listed factors form an innovative system of pedagogical activity. They are interconnected and exclude disconnection.

In accordance with the principles of updating the content of education, the content of educational branches and academic disciplines in the future higher professional school will probably change in the following directions:

– updating educational material in accordance with changes in the surrounding world and achievements of basic sciences; the inclusion of new sections and topics necessary for life in modern society, which have general cultural significance;

– generalization of the content of education due to the isolation of fundamental educational objects, system-creating concepts, principles, regularities with simultaneous unloading due to secondary or outdated material.

Credit-module approaches to the formation of the content of educational material:

– changing approaches to the content of education as an educational environment for the personal development of students; the transition to the concept of open content of education, due to the trend of increasing influence on education of new means and technologies of activity (Internet, mass media, etc.);

– strengthening in the general educational process the student component of the content of education, which realizes the possibility of individual education of the student's trajectory;

– development of the active component of the content of education, that is, the inclusion in the mandatory minimum content of education of specially selected methods of activity, techniques and technologies, key competencies and other procedural elements that must be mastered by the student;

– development and creation of textbooks and training aids of a new type: personally oriented, profile, integrated, multimedia, hypertext, etc.

On the basis of the concept of the structure and content of education, the basic curriculum, concepts of individual educational fields, curricula and textbooks are developed.

4. The lecture as a systematic link of the content of education

The variety of forms and methods of organizing the educational process, the use of innovative educational technologies in higher education, the search for alternative ways of imparting knowledge could not affect the fundamentality of the lecture-seminar form of organization of classes, which remains the leading one in the absolute majority of universities. The name itself indicates that one of the basic components is a lecture.

This term comes from the Latin "lectio", which translates as reading, and is a derivative "lector" – reader. This importance is due to the fact that initially in Ancient Greece, Ancient Rome, and then in the universities of medieval Europe, the main form of teacher's work was annotated reading of book texts.

At the present stage, the lecture acts both as an organizational form of education – a specific way of interaction between the teacher and students, in the framework of which a variety of content and different teaching methods are implemented, and as a teaching method a monologue presentation of educational material in a systematic and consistent form, mainly focused on fundamental problems science.

At the same time, the methodical literature expresses ambiguous opinions about the lecture as a form of training. Proponents of traditional didactics see its advantages in the fact that the lecture helps:

– to concentrate the information provided by the content of education in a sufficiently economical form;

– it is much faster than print editions to respond to changes in the legislative, normative base;

– to some extent compensate for the lack of the latest textbooks and manuals;

– to classify and comment on trends with a significant number of different, sometimes opposite, points of view on a certain problem;

– focus on the most difficult issues that are difficult to understand on your own;

– to form students' ability to listen and understand what they see and hear, to carry out such important mental operations as analysis, synthesis, comparison, etc.;

– to make direct contact, emotional and educational influence of the teacher on students, which no textbook can provide;

– to embody the principle of connection between theory and practice, to highlight the results of scientific activity, both one's own and that of colleagues;

– most effectively outline directions for further independent work. Opponents of this theory instead put forward the opposite arguments;

– the lecture does not correspond to the latest trends in the training of specialists, because in practice specialists are expected who have not only certain knowledge, but also, to a greater extent, skills and work skills;

– the lecture provokes reproductive learning, as a result of which creative independent thinking is inhibited, and the seminar class then turns into its retelling;

– at the current stage, the teacher has ceased to be the only source of knowledge, and therefore the student's independent work with textbooks, the Internet, etc. is much more effective;

– the lecture forces the learner to remain in the position of the object of the pedagogical process;

– simultaneous communication with a sufficiently large audience does not allow for a differentiated approach, and thereby make the lecture interesting and useful both for an excellent student and for someone who is not distinguished by special abilities;

– the lecture is regulated in time, and therefore it is far from always possible to cover all issues properly;

– sometimes lectures turn into dictation, during which not everyone has time to understand what the teacher said;

– in the absence of technical means of learning during the lecture, only auditory analyzers are used, while approximately 80-90% of people mainly receive and remember information through the “eye-brain” channel. Therefore, according to psychological factors, it is possible to ascertain a certain violation of the laws of perception;

– the presence of foundation lectures approved by the department does not allow to fully realize the individuality of the teacher.

All of the above gives reason to claim that the time has come to realize that the lecture as a general classroom form of work is the most ineffective among other forms of student education in higher education. Undoubtedly, such a position is distinguished by its categorical nature, but the given counter-arguments to some extent indicate ways of improving the lecture as a form of organization of the educational process.

It is extremely difficult to find an alternative to a lecture, because it performs a number of very important functions, including:

– information function – the lecture allows you to concentrate the information that represents the content of education in the most concentrated form; along with the transfer of the system of necessary knowledge about the subject, it helps the audience to independently build this system in the process of "image – thinking";

– methodological function lectures ensure the development of a certain scientific approach to the subject, which consists in studying the subject in motion and development. At the same time, the lecturer demonstrates a creative laboratory of the genesis of an idea, law, principles, theory of knowledge, phenomena of nature and society, culture;

– educational function lecture has its own specific features, since, on the one hand, it encourages the teacher to improve himself in the pedagogical field, and on the other hand, it forms the value and moral orientations of the listeners, their public activity, understanding of social and professional norms of behavior;

– developmental function lecture is related to the task of forming the cognitive activity of the audience, requires conducting lecture teaching as a process of independent creative cognition. The task is to include the audience in the process of scientific research, together with the audience to rethink this process, leading listeners (cadets, students) to self-awareness of the obtained conclusions;

– orienting function lectures allows you to direct the listener (cadet, student) in the flow of information obtained from various sources – lectures, seminars and practical classes, study of educational and scientific literature, etc. Carrying out a review of scientific literature, revealing the essence of scientific schools, analyzing theoretical positions, the lecturer highlights the main, essential, indicates the correct way to solve the tasks, helps to highlight the main thing and discard the superfluous, builds the received scientific information into a clear system;

– organizing function lecture is extremely significant, it makes the lecture irreplaceable, the most important link of the educational process. In all the diversity of forms and methods of educational activity, only the lecture is able to unite all elements of the complex learning process, organize and direct the process to achieve the set pedagogical goals;

– diagnostic function it is manifested in the fact that, while giving a lecture, the teacher, while providing feedback, notes which issues were difficult for the audience to understand, which may cause complications in seminar classes in the future; how in the future it is possible to improve the presentation of this topic, etc.;

– stimulating function it is expressed in the fact that after a good lecture there is a desire to learn even more, to find answers to those questions that interested us with their ambiguity and problematic nature;

– systematizing function is that it is the lecture that makes it possible to most clearly demonstrate the place of an educational discipline in the system of sciences, to reveal intersubject and interdisciplinary connections, to implement the rule: "Teach a specialty, not a separate subject."

Of course, all these features of the lecture can only be highlighted for the convenience of research; in the live process of lecturing, they are closely connected and mutually determined.

The following didactic principles help to fully implement the listed functions and make the lecture full-fledged:

– Orientations of education for the realization of the goal of education. When preparing a lecture, the teacher must not only see its place in the academic discipline, its interdisciplinary and interdisciplinary connections, but also project the specifics of the future activity of the listener (cadet, student), which is realized through the content of education. Thus, one of the main rules of higher school pedagogy is materialized: "Teach not a separate subject, teach a specialty."

– Scientific and informative. When choosing material, the teacher should remember that the implementation of the content of education should be based on balanced, and often, primarily, generally accepted theories. The most difficult in this regard is the implementation of the dialectical law of unity and the struggle of opposites, while maintaining the stability and fundamentality of scientific thought and the dynamics of modern science.

– Logical and systematic. This principle runs through the entire education system, both at the stage of its planning and during the implementation of programs.

The knowledge imparted during the lectures should be imparted in a certain sequence, forming a kind of foundation for the following topics. The lack of logic and system when presenting the material does not allow to

understand the sequence, interrelationships, cause-and-effect relationships in the subject, significantly reduces the effectiveness of perception, leads to the transformation of learning into scholasticism.

– Consequences. Each lecture provides an organic connection with the previous material and a precise exit to the next one. When selecting and teaching classes, you should rely on previously acquired knowledge and possible experience. It should be taken into account that the presentation of the material in a completely finished form (all problems are solved, everything is completely clear, there are no questions) is not ideal from the point of view of didactics, while some problematic, planned ambiguity, incompleteness causes cognitive interest.

– Availability of the material presented. While preparing for the lecture, the teacher should answer the following questions: "Who is my listener?" What is his level of preparation, general knowledge? What is his age?". Of course, this will lead to a differentiated approach in the selection of materials. It is quite clear that a lecture on the same topic, delivered to cadets who do not yet have practical experience, to students of the Institute of Management or part-time students, should differ according to the principle of accessibility, taking into account the factor of the addressee.

As many of the lecturers think, scientificity and accessibility of education are principles that are always considered together and in unity. The difficulty lies in the fact that increasing accessibility often leads to a decline in scientific knowledge, and in a broader sense – to an unacceptable decline in scientific knowledge, lagging behind the development of science, economic and socio-cultural development. The task of the lecturer is to keep the scientific "bar" in mind, that there are people in the audience who are just studying the subject.

– Learning problems. The departure from scholasticism in education implies the rejection of such presentation of material, when all that remains is to retell the content of the lecturer. In the conditions of developmental education, the creation of problem situations, stimulation of independent search for solutions to issues acquires special importance.

Attention should be paid to the nature of the material in the lecture, from the point of view of its problematic nature. In this case, we can talk about the scientific problem and the so-called methodical (educational) problem.

In the first case, it is about the analysis in the lecture of phenomena not sufficiently revealed by modern science. In this case, the lecture presents an analysis of scientific hypotheses, ways of research and possible conclusions. Such lectures are given mainly in senior courses, most often in the form of special courses (special disciplines).

Methodical (educational) problem solving involves posing questions in the lecture that allow the student audience to conduct an independent analysis of issues known to science, but necessary for students to understand the process of cognitive activity. The lecturer thus encourages the audience to independent mental activity, directs their cognitive activity on the basis of material still unknown to the listeners (cadets, students).

– Historicity. The presented material should relate not only to modernity, but also to that era, the specific time when an idea was born, a phenomenon was considered, this or that fact appeared. This helps listeners (cadets, students) understand the history of ideas, hypotheses, scientific discoveries – the wealth accumulated by previous generations of people.

– The connection between theory and practice, learning and life. Each theoretical position should be connected with the prospects of further professional activity, with access to everyday life. This principle becomes basic for forming the student's learning motivation, as it clearly demonstrates why one cannot rely only on empirical experience, but one must necessarily know the theory.

– Unity of education and upbringing. One of the main rules of didactics declares:

"Educate while teaching, and educate while educating." Unfortunately, it sometimes happens that the teacher, focusing on certain information, overlooks the aspect of how it will affect the personality of the listener (cadet, student). Therefore, the behavior of the lecturer, all the examples and arguments given during the lecture should be projected on the ultimate educational goals of the learning process.

– Consciousness and activity. At the stage of preparation for the lecture, the teacher must find the levers of influence that would contribute to the development of learning motives. The transfer of the material is not an end in itself, it is necessary to bring to the consciousness of everyone who listens to the lecture, why it is important, what the listener (cadet, student)

can achieve by mastering the given topic. This principle has, in addition to everything else, a huge educational value, because thanks to it, conscious, proactive specialists are trained.

– Visibility The use of visual objects, models, mock-ups, schemes, graphs develops observation, attention, thinking, allows the teacher to get rid of monotony, and the listener (cadet, student) to learn the material most effectively. Thus, according to UNESCO, a learner remembers approximately 15% of information by hearing, 25% by sight, and 65% by simultaneous exposure to the auditory and visual apparatus. At the same time, the speed of information perception increases significantly.

– Strengths of knowledge. It is a kind of crown of all educational activities. According to this principle, the material should not only be understood and learned, but also retained in the memory for a long time, form the worldview of the individual. This is completely incompatible with scholasticism, mechanical memorization, since information nowadays is replenished in a geometric progression. Strong knowledge in combination with elements of creative, problem – based learning, the ability to create one's own algorithm of actions based on what has been acquired in the course of classroom classes and independent work allow us to bring our graduate as close as possible to the model of a specialist.

The teacher, who is entrusted with the responsibilities of lecturing, must have a sufficient idea of the types of lectures that are usually distinguished in modern didactics.

Taking into account the coexistence of proven and new forms of organization of the educational process, it is possible to conditionally divide the types of lectures into two large groups: traditional and non-traditional.

Among the traditional lectures by stages of learning, it is customary to distinguish the following:

Introductory lecture. As a rule, the study of an academic discipline begins. It is very important from the point of view of the implementation of organizational functions, because it outlines the boundaries and time allocated for the study of this discipline, the department's requirements for mastering the material, the features of conducting seminars and practical classes, the organization of independent work, and the form of control is indicated. In addition, it should be demonstrated how this educational discipline is related to what was studied at the previous stages, which

branches of science will most often have to be addressed during its study, how the acquired knowledge can be used during further training.

During this lecture, the teacher needs to develop primary motivation, during which each student can answer the question: "Why is it important for me to know this academic discipline?" How will I need it both now and in the future."

It is especially important to acquaint those who start studying the subject with the conceptual-categorical apparatus of this science, basic terms, put forward and justify the main methodological positions. It is at the introductory lecture that the subject and main methods of the studied science, the connection of theoretical material with social practice, personal experience of students and their future specialty are determined. For the introductory lecture, educational material is selected, which provides an initial introduction to the topics of the section that will be studied in the following classes. At the same time, its main task is determined by the need to arouse interest in the educational material of the topic, reveal the existing relationships between other topics, and explain the existing systematicity in knowledge.

Depending on the total number of hours allocated for lectures, the peculiarities of the organization of the educational process, the introductory lecture can be divided into the following varieties:

Introductory lecture. Attention is focused on issues related to the purpose and objectives of the course, the relationships between science and the academic discipline. There is a statement of a scientific problem, a forecast of the development of science, its connection with practice. The teacher talks about outstanding figures who made a significant contribution to the development of this science. If there is such an opportunity, he talks about the scientific achievements of the members of the department, about the directions of scientific activity of the department at the current stage and prospects for further development, if available:

– about scientific schools operating at the department. Such activity is very important because, on the one hand, it instills pride in one's educational institution, on the other hand, it allows students to navigate their own choice of research work.

Introductory lecture. Most often, it is conducted for first-year students who are undergoing the process of adaptation to the conditions of study

at this institution, or for part-time students who need to be directed to the rational organization of independent work. Its main purpose is determined by the need to outline the range of questions and problems that need to be worked out and highlighted in the next classes. Here, the general plan, the structure of carrying out certain educational work can be explained and substantiated, a system of individual tasks (theoretical, practical) that must be performed can be established, relevant conclusions can be demonstrated.

Instructional lecture. It is suitable for beginner listeners who are not yet familiar with the issues of organizing cognitive activities during classroom classes and self-training, do not have the skills of note-taking, library work, etc. It also prepares students for creative solving of educational and cognitive problems. This type of introductory lecture becomes especially important when a term paper is expected to be written in this academic discipline. At such a lecture, the department's requirements for the course work, advice on choosing a topic, stages of material collection, writing, preparation for the defense of the work are demonstrated. A concise analysis of the scientific and educational and methodological literature, which is recommended for processing, can be given. The terms and forms of reporting are specified. All this precedes further individual work.

The most common type of lectures among traditional ones is an informative lecture. In some manuals, you can find its synonymous name – "thematic lecture". Such a nomination can hardly be considered successful, since almost any lecture has its own topic. As for the proposed title ("informational lecture" or as it is sometimes called "informational lecture"), some may object to it, although information should not be confused with informativeness. The main thing is that this name reflects the main task of such a lecture – to present and explain certain information to students in accordance with the program, to address some problematic issues that exist in this regard in modern science.

An informational lecture, depending on the logic of presenting the material, educational goals, can also have varieties, among which the most common are:

Methodological lecture. Reveals the general and specific features of this science, its structure, and individual methods of scientific knowledge. In the senior years, after the passed exam in philosophy, students (cadets,

students) can demonstrate the ontogenesis of science, the effect of the laws of dialectics on examples of this field of knowledge.

General lecture. In essence, it is a logical continuation of the methodological lecture, as it specifies the connection of fundamental objects with a specific educational discipline, demonstrates systemic relationships, and gradually gives a holistic idea of the subject.

Lecture on theoretical construction. It is useful in working with bachelors, specialists and master's students who already have the skills to systematize and generalize educational results based on theory. Scientific concepts are taken as the theoretical basis of this type of informative lecture, legal cases or gaps in legislation are considered, that need to be solved taking into account theoretical principles. These lectures allow you to gradually prepare groups for the transition to problem-based learning.

Lecture-concretization. It aims at detailed and element-by-element study and assimilation of any concept, theory. It is characterized by a sufficiently large volume, therefore, it is not always possible to complete consideration of all issues in one couple's time. As a rule, the educational material of such a lecture is presented as an information block, which includes one or more interrelated concepts.

Sometimes such a lecture can take place as an analysis of specific situations, through which then generalizations are made. By the way, this method of conducting lectures is basic in the training of legal scholars in the countries of the Anglo-Saxon legal family, where case law is adopted.

Lecture on cultural and historical analogues. This type of lectures is most often used and recommended for use in such educational disciplines as "History of Ukraine", "History of the State and Law of Ukraine", "History of the State and Law of Foreign Countries", "Fundamentals of Roman Law" "State law of foreign countries" during the study of legal comparative studies. This type of lectures not only allows you to form a broad worldview due to comparisons, but also teaches systematization, selection of which can be applied in the conditions of building a legal state in Ukraine.

Integration lecture. It is characterized by the fact that the further development of the transformation of the acquired knowledge, the establishment of ties and relationships between their elements takes place on it. The purpose of such lectures is to train students (cadets, students) systems of knowledge based on awareness of general patterns, general

principles, gradual transition from individual to broader generalizations. The main function of this lecture is a differentiating one, which allows you to select from a large amount of acquired knowledge only those on which the main substantive and logical load falls and which are a support for establishing connections between the main concepts of the topic, course, subject.

Summarizing lecture. It is held at the end of the chapter or topic studied to consolidate the knowledge acquired by students. At the same time, the lecturer highlights key questions, widely uses generalizing tables, schemes, algorithms that will make it possible to include the acquired knowledge, abilities and skills in new connections and dependencies, transferring them to higher levels of assimilation, thereby helping to apply the acquired knowledge, abilities and skills in non-standard and search-creative situations.

A final lecture is used at the final stage of teaching a subject. It aims to summarize information at a new level, systematize knowledge to a certain extent, demonstrate the achievements of students (cadets, students), the dynamics of their success in mastering the discipline. Such a lecture is a great opportunity to demonstrate interdisciplinary and interdisciplinary ties, prospects for further education.

Review lectures occupy a special place among traditional lectures. As a rule, this type of training is provided from those academic disciplines that are submitted for state certification. Often, studying a discipline and returning to it at review lectures are distanced in time, so the main goal of such a lecture is the actualization of resistant knowledge. On the other hand, during it, scientific knowledge is systematized at a higher level, based on the scientific, conceptual and conceptual basis of the entire course or its modules.

Types of review lecture are:

review and repetitive lecture, which briefly reflects all the theoretical provisions that make up the scientific and conceptual system of this course;

an advisory lecture that supplements and clarifies the material of the review, highlighting the sections of the course that cause serious difficulties during independent study. Sometimes such a lecture is structured in such a way that 50% of the time is allocated to answers to specific questions that have arisen from students.

As for the classification of non-traditional types of lectures, there is every reason to talk about their approach to the complex of innovative educational technologies, about the search for slightly different approaches to the transmission of educational material. The main thing that they are not in contradiction with the above classification, but can be considered as its organic addition, since they differ, first of all, in the form of information presentation. The non-traditional category includes the following:

Mini-lecture. It can be conducted by the teacher at the beginning of any type of classroom classes (seminar, practical or laboratory) for ten minutes on one of the questions of the topic being studied.

The multi-purpose lecture is based on the complex interaction of individual elements: presentation of the material, its consolidation, application, repetition and control.

A problem lecture is an approbation of multivariate approaches to the solution of the presented problem. It activates students' personal search, search and research activities. At the first stages, in groups with a high level of cognitive activity, the teacher can build a lecture in such a way that he poses a problem and demonstrates possible ways to solve it in front of the group. In the future, you can move on to partial search methods, namely: the lecturer creates a problem situation and encourages students to find a solution. This is how such a problem lecture as a brainstorming lecture ("brain attack") is organized. Using the fact that there are usually several groups at lectures, teams are created that must provide their version of the problem solution within a certain time. The teacher monitors not only the correctness of the answer, but also the argumentation, and if necessary, he himself gives a detailed comment, which is recorded in the notebooks.

The peak of problem-based learning is the use of heuristic methods, that the teacher, preparing for the lecture, selects and arranges the educational material in such a way for students independently single out the problem from it and demonstrate their own options for its solution at the seminar session.

A lecture with pre-planned mistakes. At the preparatory stage, a certain number of substantive, factual, and methodical errors are included in the text of the lecture. At the beginning of the lecture, the teacher warns the audience that there are a certain number of errors in this text. During a lecture or during preparation for a seminar, listeners (cadets, students) find

these mistakes, qualify them, and provide correct answers. Such a lecture performs stimulating, control and diagnostic functions.

Lecture-conference. It is held according to the scheme of scientific conferences.

Contains a preset problem and a system of reports (up to 10 minutes) on each question that illuminates the problem. At the same time, the speech is prepared as a logically finished text, which is the result of the student's independent work. The function of the teacher is to manage the preparation of such reports for the lecture. During the lecture, the teacher can somewhat summarize the material, help the "beginner lecturer" from among the students, if he does not quite manage to answer the questions of the audience. This type of lectures, on the one hand, significantly increases the role of self-training, on the other hand, it allows identifying the reserves of scientific and pedagogical personnel.

Lecture-press-conference – at the beginning of the class, students must ask the lecturer questions in written form, which the lecturer analyzes within a few minutes and gives meaningful answers, which must be formed into a coherent text. Again, with a sufficiently high level of preparation of the audience, questions can be covered with the participation of the strongest listeners (cadets, students), who take a place next to the teacher.

Lecture-conversation. In addition to students' questions, she allows them to express their point of view on one or another issue. At such a meeting, the lecturer himself must ask questions to the students in order to hear their statements and the presentation of their position. This is how the basis for the exchange of ideas and conversation is formed. The methodological specificity of the lecture-conversation is that the lecturer acts both as an informant and as an interlocutor, skillfully guiding the course of the dialogue with counter-questions.

A lecture-conversation. It can turn into a lecture-dispute, and, so to speak, naturally, and as a result of the planned actions of the lecturer. One of the functions of the lecturer is a short speech at the beginning of the meeting, but then there is not just a conversation-dialogue with students, but a polemical conversation. The lecturer's functions involve posing questions that lead to a clash of opinions and, respectively, to the search for arguments, to an in-depth analysis of the problems under consideration. In this case, the lecturer's methodological skill includes not only the ability to

deliver a monologue lecture, answer questions, and conduct a conversation, but also the skills of organizing a dispute and skillfully managing it. The topic of the discussion should be chosen and developed in advance. But one potential debate is not enough. The topic should provide an opportunity for the participants of the discussion to come to the final result, to the truth. Film (video) lecture. Helps the development of students' visual thinking. The lecturer selects the necessary film (video) materials according to the topic being studied. Before the start of the review, the students are given the target setting, during the review of film (video) materials, the lecturer comments events happening on the screen.

Lecture-visualization. It is the transfer of oral information transformed into a visual form by technical means of education. The lecturer widely uses such forms of visualization, which themselves act as carriers of meaningful information (slides, films, tablets, blueprints, drawings, diagrams, etc.). This type of training is characterized by the wide use of so-called "reference signals", when all information is encoded in the form of certain symbols, signs, and then the teacher comments on their functional and systemic relationships.

Lecture-excursion. A rather unconventional type of lecture, as it is not held in an audience familiar to everyone, but involves going directly to the practical units of the OVS, museums, training grounds, etc. The situation itself becomes a kind of visualization that cannot be reproduced in the conditions of an educational institution.

A lecture using the feedback technique (interactive lecture). It is possible both with the help of ordinary verbal (verbal) means and with the help of technical means of learning in specially equipped classrooms. If the lecturer goes the traditional way, then it is somewhat reminiscent of a lecture-conversation with the difference that the maximum load when answering questions falls on the students themselves. Only if when no one in the audience can give the correct answer, the teacher explains it himself. In general, when preparing and conducting interactive lectures, it is desirable to distribute the necessary didactic material, methodical recommendations for studying the topic in advance, so that the audience, preparing for this class, writes down definitions, the most important information in notebooks. The lecturer, on the other hand, finds out how understandable what was worked out independently, and comments on the most difficult places.

The positive aspects of the interactive lecture are obvious. First, the first flaw for which lectures are criticized is overcome: the student ceases to be a passive object of learning, and prepares not only for seminar and practical classes, but also for lectures, on which, by the way, it is allowed to post grades. Secondly, it is possible to implement a differentiated approach by diagnosing the level of awareness in the topic. Thirdly, there is time for a detailed consideration of the most difficult moments of the lecture, since there is no need to dictate the main provisions and definitions – they are already recorded in the notes.

The development of technical means of education has led to the fact that the term "feedback technique" to some extent loses its abstract meaning. In equipped classrooms, the lecturer can monitor the reaction of the hall through special sensors. For example, during a lecture, a question can be asked, and the audience can choose answers to it (such as as it happens in the game "The First Million", when they turn to the hall for help). Qualitative analysis of answers signals how correctly the audience understands a particular question.

Binary lecture. The name itself indicates that there are two lecturers in the audience at the same time. Such a lecture is appropriate when, for example, there are different approaches to solving problematic issues and each of the teachers defends his own positions. It is also appropriate for the realization of interdisciplinary connections, when one problem becomes integral for teachers of different departments, for example, criminal and administrative law or criminal process and criminology. If two or more lecturers consider a common topic for them in one and the same audience, at the same time answering students' questions or having a conversation with them, then a situation known as a "round table" arises. This technique, which has spread in lecture practice, maximally democratizes communication between lecturers and listeners (cadets, students), because it assumes their equality as interlocutors who collectively discuss a problem. However, at the "round table" there are leaders – specialists in specific issues. There should also be a leader-organizer, whose functions are to follow the regulations, to discipline the participants of the conversation, etc.

Another option for organizing and holding a binary lecture is possible. Embodying the principles of the unity of theory and practice in the educational process, familiarizing students with advanced experience in the

field of agriculture, the department can invite a practical worker to such a class. Thus, an organic duet is created: a teacher, who has a good theoretical training, and a practitioner who perfectly knows the specifics of the work and can tell about individual professional techniques that are within the scope of the topic being studied.

Special lecture courses usually go beyond the scope of the curriculum, significantly expanding and deepening the scientific knowledge obtained within the framework of the program, facilitate their creative thinking. Through special courses, students are introduced to the problems of a certain scientific school, they go through a school of creative search thinking. Most often, special courses are read on the material of the lecturer's research work.

As practice shows, questions after the lecture – and according to the time spent, and due to the educational significance of this type of contact with students, it often turns into an independent type of lecturer's work. This means that we can talk about the right to the existence of a special active form: lecture-briefing. Such a lecture consists of a short (15-20 minutes) message from the lecturer and his answers to the students' questions (45-60 minutes). The lecture-briefing does not offer fundamentally new elements of the methodology, but during the preparation it is necessary to carefully consider the content and form of the introductory message. It should be informative, clear, short, compositionally complete. Performances of trainees (cadets, students) are not expected. The principle methodical structure is as follows: lecturer's message – students' questions – lecturer's answers.

It is clear that any classification is quite conditional, so it depends only on the teacher himself which forms and methods of work to choose during the lecture. It depends to some extent on the experience of the lecturer and on the level of his methodical preparation, sometimes, even, from courage, because it is not so easy to move away from established, tested ways and try something new. Of course, when choosing a non-traditional type of lecture, the teacher must consider: is the audience ready for such an activity? What to do, if during the lesson itself it turns out, what is a deviation from the pre-planned? The teacher's psychological readiness for the experiment (including its unsuccessful outcome) is also of considerable importance. However, this does not mean that you should give up trying innovations altogether. Maybe next time things will work out for the best and in the

end the students will feel that their teacher meets the requirements of 21st century education.

5. The connection between the content of education and the purpose and methods of learning

Goals, content, methods are elements of the "pedagogical process" system, and they should be considered in integrity and unity.

If the content is not designed according to the rules of the module: it has not been updated (impact on needs), productive work is not ensured (production of one's own product – thoughts, words, movements), then the integrity of the process is violated, the unity of education, training, development as components of the pedagogical process is absent. The connections between the content and the goal, which may not be there at the beginning of the pedagogical interaction, are broken. This means, that the question remains unanswered: "what is it (content) for me?" And then the process idles without result. The listeners' goals are grown, formed, fixed to the state of self-determination – "I know why", "I know what", "I know how".

At this stage, students' doubts are not excluded, which must be expressed, discussed, compare with the opinions of others. The creation of such a regime presupposes the presence of conditions for communication, thinking, and reflection. Students (listeners) are not ready to share all their doubts. An atmosphere of sincerity and trust is necessary. It is created faster in a small group of 5-7 people than in the entire audience of 30-50 people.

If the design of the content corresponds to the purpose of productive activity, then its presentation involves the use of reference signals, schemes that encourage the emergence of new content, one's own thoughts – one's own product.

Thus, the correspondence of goals, content, methods in their relationship is the main requirement when designing the pedagogical process.

In the system of adult education, the prevailing position and conviction of teachers is that education for adults is their education. She argues something like this: *"why educate and develop them – they are already educated and developed."* And there is an element of truth here, since traditional pedagogical thinking understands education as teaching, suppression, which adults really do not tolerate. Regarding the process of

development, a persistent stereotype has also developed that it proceeds by itself and therefore remains outside the boundaries of pedagogical technologies.

Cultivation of goals from needs in the pedagogical process is its component – the educational process. Its content is not teaching, not repression, but the actualization of that dose of content, which is intended for assimilation. It will be the content (what does it contain?) of education. Cultivation of internal norms by appropriating new ones in the pedagogical process is its component – training. Not what is written in the program and what was expressed by the teacher, but what everyone made their own in different ways, appropriated, assimilated, and is the content of learning as an individual result of everyone.

So, the content of the pedagogical process has an internal structure consisting of elements: *the content of upbringing, the content of learning, the content of development in their relationship, which ensures the unity and integrity of the system components.* If we see the main pedagogical goal in creating conditions for the harmonization of consciousness, then our technologies are aimed at mastering self-regulation – bringing needs, norms, and abilities into line with each other. The ability to prevent internal conflict, collision, catastrophe is the main result of educational processes. Its achievement is possible by harmonizing (respectively) goals, content, methods in the pedagogical process.

So, the above information leads to the fact that important components of the pedagogical process are its content and the technology of transferring content to students. The content of education is determined by the content of education, which is implemented during the pedagogical process. The content of education is recorded in documents – the state standard, the curriculum of the relevant discipline, etc. The content of education embodies the social goals set before the professional education system for the training of qualified workers and specialists, therefore, the goal of a specific pedagogical system, and the goal determines the choice of means (forms, methods, methods of organization) its implementation. On the other hand, not only the content of education determines the course of the pedagogical process, but also, on the contrary, the regularities of this process influence the formation of the content. Two conclusions follow from this.

First, the content of education, which is reflected in educational documentation, should, if possible, take into account the real conditions of the pedagogical process. If these conditions, its regularities and principles are not taken into account when compiling programs and textbooks, educational materials may turn out to be very difficult for students, unrealistic according to the allocated study time, their logic will not correspond to the logic of the pedagogical process, its possibilities and conditions.

Secondly, the logic of the educational discipline, as it is presented in programs and textbooks, is not a dogma, but only a designation of the general order of presentation and study of educational material. The actual course of the pedagogical process depends not only on the logic of the discipline, but also on the conditions under which training takes place (composition and level of the group, equipment, environment, moral psychological climate in the group, etc.). Taking into account all these real conditions and factors, the teacher can and should make certain changes in the logic of the subject, even if it is perfect.

Thus, the pedagogical process is a holistic pedagogical phenomenon. All its components are closely interconnected. The goals of education are embodied in the content of education, which determines the forms and methods of education.

The effectiveness of the entire pedagogical process depends significantly, and sometimes completely, on the availability, quality and condition of teaching aids. The general goal of a higher professional school – versatile, harmonious development of the personality – presupposes the unity of its education, upbringing, general and professional development.

Based on this goal, the pedagogical process is designed to carry out three main interrelated functions – educational, educational and developmental. The educational function of the pedagogical process consists in the formation of students' system of scientific, technical, technological and industrial knowledge: facts, laws, regularities, theories, phenomena, processes; in the formation of the ability to apply the acquired knowledge and skills to perform educational and production tasks; in the formation of students' general scientific, polytechnic and special professional skills; in consolidation, improvement, expansion and deepening of acquired knowledge, skills and abilities. Implementation of the educational function is the basis of the pedagogical process. It mainly determines the success of other functions of the pedagogical process.

The educational function of the pedagogical process is manifested in the fact that learning constantly and regardless of how the teacher considers this issue, educates students. This is an objective regularity of the pedagogical process; in terms of education, learning cannot be neutral. The main task of a teacher, master, educator is to make maximum use of the educational opportunities of the pedagogical process for the formation of the best personal qualities in students [33, 32].

In the course of the pedagogical process, students develop the foundations of a scientific outlook, professional beliefs; respect for work, for working people, high ethical qualities are cultivated. These functions of the pedagogical process also include education of collectivism, friendship, readiness for social communication; education of labor discipline, conscientiousness, responsibility, initiative; formation of norms and rules of civil behavior.

Implementation of the educational function of the pedagogical process is not about the cognitive process "add" educational moments. The educational influence of the pedagogical process consists, first of all, in its orientation, in revealing to students the connections of professional knowledge and skills with life and practice. Education in the pedagogical process is ensured, first of all, by the influence of the personality of the teacher on the student, as well as the professional and pedagogical skill of the teacher, the master of industrial training, the selection of significant educational material; high scientific level of teaching, teaching methods that develop students' activity, stimulate their independence in mental and physical work; organization of study and work based on the principles of collectivism, taking into account the personal qualities of each student.

The developmental function of the pedagogical learning process is manifested in the formation of students' rational methods of thinking: analysis, synthesis, comparison, generalization, etc., in the development of cognitive and creative activity and independence, cognitive interests and abilities, will, perseverance in achieving the goal, skills and habits for self-education, self-improvement, creative thinking; in the development of attention, memory, speech, imagination; in the formation of the culture of educational, pedagogical and industrial work.

Formation of knowledge, skills and abilities provided by the curriculum of the relevant discipline, can and should be accompanied by the same

formation of intellectual cognitive actions and techniques that make up the content of mental development. Such a construction of the pedagogical process, when in the course of assimilation and use of knowledge and skills, students' cognitive and creative abilities are systematically and purposefully developed, the independence of their thinking and activity is called developmental learning; it is increasingly used in the practice of teaching special and general technical disciplines, in industrial training, in extracurricular educational work.

All these main functions of the pedagogical process are closely interconnected and interdependent. Formation of worldview, the development of cognitive and creative powers and creative abilities is possible only on the basis of assimilation of knowledge and skills and in close connection with them. At the same time, the higher the level of upbringing, the more effective the training, the higher the quality of training.

For a clear understanding of the essence of the pedagogical process, it is important to have an idea of its driving forces.

It is possible to determine the driving forces of the pedagogical process only from the standpoint of the dialectical doctrine of development. The source of knowledge and development is the unity and struggle of opposites.

The development of activity and cognitive abilities of students occurs in the process of finding answers to questions that arise in them, attempts to complete tasks, which are applied during the pedagogical process.

The contradiction of its organizational forms is also characteristic of the pedagogical process. The essence of this contradiction is that the pedagogical process is carried out, as a rule, frontally, and each student acquires knowledge and skills individually.

This makes it necessary to improve ways of individualizing the pedagogical process.

The pedagogical process is characterized by a certain logic, which provides optimally effective results in the assimilation of knowledge, the formation of skills, and the development of cognitive and other abilities of students.

The logic of the pedagogical process reveals its objective structure and includes a number of specific links, each of which has specific functions that reflect the activities of both students and the teacher.

Regarding student activity, i.e. learning, the logic of the pedagogical process reflects the process of educational cognition: initial familiarization with the material and its perception, special work on its consolidation and, ultimately, mastery of the material in the understanding of the possibility of operating it in various conditions, applying it in practice. The last link also involves self-control of students in the process of assimilating knowledge and forming skills.

Regarding the activity of the teacher, his functions in the pedagogical process are as follows:

– goal setting, motivation and stimulation of students' cognitive activity;

– notification of educational material to students;

– management of their cognitive activity during independent assimilation of knowledge;

– management of consolidation and improvement of students' knowledge;

– management of students' activities in the application of knowledge in practice, formation of skills and abilities;

– analysis of student achievements, verification and assessment of their knowledge, skills and abilities.

The considered structure and general regularities of the pedagogical process are typical for professional educational institutions.

However, the pedagogical process in them is affected in a certain way by the specific (compared to a comprehensive school) features of professional education: the pedagogical process takes place in the conditions of a certain orientation of students to obtain a specific profession, specialty. This affects the motives of learning, determines, as a rule, increased interest of students in studying special disciplines and industrial training.

The essence of the post-industrial information society has become significant changes in all spheres of human life. The spread of innovative technologies in the field of education has become an objective pattern determined by the new philosophy of education. Innovations should be considered as effective and effective innovations in the content, methods, means and forms of education and personal training, in the management of the education system, in the organization of the educational process, in the structure of educational institutions. Innovations became especially relevant with the beginning of a large-scale war unleashed by the Russian Federation on the territory of Ukraine, when it became vital to make quick, non-standard, essentially innovative decisions.

The functioning of the education system in the conditions of martial law is characterized by an intensive search for new approaches to learning, innovative forms of organization of the educational process, effective pedagogical and information technologies. That is why supporting the active implementation of innovations in the education sector during the war became one of the key areas of work of the Ministry of Education and Science of Ukraine and its divisions.

6. Conclusions

Designing the content of the pedagogical process is a selection of educational content from scientific knowledge and layers of traditional culture accumulated by mankind for a certain period of time, which meets the goals of education and upbringing of today's generation for this and the future period of human activity.

The pedagogical process as a whole system includes *education, training, student development*, which are based on the democratic principles of binary (interaction).

The personally-oriented content of education means all types of content of education – both external and internal, the composition and structure of which are determined by ensuring or reflecting the development of the student's personality in the "culture-person-education" system.

The student's search and acquisition of cultural and educational meanings involves:

– the student's personal creativity in relation to the fundamental objects of the surrounding world;

– self-awareness of the student's own experience, knowledge and value relations, which emerged in the process of learning fundamental objects and general cultural knowledge about them;

– manifestation of the position and corresponding activity in relation to the fundamental achievements of humanity, associated with these objects.

Successful implementation of what has been taught is possible with such an organization of the presentation of educational material, when the teacher strives not only for its informational capacity, but also for emotional aesthetic expressiveness.

Appeal to culture has always been characteristic of pedagogy, but each time was marked by its own characteristic only for him aspect and point of view on the unity of culture and pedagogy.

In the context of the integration of Ukraine into the European educational space, the modern pedagogical process is a process in which man and culture, in search of mutual compatibility, turn to the humanities, pedagogical knowledge, psychology, religion, etc.

And most importantly, one of the key aspects of wartime education is ensuring the safety of students and teachers. During war, universities are often targeted for attacks, resulting in loss of life and destruction of equipment. It is necessary to ensure the safety of universities in order to protect the lives of our youth and teachers, to ensure the continuity of the educational process. After all, youth is the future of our country.

University autonomy is becoming important in the restoration of higher education in Ukraine. After all, the expansion of autonomy will enable the university to capitalize on its own academic and scientific achievements, increase the differentiation of its educational offers, and develop its own academic communities. Therefore, this direction can be considered one of the priorities on the way to reconstruction and – development of higher education.

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