

Information and technological support of the educational process as a basis for the development of professional competencies among future teachers

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Abstract: *The article discloses the educational, developmental and educational functions of a didactic complex of information support. The technological approach in education involves a clear statement of learning goals and methods of their guaranteed achievement, and the competence-based approach as an output result implies a certain level of formation of professional competencies. Main aspects and features of the practical implementation of the indicated stages design of information technology of education in the formation of professional competencies among university graduates. The essence of information technology of education has been disclosed. Analyzed scientific and scientific-methodical literature on the problem of higher professional education, made it possible to highlight certain directions in the interpretation of the essence of the concept of "information technology of education".*

Keywords: *professional competence, information technology strategy, methodology, resource, software and didactic tools*

The development of professional competencies in future university graduates requires taking into account both the technical capabilities of the university and the pedagogical aspects of building the learning process. At present, it is difficult to imagine the construction of the educational process without the use of modern information and telecommunication technologies, be it the development and use of information teaching aids or the organization of interaction between the teacher and the student. The indicated tendency is inextricably linked with the general process of informatization, affecting all aspects of the life of modern society, the development of which is based on information processes based on information and telecommunication technologies. The development and widespread implementation of information and telecommunication technologies in various spheres of human activity gave impetus to the emergence and rapid development of the global informatization process, which also affected the education system, of which military universities are an integral part.

In turn, the modernization of the Armed Forces and special agencies is closely interconnected and largely depends on the state of the educational and informational spheres of society. At the same time, the strategic goals, stages and ways of development of higher education, including, are consonant with and largely coincide with the main directions of

informatization of society as a whole.

So the education system is designed to provide:

- development of information technologies in education, development of programs that implement distance learning;
- training of highly qualified and highly educated professionals capable of personal growth and professional mobility in the context of the rapid development of the information society and the introduction of innovative science-intensive technologies.

At the same time, among the main tasks of the state in the field of education, the tasks of ensuring access for all participants in the educational process of each university to scientific and educational literature, information and didactic programs, technologies, networks and databases are separately distinguished.

At the same time, the main strategic goal of informatization of higher education is the general rationalization of intellectual activity through the use of new information technologies, a total increase in the efficiency and quality of training specialists with a type of thinking that meets the requirements of a modern information society.

The analysis of scientific literature and pedagogical practice showed that the concept of informatization of education is understood in different ways by modern pedagogical researchers. For example, P.I. Pidkasisty gives the following definition: the informatization of education is a set of measures to transform pedagogical processes based on the introduction of information products, tools, technologies into education and upbringing.

In the "Explanatory Dictionary of Terms of the Conceptual Apparatus of Education Informatization" the informatization of education is understood as a purposefully organized process of providing the education sector with the theory, technology and practice of creating and making optimal use of scientific and pedagogical, educational, methodological, software and technological developments focused on the implementation of the didactic possibilities of information and communication technologies used in a comfortable and health-saving environment.

In the "Pedagogical Encyclopedic Dictionary" informatization of education is understood as the process of providing the education sector with methodology and practice for the development and optimal use of modern information technologies focused on the implementation of the psychological and pedagogical goals of training and education.

At the same time, common to the above concepts is that the process of informatization in the educational sphere contributes to:

- improving management in the education system through the use of various automated databases containing scientific and educational information, information resources and data transmission networks;
- improving the strategy and methodology of sampling the content, methods and organizational forms of training and education, the goals of individual development of students in the modern conditions of the information society;
- creation and development of methodological training systems, increasing the intellectual potential of students, the formation of the ability to independently acquire knowledge, carry out experimental research of various kinds;
- development and use of computer tests, diagnostic procedures for monitoring and assessing the level of knowledge of students.

Considering military universities as part of the country's educational system, it should be noted that a qualitative change in the state of the information environment of an educational institution is one of the mandatory components for the progressive and comprehensive development of the personality of each student. Based on a systematic approach, it is necessary to consider the process of informatization in military universities as a process influencing the pedagogical system with its inherent properties, characteristics and patterns. The system is studied as a single organism, taking into account the internal connections between individual elements and external connections with other systems and objects.

In particular, it must be said that an important feature of higher military educational institutions, from the point of view of informatization of education, is their "informational closeness" due to the specifics of the disciplines taught.

Summarizing what has been said, the following can be singled out as private goals of informatization of higher education:

- integration of the educational system of military universities into the scientific, social, social and cultural educational infrastructure of the country, and, if possible, the world community;

- preparing future graduates of the university for the full and effective implementation of their professional activities.

However, given the undoubtedly high rate of growth in the level of informatization of education, there are a number of reasons that do not allow this process to develop in full:

- the absence in military universities, due to their "informational secrecy", a unified methodology for the design and application in practice of information tools and learning technologies;

- often insufficient funding of military universities, which does not allow to fully implement the comprehensive provision of the educational process with information teaching aids;

- discrepancy between the level of development and implementation of learning technologies based on information learning tools, and the pace of development of modern information and telecommunication technologies, as well as the corresponding software;

- the lack of a unified practice for the integrated use of information learning tools in line with the comprehensive support of the educational process, in the study of various academic disciplines involved in the formation of specific professional competencies of a university graduate;

- insufficient level of integration of military universities into a common interuniversity information space during the development and application of software and hardware teaching aids and appropriate methodological support;

- not always a sufficient level of preparedness of the teaching staff of military universities for the timely introduction and everyday use of modern means of informatization of the educational process.

The above reasons determine the gap between the necessary and real-existing capabilities of the informatization process in military universities. Also, the transition to the standards of higher professional education of a new generation predetermined the inexpediency of introducing modern information tools and appropriate teaching technologies

when using traditional teaching models based on the formal knowledge paradigm.

Realizing the need to eliminate the above-mentioned shortcomings and the need to link the process of developing new educational models of learning, with the introduction of appropriate information and technological support of the educational process, it is possible to formulate tasks arising from the requirement of informatization of higher education:

1. Formation of professional competencies in future graduates of the university, necessary for the implementation of future professional activities, as well as personal qualities that ensure the successful performance of service and combat tasks. Professional competencies and personality traits of a future specialist, formed at the required level, should ensure his comfortable functioning in the conditions of a rapidly developing information society, in which information is a decisive factor in the implementation of highly effective labor activity.
2. Improvement of training technologies for military specialists in order to increase the level of their training, broad (within the framework of all studied academic disciplines) introduction of information and telecommunication means and appropriate software into the educational process. In other words, the creation of a specific information technology educational environment at the university, which contributes to the constant development of dense information interaction between students and the teaching staff and is designed on the basis of modern models and technologies of teaching. Obviously, the solution of these tasks must be carried out simultaneously and systematically, because each of them is of great importance and both of them are mutually derivative, since the proposed ways to improve the educational process are based on the use of modern information and educational technologies. Thus, based on the listed prerequisites, we will consider various aspects of the comprehensive support of the educational process, which serves as the basis for the formation of professional competencies in future military specialists.

The analysis of literary sources showed that the greatest contribution to the study of the problem of development and implementation of a comprehensive support of the educational process was made by V.P. Bepalko, A.A. Verbitsky, M.V. Klarin, P.I. Obraztsov, I.V. Robert, V. A. Slastenin, A. I. Uman, M. Yu. Shvetsov.

However, at the moment, a unified point of view accepted by all scientists on this problem has not been developed. Analyzing the scientific, methodological and educational literature, one may come across the rationale for the use of the following types of support for the educational process: methodical, informational, software, didactic, personnel, documentation, material and technical, etc.

In general, the provision of the educational process can be viewed as a process and as a result. If we talk about the provision of the educational process as a procedure, then the provision is transformed into planning, development, creation of an optimal system necessary for the effective implementation of the didactic process. Providing the educational process as a result implies a set of documents, educational and methodological resources, etc., which are a systematic description of the educational process for its subsequent implementation in practice. Let us briefly describe the types of collateral presented.

Methodological support is understood as a set of necessary documents that describe learning technologies for the formation of the required level of professional competencies, criteria for the formation of professional competencies, as well as methods for the design and implementation of the educational process in the information and educational environment.

Information support of the educational process implies the provision of full, permanent and sustainable access for all students to the information they need related to the implementation of Basic educational programs, planning of activities, organization of the educational process and the conditions for its implementation.

The software of the educational process is understood as either a database of software and methodological support in the areas of activity of the university, or a set of software necessary for the implementation of the educational process in various academic disciplines using the appropriate information and educational technologies.

The didactic support of the educational process implies the implementation of the organization of the provision of relevant educational and methodological resources, the creation of a base of such resources of the required volume, its periodic examination and updating.

In addition, the term methodological support of the educational process is often used not in its “pure form”, but speak about: educational methodological, programmatic methodological, systemic methodological, scientific methodological, normative methodological, etc. providing. Having carried out a semantic and morphological analysis of these linguistic units and taking into account the need for informatization of the educational process, it can be concluded that the listed types of support, with the exception of personnel, documentation and material and technical, are similar in nature and have a common feature, as which is the information and methodological support of the educational process, by which we mean the provision of the educational process with the necessary scientific and pedagogical, educational and methodological, information and reference, instructive and organizational, normative and methodological, technical and other materials that are used in the educational process of a specific educational institution.

The given main characteristics of the considered types of educational process support indicate that in most cases their content is revealed through a set of applied methods, means and forms of teaching, which allow the teacher to carry out the educational process at the proper level, constantly improving its quality and effectiveness.

Basic educational programs also set requirements for educational and methodological complexes of academic disciplines, and a requirement for the use of innovative methods in the educational process is also introduced there. In addition, the above documents deal with the development of a teaching system that corresponds to certain didactic goals, including a set of interrelated components, such as the content of education and the corresponding goals, methods, forms and means of teaching.

It is obvious that in the conditions of the rapid process of informatization of higher professional education, the use of modern information and telecommunication means in the educational process, taking into account the requirements of the governing documents in the field of education, the considered types of support for the educational process do not allow to fully reveal and reflect the specifics and features of the educational process.

Thus, it is necessary to develop separate provisions in the approach to teaching, which has one of the components of information and technological support of the educational process, which, in turn, serves as the basis for the formation of professional competencies of future university graduates. This concept was introduced into the pedagogical theory of P.I. Exemplary and in general, it includes two components: informational, realizing the content

aspect of training, and technological, allowing to implement the procedural aspect of training a future specialist [57].

Combining historical analogies in the development and development of various types of educational process support in higher professional education, one can observe that their formation is inextricably linked with the implementation of the improvement of various components of the methodological system of education. This pattern is more clearly traced with the emergence of various innovative teaching methods and the introduction of fundamentally new didactic tools: educational and methodological complexes - teaching materials and software and methodological complexes - PMC.

The emergence of the concept of ITUP and the introduction of its methodology based on combining the procedural and content aspects of the educational process is also inextricably linked with the large-scale use of various didactic informatization tools in the educational process in conjunction with information technologies of teaching. Thus, the implementation of ITUP is based on the combination of information and pedagogical technologies. Let us analyze the essence and consider the components of the ITUPP in the process of forming professional competencies among future specialists of military universities.

The information component of ITUPM implements the content side of the educational process, which is designed to fully and adequately provide students and teaching staff with educational and various additional auxiliary information necessary to achieve the set didactic, educational and developmental goals and ensure a guaranteed result in the form of the required level of professional development. competencies. Previously, the implementation of this function was ensured by individual pedagogical software products, but they were not applied systematically and solved individual problems within the framework of the implementation of a certain teaching methodology, or a teaching methodology was developed for a set of certain software products. In the course of implementation, this approach revealed a number of disadvantages, which are as follows:

1. Separate software and didactic tools are not intended for integration into a single didactic system that allows solving the problem of forming professional competencies in specialists of a particular profile.
2. Often pedagogical software products are developed in a different information environment using different software and hardware. This factor does not allow them to be combined into a single information technology environment.
3. Software pedagogical tools are often focused on purely computer teaching methods and do not allow solving the whole range of didactic problems within the curriculum of the discipline.

Based on the analysis of pedagogical literature and the practice of introducing informatization means into the educational process, we believe that it is possible to eliminate the above-mentioned shortcomings by introducing didactic information support complexes (DKIO) and corresponding teaching technologies into the educational process, which implement the information and procedural components of ITUP, respectively.

We also believe that the most appropriate pedagogical basis for the development of DKIO and the design of teaching technology for future graduates of military universities in

the study of special disciplines may be a combination of several approaches:

- systemic (S.I. Arkhangelsky, V.P. Bespalko, B.P. Bitinas, A.A. Bogdanov, B.Z.Vulfov, M.A. Danilov, V.I. Zagvyazinsky, T.A. Ilyina, T. V. Ilyasova, F. F. Korolev, N. V. Kuzmina, V. V. Kraevsky, V. P. Mizintsev, L. I. Novikova, G. Saimon, R.S. Shaduri, and others.), which involves the consideration of the pedagogical system as an interconnected set of certain methods and processes that make it possible to organize a purposeful learning process;

- competence (V.I.Baidenko, G.E.Belitskaya, A.A. Verbitsky, N.A. Grishanova, I.A.Zimnyaya, V.V. Zuev, V.V. Ishchenko, A.S. Kazurova, G.B.Kornetov, B.K. Kolomiets, N.V. Kuzmina, A.D. Lashchuk, A.V. Makarov, L.K. Makarova, A.N. Novikov, L.G. Semushina, N A. Selezneva, Y. G. Tatur, V. D. Shadrikov, P. Bimmel, J. Raven, K. Kleppin, G. Neuner, etc.), according to which learning outcomes, which are understood as sets of competencies, are presented as education quality standards;

- personality-oriented (V.V.Davydov, I.A.Zimnyaya, A.I. Leontiev, V.V.Serikov, V.D.Shadrikov, I.S. Yakimanskaya, and others), implying the recognition of the student as an active a subject participating in the educational process, taking into account all his individual characteristics;

- contextual (A.A. Verbitsky, B. Bloom, V.S. Lednev, V.A. Slastenin, A.I. Uman, etc.), based on the fact that the learning process is maximally focused on future professional activities;

- technological (L. Anderson, V. P. Bespalko, J. Blok, V. N. Bogolyubov, A. A. Verbitsky, T. Gilbert, N. Grolund, M. V. Klarin, N. V. Kuzmina, F. Coombs, M. M. Levina, P. I. Obraztsov, L. G. Semushina, M. P. Sibirskaya, V. A. Slastenin, S. A. Smirnov, Yu. G. Tatur, O. N. Filatov, D.V. Chernilevsky, M.A. Choshanov, etc.), which involves the design of the structure of the educational process, based on the assumption of guaranteed achievement of the set didactic goals, based on certain initial settings.

Next, we will consider the structure of the main components that determine the basis of the ITEM. The didactic complex of information support for the academic discipline is a system that integrates applied software pedagogical products, databases and knowledge in the studied subject area, as well as a set of didactic tools and teaching materials that comprehensively provide and support the teaching technology implemented by the teacher [40].

In terms of its structure and functional purpose, the DKIO is similar to the educational and methodological complex (TMC), which should include a complete list of necessary information to support the academic discipline. The content of the teaching materials is governed by the requirements laid down in the main educational program of the discipline and other regulatory documents of the university, which determine its minimum (or strictly defined) composition. Typically, the structure of the teaching materials of a discipline includes the following components:

1. Working curriculum of the discipline.
2. Thematic plan for studying the discipline.
3. Methodical recommendations (recommendations for the teacher and students for the organization of independent work).
4. Materials establishing the content and procedure for conducting intermediate and final

attestations.

The constituent parts of the teaching materials are separate documents or materials intended for the methodological support of the discipline.

The main differences between the DKIO of the academic discipline and the teaching materials determine its typical structure, which makes it possible to realize the optimal interaction between the teacher - the academic discipline - the student.

Based on the systematic approach in pedagogy, we will define the principles of constructing the DKIO of the academic discipline:

- Compliance with FSES HPE and other regulatory documents;
- modularity of construction;
- completeness and availability of the included materials;
- complexity and optimality (in terms of the content and placement of didactic units);
- compliance with modern scientific achievements in the field of the studied discipline.

The teacher's module acts as a backbone, which includes all the main components and allows the teacher, through the information component of the learning process, to implement an integral technology of organizing the educational process with guaranteed achievement of the set learning goals. The components that are necessary only for the teacher and that carry unnecessary unnecessary information load for the students are excluded from the module of students. The network module assumes the placement of the DKIO in the local computer network of the educational institution.

It should be noted that the developed DKIO should be part of a full-fledged pedagogical system and have the following properties:

1. *Integrity implies the use of DKIO as a complex of software and didactic tools integrated for the purpose of collecting, processing, presenting and transmitting educational and other types of information.*
2. *Emergence, consisting in the presence of the necessary new properties and qualities in DKIO that are not inherent in the elements of the complex separately.*
3. *Structurality, which determines the ordered set and arrangement of DKIO elements, as well as the order of their connections and interactions.*
4. *Functionality, implying the manifestation of educational functions when interacting with the external environment (teacher - student).*
5. *Organization, which consists in the ability of DKIO to withstand the processes of unreasonable increase in complexity or disordering when adding or changing its individual components.*

Conducting a comparative analysis between the teaching materials adopted in various universities and the developed DKIO, a number of features of the latter can be distinguished:

- universality, assuming the presence of a common platform for building the adopted structure of the DKIO;
- variability, allowing on the developed basic software platform to build a DKIO for any special discipline that is part of the OOP structure;
- mobility, allowing you to make changes to the developed DKIO if necessary;
- structural interconnectedness, uniting all the elements of the DKIO into a single information and technological basis, developed in order to carry out professional training of

students and implement the adopted information technology of education;

- functional unity, which implies the integration of software and didactic tools in order to collect, organize, process and provide various types of necessary information for the implementation of optimal interaction between the student and the teaching staff;

- modularity of construction, realizing ease of access to the necessary information resources;

- the possibility of using DKIO in various distributed local computer networks of an educational institution, recording on various electronic digital media and information storage devices for ease of use by students and teachers at the required time.

The following basic elements are included in the DKIO as basic: information and reference system and a base of interdisciplinary communications, methodological materials for conducting classes, regulatory documents, an electronic library of the discipline, a control and evaluation unit, audio-video materials on the discipline, course project of the discipline, computerized laboratory practice, a collection of works by teachers and students, user manual.

All of the above structural elements of the DKIO are united by a common software and information shell, which is a set of tools with which programming and graphic design of the DKIO is performed.

The analysis performed allows us to conclude that the use of DKIO makes it possible to realize the following educational, developmental and educational functions:

- information and training (consists in the systematization, deepening of knowledge, as well as the formation and improvement of the skills and abilities of students in the field of the studied discipline);

- communicative (consists in the implementation of a virtual dialogue between all participants in the educational process);

- control (implements a set of measures to control the formed professional competencies, as well as targeted correction of the individual cognitive process of each student);

- Motivational (provides stimulation of students' needs for self-development, including in the service and professional sphere);

- educational (aimed at fostering independence and responsibility in the study of the discipline).

Thus, the didactic complex of information support, being a full-fledged didactic system, allows you to implement all its necessary functions, but not in isolation, but relying on the accepted information technology of teaching.

The second integral component of the ITUP is its technological component, which makes it possible to implement the procedural aspect of the training of future university graduates. The design and implementation of information technology of education is necessary for the implementation of the process of formation of professional competencies of university students with guaranteed quality, allowing them to be fully ready to carry out future professional activities and actively realize their creative potential and acquired knowledge, abilities and skills.

Information technology of teaching within the framework of ITUP performs the function of a connecting element that generates and unites around itself the necessary

information environment, contributing to a comfortable pedagogical interaction between students and faculty. Based on the foregoing, let us consider the role and place of information and pedagogical technologies in the structure of the educational process.

The technological approach in education presupposes a clear statement of learning goals and methods of their guaranteed achievement, and the competence-based approach as an output result implies a certain level of formation of professional competencies that should be included in the educational process with the help of:

- educational technologies;
- the content of education laid down in the Basic Educational Programs (MEP);
- features and specifics of the university;
- accepted forms of interaction "teacher - student", "student as part of a study group."

Analysis of pedagogical literature shows that the following features of teaching technology can be distinguished:

1. The presence of an organized process of two-way interaction between the teacher and students. At the same time, the teacher of the university, due to the prevailing administrative-official interaction, should pay special attention to building partnerships with cadets, allowing them to build this process within the framework of trusting and mutually beneficial relationships.
2. Providing students with conditions and opportunities for the development and implementation of their personal potential, necessary for the implementation of future professional activities.
3. The presence of an ordered set of didactic methods, methods and means, united in a strict logical sequence, determined in the process of designing and organizing the educational process.

In addition to the guaranteed achievement of learning goals, researchers include as the main components of information technology of education: a set of forms, methods and means of teaching, as well as a system of value-based, different-quality procedures (didactic, educational, psychological, etc.), which are determined by the corresponding goals and content of education.

Scientists, speaking about information technology of education, emphasize that it should contain a set of methodically secured organizational actions that determine the optimization of the educational process using various means of informatization.

Combining the above features of information technologies of teaching, we can conclude that the purpose of teaching technology is common to most researchers, which determines the optimal construction and implementation of the educational process, taking into account the guaranteed achievement of the set learning goals.

Thus, having defined this statement as fundamental and, relying on the ideas set forth in the works of research scientists, we will single out the following sequence of stages in the design and implementation of information technology of education for future graduates of military universities:

- definition and formulation of general training goals and their maximum approximation to the content of the training of a future specialist in accordance with the Federal State Educational Standard of Higher Professional Education;
- setting private didactic goals, formulated taking into account the planned

achievement of the results of military professional training;

- determination of the methods, forms and means of teaching that are optimal from the point of view of organizing and conducting the educational process;
- implementation of control at various stages of training with the implementation of correction, if necessary.

Based on the ideas of P.I. Obratsov, A.I. Uman, A.I. Kozachka and others, we consider it possible to reveal the essence of information technology of education, which consists in the following:

- the teacher must first design the educational process for its subsequent implementation in teaching practice;
- goal-setting should be specially organized and provide for the possibility of objective control of the level of achievement of didactic, developmental and educational goals;
- information technology of teaching should be integral and indivisible in terms of structural and content, that is, a change in one of the stages of the educational process entails a change in the technology of teaching as a whole;
- organizing the educational process, the teacher must make the choice of methods, forms and means of teaching in accordance with certain regular relationships of the components that make up the teaching technology;
- at all stages of training, the teacher must monitor and, if necessary, adjust the educational process.

It should be noted that many researchers distinguish between the concepts of "teaching technology" and "information technology of teaching". These definitions are united by a number of synonymous concepts that appear in the educational environment with the introduction of new information technologies: "computer learning technologies", "computer pedagogical technologies", "computer design and testing technologies", etc. Moreover, the concept of "information technology of education" did not arise spontaneously, but was due to the emergence and use of new software and hardware in the educational process and the differentiation of information educational technologies into a number of components: technical (hardware used), software (software used), subject (specific subject area studied) and methodological (regulatory guidelines, instructions, etc.).

The analysis of scientific and scientific-methodical literature concerning the problem of higher professional education made it possible to single out certain directions in the interpretation of the essence of the concept of "information technology of education".

Some researchers consider information technologies of teaching as a didactic process that can be organized with the help of a system of innovative methods and teaching aids introduced into the structure of the educational process, aimed at the development, storage and display of various software and information products in accordance with the principles, laws and regularities of the organization of pedagogical process.

Other researchers talk about the development and implementation of an appropriate technical learning environment based on educational information technology.

Thus, the first direction defines the use of information technology as a learning process, and the second shows the use of information technology in teaching with the use of various pedagogical software and hardware.

Agreeing with the opinion of A.V. Starodubtsev, P.I. Obraztsov, A.I. Uman that the second designated approach is currently dominant, we will not fundamentally distinguish between the concepts of "learning technology" and "information technology of learning" within the framework of of this dissertation work, and as the main feature of this concept, we define the guaranteed achievement of the set goals and the receipt of a guaranteed result.

The predominance of the second approach to the definition of information technology of education can be explained from the point of view of the rapid development of informatization means, as well as by the fact that the development, development and implementation of these means in the educational process were carried out mainly in educational institutions (departments) focused on technical sciences. This is due to the specifics of the subject area of technical universities and departments and the corresponding qualifications of their teaching staff.

However, it should be noted that for technical military universities the indicated problem of lagging behind with the introduction of modern information technologies of teaching into the educational process also takes place and plays an important role in the process of forming professional competencies in future graduates. This problem is caused by the specifics of the special disciplines studied by the cadets, containing material constituting a state secret, and the inability to use in the classroom for these disciplines not specially tested technical means and the corresponding software.

An important fact is that, considering learning technologies exclusively from the point of view of introducing information technologies into the educational process, the framework for understanding the essence of informatization of education is significantly narrowed. That is, in the second indicated approach, from our point of view, we are talking only about some automation of the educational process with the transfer of information resources to electronic media and increasing the perception of the material due to the visualization of educational information.

We believe that information technology of teaching performs the functions discussed above in full only if the cadet in the learning process has the opportunity to use an integral system of modern technologies and technical means, the choice of which is carried out taking into account the set didactic goals, and also if this information technology corresponds to generally accepted characteristics traditional teaching technology (preliminary development and systematic implementation, creative goal-setting process, system integrity, etc.), used within the same or similar academic disciplines.

Thus, under the information technology of training, implemented by a teacher, within the framework of the formation of professional competencies in future military specialists, we will understand a specially designed and organized didactic process at a university with the use of modern information technology tools that allow organizing a comfortable and optimal, in terms of perception and assimilation educational material, between the teacher and the students with the aim of guaranteed achievement of the set goals and obtaining a guaranteed result in the form of a given level of formation of professional competencies.

At the same time, a military teacher, designing a certain teaching technology within the framework of an academic discipline, must, relying on certain scientific ideas, clearly set the target vector, develop an organizational form of interaction with students filled with a certain content, plan the output result, criteria and indicators for its assessment.

Thus, the change in the goals and content of education in military universities within the framework of the introduction of a new generation is decisive in the educational process, and the "technologization" of the learning process, the use of innovative methods and organizational forms are its derivatives, aimed at achieving the set didactic, developmental and educational goals.

This process leads to a change in the subject content of academic disciplines at different levels of education, which, in turn, requires the development of fundamentally new models for the formation of professional competencies in future military specialists. It seems that in the conditions of military professional training of future specialists, this can be realized most successfully through the development and implementation of information technology environments when studying special disciplines at a university.

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