

## **METHODOLOGY OF SYSTEMATIC APPROACH TO GUARANTEE THE QUALITY OF TRAINING FOR OFFICERS IN MILITARY UNIVERSITIES**

*The methodology of systematic approach of guaranteeing the quality of training for military specialists in higher military educational institutions is disclosed in the article. It was determined that the process of education and upbringing takes place under conditions of change of pedagogical goals in any pedagogical system. This process is accompanied by the emergence of new tasks in the field of education and education as society develops. There is a constant updating of scientific information, in the conditions of improvement of existing ones and creation of new methods of teaching and upbringing. There is a constant update of the student and teacher contingent throughout the learning and upbringing process.*

*The systematic approach as a methodological basis for the development of quality assurance systems for the training of military specialists in higher military educational institutions is revealed. It is found that the systematic approach does not exist in the form of a clear methodology with a defined logical concept. This system, formed from a set of logical techniques, methodological rules and principles of theoretical research, thus performs a heuristic function in the general system of scientific knowledge.*

*The functioning of the system is the process of professional training of future military specialists in higher military educational establishments. An important result of the functioning of the system is the high level of readiness of future military specialists for practical activity. This can be achieved by ordering the system based on certain principles. These principles include: the principle of objectivity, completeness, specific-historical (genetic) approach, systematic, contradictory pedagogical experience.*

**Keywords:** *military education, systematic approach, quality of education, quality assurance of education, military specialists, military universities.*

**Problem statement.** Today, one of the priority areas of research in the higher military education system of Ukraine is the quality of officer training. This is due primarily to the operation of the Joint Forces in the East of our country. The actual practice of warfare has raised certain requirements for the theory of military pedagogy to develop an appropriate concept of quality of education and innovative approaches to its implementation in the educational process of military educational units of universities. In this context, the problem of guaranteeing the quality of training of military specialists is an extremely

important problem - a problem that remains to be explored in pedagogical theory and practice.

**Analysis of recent research and publications.** Questions concerning the theory of systematic approach, systematicity are reflected in the writings of scientists: B. Ananyeva, P. Anokhin, B. Lomov, B. Merlin, K. Sudakov, D. Chernilevsky and others. The problem of methodology of systematic research is reflected in the works of I. Blauberg, V. Sadovsky, E. Yudin. R. Makarov, S. Sisoeva, explores the methodology in system education and system analysis.

General theoretical approaches to the quality of education and management aspects are covered in the researches of the following scholars: S. Nikolayenko, A. Subetto, S. Goncharenko, V. Kremen. On the quality of education as a degree of compliance with the educational standards and expectations of students - in the works of G. Kovaleva, S. Shishov, V. Kalney; on technological and monitoring aspects of quality assurance of education - in the works of V. Bespalko, O. Lokshina, N. Kuzmina, A. Mayorov, E. Khrykov, etc.

In foreign pedagogical theory and practice, the problem of the quality of education is often considered in conjunction with the problem of the use of innovative pedagogical technologies, as evidenced by studies of such scientists as M. Clark, F. Percival, G. Wellington, P. Mitchell, M. Wulman, S. Spaulding, S. Vedemeyer, R. Tomasta, etc.

**The purpose of the article** is to analyze the methodology of the systematic approach of guaranteeing the quality of education of military specialists in military universities.

**The main research material.** The development of the concept of the system has a long history. The first ideas about the system originated in ancient philosophy, which put forward an interpretation of the system as the orderliness and integrity of being. In ancient Greek philosophy and science (Euclid, Plato, Aristotle) considered the idea of systematic knowledge. The ideas of the systematic world were reflected in the writings of B. Spinoza and G. Leibniz in the XVII-XVIII centuries. I. Kant and G. Hegel developed the principles of the systematic nature of knowledge in the German classical philosophy. Later, the concept of the system began to be applied in mathematics, mechanics, etc. Gradually, it entered into various fields of science (first of all, social and humanities), in engineering, cybernetics and so on. Found the concept of the system and in pedagogical science: didactic system, system of education, system of education, system of labor training, system of teaching methods, system of tasks, etc.

In general, the system means an orderly set of qualitatively defined elements, between which there is a natural connection or interaction, and which is aimed at achieving a specific goal. This means that the concept of the system is based on three provisions:

- the system is formed by a set of elements that are interconnected;
- this set forms a single whole, the removal of one of the elements of the set will violate the property of integrity;
- a single whole formed by a set of elements has a specific purpose or purpose that is inherent in the whole set of elements and not for any combination of them.

An *element* of a system is a part of it that cannot be further divided to perform its functions. Thus, the elements of the "car" system, if we consider it as a set of units, will be the engine, gearbox, clutch system, rear axle and so on. Of course, each of these elements of the car can be disassembled into smaller components, but they will no longer provide the corresponding functions of each of these units. Therefore, it can be assumed that at certain stages of the study the elements of the system can be considered as structureless.

There are links between the elements of the system. They can be of two types: first and second order. *First-order connections* are necessary for the processes that take place on the system. *Second order connections* are called extra - they improve the functioning of the system.

Thus, the traffic system consists of the following elements: road, car, driver, road signs. Road - car, car - driver, driver - road links should be considered first-order links, because in the absence of at least one of them, the system functions. At the same time, the communication between the driver and the road signs is additional because it aims at streamlining the traffic, that is, to improve the functioning of the whole system.

Any system exists (functions) in the environment that surrounds it. In reality, there are no completely isolated or isolated systems. The environment always affects the internal state of the system. This influence is due to several factors.

The influence of environmental factors on the system is characterized by input (exogenous) quantities, and the elements of the system that are affected are called system inputs. In turn, the system can not be neutral to the external environment, its impact on the external environment is characterized by the value of the original (endogenous) values. For example, any production process can be considered as an economic system, the elements of which are people, technology, technology, information, etc. The input values of such a system are energy, raw materials, demand for products, etc., output values are finished products, various services.

The methodology of the systematic approach is based on the following basic principles:

1. The *principle of multifacetedness* is that any object is considered in several plans, aspects. For example, as a qualitative unit that has its own specific features, as part of its macrosystem and others.

2. The *principle of multidimensionality* is that any complex object is characterized by a large set of properties, which are grouped together (clusters), each of which describes one or another of its features.

3. The *principle of hierarchy* is that the study of complex objects should be based on an idea of the hierarchy of their structure, namely on the idea of arranging parts or elements of the whole in order from higher to lower. Not only the system composition models (systems - subsystems - elements) have a hierarchical structure, but also the quality properties of these systems and the criteria used to evaluate them.

4. The *principle of different order of properties* is that the hierarchy of the structure of the system and its properties gives rise to regularities of different order. Some patterns are inherent in all levels of the hierarchy, namely the entire system. Others belong to only a certain group of levels, others belong only to the elements of one level, and the fourth belong only to individual elements of one level.

5. The *principle of dynamism* is that a systematic approach requires consideration of the objects under study in their development at all stages of the life cycle.

Training of highly qualified military personnel in Ukraine is carried out in the general system of military education, which, in turn, is an integral part of the state education system. The national military education system includes: governing bodies, a network of military universities.

Ensuring the quality of officer training, taking into account the experience of NATO member countries, is a multi-faceted design education system and covers the following aspects:

- availability of scientific-pedagogical staff of the appropriate level of qualification, as well as financial, material, informational, educational-methodical and other resources;

- development of clear requirements for the cadet contingent and their practical implementation during the admission (competitive selection) for training;
- organization of the educational process, adequate to current trends in the development of national and world training of military personnel and the level of development of society and economy;
- determination of conditions and parameters of the cadets certification system;
- development and implementation of new educational technologies;
- control of the educational activity and the quality of training of military specialists at all stages of training and at all levels – military universities, the state and internationally.

The quality assurance system for the training of officers in the military is implemented at the institutional, national and European levels, and contains appropriate standards (Figure 1).

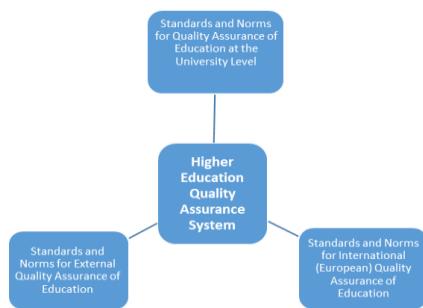


Figure 1. Components of the quality assurance system for officer training in high schools

Currently, the systematic approach is used in various fields of many sciences, in the practice of social management, in solving large and complex socio-economic problems, and others.

In the philosophical dictionary, the concept of "system" is interpreted as a set of elements that are in relations and relationships between themselves and form a certain integrity. That is, the system is always unitary, it is a single unit from which no element can be removed. The system is not only a real object, but also a cognitive tool, so a systematic approach is the way we see the object.

The need for such a method of research, which would open up opportunities to compare the relationship between the whole and the whole, to integrate into a common system of concepts of diversity of already known and newly obtained scientific facts and phenomena, to establish common patterns for different quality pedagogical phenomena, led to the emergence of a new scientific direction, called the "system approach".

The essence of the systematic approach is to find the scientific means that can express the integrity of the object under study. The central task of the study from the standpoint of a systematic approach is to identify and explore the various relationships inherent in the object. It should be noted that the systematic approach has the property of "self-propagation" in the pedagogical environment and implemented without administrative compulsion. The use of a systematic approach in pedagogical research allows to study the object holistically and to ensure a stable sequence of the research process.

All existing systems are subject to certain principles to which they apply [1]:

1. The principle of integrity - is that it is impossible to reduce the properties of the system to the sum of the properties of its constituent elements, and the properties of the latter do not follow the properties of the system. The properties and relationships of each element of the system depend on its place and functions in the system.

2. The principle of structural means that any system can be characterized on the basis of existing relationships and relationships between its elements, that is, on the basis of its structure. The behavior of a system is determined by the behavior of its individual elements and the properties of its structure.

3. The principle of interdependence of the system and the environment is that the system forms and manifests its properties in the process of its interaction with the environment in which the system functions and in the relationship with which the system reflects its integrity.

4. The principle of hierarchy is that any system can be an element of a higher order system, while its elements can be a lower order system.

5. The principle of multiplicity of a system description means that because of the fundamental complexity of each system, its adequate knowledge requires the construction of a large number of different models, each of which describes or reflects only a specific aspect of the system.

Training of highly qualified military personnel in Ukraine is carried out in the general system of military education, which, in turn, is an integral part of the state education system. The national system of military education includes governing bodies, a network of military universities.

In Ukraine, its own military education policy, which focused on providing a modern level of training for all military personnel, began to emerge immediately after independence. At that time, a rather powerful network of USSR military education institutions was located in the jurisdiction of Ukraine: 34 military educational establishments (2 academies, 30 higher and 2 secondary military colleges), 74 departments of military training of students of civilian higher educational establishments under the program reserve officers, 204 training centers.

Such a rather disparate network of military educational institutions, on the one hand, should have facilitated the creation of a new system of military education, and on the other, created significant problems regarding its transformation in accordance with the real needs and capabilities of the Armed Forces of Ukraine.

The concept of the military education system in the Armed Forces of Ukraine developed at that time in Ukraine became a program of activities of military education management bodies and military educational establishments. Its implementation was to ensure the continuous training of specialists for the Armed Forces of Ukraine in certain military specialties and to meet world standards.

The main result of the process of long-term (more than 20 years) reform of the military education system in Ukraine was the creation of a modern network of military educational institutions. That carry out educational activities on the basis of licenses in accordance with the adopted standards of education and provides for the issuance of certificates of higher education of state specimen subject to accreditation, specialties of preparation of graduates.

Military universities - a higher educational institution of state ownership. It provides at certain levels of higher education the training, retraining and advanced training of military specialists for further service in the positions of

officer (sergeant, sergeant) or command staff to meet the needs of the Armed Forces of Ukraine formed in accordance with the laws of Ukraine military formations, conducts scientific, scientific, technical, innovative and / or methodological activities [2].

The use of a systematic approach in pedagogical research allows to study the object holistically and to ensure a stable sequence of the research process. An educational institution is a large system of subsystems: goals and objectives of the educational process, pedagogical conditions, administrative staff, staff of teachers and students or students, as well as educational programs and technologies.

The components of the educational system, its main features and properties are: the presence of interconnected and interdependent components, which, while subordinate to a single entity, still have some independence, and hierarchy of the system (the system exists as part of a higher order system) [3]. For example, a university is both a social pedagogical system and a system-forming component of education.

In the European educational space, the quality assurance system for specialist training is based on standards and norms, the basic principles of guaranteeing the internal and external quality of higher education:

- the responsibility of universities for the quality of education and its guarantee;
- taking into account the public interest in quality assurance and in ensuring that higher education standards are met;
- improving and improving curricula in view of their entry into the European educational space;
- optimization of the structure of institutions that implement training programs and increase their effectiveness;
- transparency of external expertise in evaluating the quality of education;
- improvement of the system of quality assessment of higher education;
- improving the reporting system of the university and its transparency, including reporting on investment in public and private education;
- quality assurance in view of its compliance with performance conditions;
- the ability of higher education institutions to confirm the quality of education both domestically and abroad;

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• the use of quality assessment methods should not hinder the development of education and its innovation.

Communication with the external environment and functionality of the system implies the ability of the system to exist and maintain uniqueness under the influence of various factors [4]. Systems emerge and disappear, that is, dynamic.

The concept of "development" characterizes the improvement of the structure and function of the system under the influence, mainly, of internal factors, for example, an educational institution goes through certain stages of its development: it arises, functions, disappears, in other words, develops. Under the systemic approach in science is understood "the direction of methodology of scientific knowledge, which is based on the study of the object as a system: a holistic complex of interconnected elements."

The systematic approach, on the one hand, is to perceive the pedagogical phenomenon as a coherent pedagogical system, and on the other, to obtain as complete information as possible about the content and condition of each component, as well as its interaction with other components.

**Conclusions.** The system of guaranteeing the quality of training of military specialists in higher military educational establishments should ensure the training of military specialists with a high level of professionalism, competence, intellectual development, general and military-professional culture, capable of performing with high efficiency the tasks set for the defense of Ukraine, the development of their individual creative personality, independent learning of new knowledge during military service, making optimal decisions in non-standard conditions seven specialties and specializations that determine the level of combat capability and combat readiness of the Armed Forces of Ukraine.

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## МЕТОДОЛОГІЯ СИСТЕМНОГО ПІДХОДУ ГАРАНТУВАННЯ ЯКОСТІ ПІДГОТОВКИ ВІЙСЬКОВИХ ФАХІВЦІВ У ВІЩИХ ВІЙСЬКОВИХ НАВЧАЛЬНИХ ЗАКЛАДАХ

У статті розкрито методологію системного підходу гарантування якості підготовки військових фахівців у вищих військових навчальних закладах (військово-навчальних підрозділах закладів вищої освіти). Встановлено, що у будь-якій педагогічній системі процес навчання і виховання протікає в умовах видозміни педагогічних цілей і виникнення нових завдань у галузі навчання і виховання в міру розвитку суспільства, постійного оновлення наукової, науково-технічної інформації, в умовах удосконалення вже існуючих та створення нових методів навчання і виховання, а також постійного оновлення контингенту слухачів та науково-педагогічних працівників. Розкрито системний підхід як методологічну основу розроблення систем гарантування якості підготовки військових фахівців у вищих військових навчальних закладах (військово-навчальних підрозділах закладів вищої освіти). З'ясовано, що системний підхід не існує у вигляді чіткої методики з визначеню логічною концепцією. Ця система, утворена із сукупності логічних прийомів, методичних правил та принципів теоретичного дослідження, що виконує, таким чином, евристичну функцію у загальній системі наукового пізнання.

Важливим результатом функціонування системи – процесу професійної підготовки майбутніх військових фахівців у вищих військових навчальних закладах – є високий рівень готовності майбутніх військових фахівців до практичної діяльності, якого можна досягти тільки за рахунок упорядкування системи на підставі певних принципів, до яких відноситься: принцип об'єктивності, комплексності, конкретно-історичного (генетичного) підходу, системності, протиріччя педагогічного дослідів.

**Ключові слова:** військова освіта, системний підхід, якість освіти, гарантування якості освіти, військові фахівці, вищі військові навчальні заклади, військово-навчальні підрозділи закладів вищої освіти.