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ESSENCE, CONTENT AND PECULIARITIES OF FORMING DIAGNOSTIC COMPETENCE TO APPLICANTS FOR EDUCATION IN HIGHER MILITARY EDUCATIONAL INSTITUTIONS

The article shows that diagnostic competence implies the ability to analyze information, collect evidence, draw conclusions and make decisions based on the data obtained. This competence is important for military personnel in the security and defense sector as well. For many officers, especially heads of units or staff officers, it is a key ability to analyze and evaluate the situation in the course of combat operations. This competence is also important for ensuring the effectiveness of training and development of military personnel.

It has been established that the development of diagnostic competence of a teaching officer requires solving certain problems, since teaching officers may not have proper preparation in the field of pedagogy and teaching methods. They may be experienced military professionals, but that does not necessarily mean they are effective instructors (lecturers).

The formation of diagnostic competence to applicants for education in higher military educational institutions involves taking into account the basic pedagogical conditions for effective training and development of this competence. The main ones are the consistent development of skills and knowledge in this area throughout the entire training, active and interactive nature of learning, practical orientation of the educational process, use of information technologies, interactive tools, remote learning, etc.

A variety of learning tasks and scenarios can be used to develop diagnostic competence to applicants of higher military educational institutions, including observation of the educational process or training sessions, development of diagnostic tests to measure learning outcomes, observation of methodological and practical actions of instructors, independent mastering and use of special information systems and programs for collecting and analyzing data related to diagnostics, participation in role-playing games and modeling of professional situations,
where cadets have to act as an expert and make decisions based on the information received.

**Keywords:** diagnostic competence; future officers; applicants for education; professional training; cadets; professional activity; learning outcomes.

1. INTRODUCTION

In a general sense, diagnostic competence is the ability or skill of a person (specialist) to identify or establish problems, defects, disorders or characteristics of an object, phenomenon, process or situation, i.e. to diagnose, establish a status. This competence is important in many areas of life and professional activity, including medicine, education, engineering, psychology, business, etc. For example, in education, lecturers can use this competence to determine the level of knowledge and develop the skills of applicants for education (students). In the medical field, doctors use diagnostic competence to determine a patient’s health status, illness, or complications based on symptoms and medical tests. In the business world, managers can use diagnostic competence to identify product sales problems and develop strategies to solve them.

Consequently, diagnostic competence implies the ability to analyze information, collect evidence, draw conclusions, and make decisions based on the data obtained. It may include the use of specialized tools, instruments and techniques to achieve accurate and objective results.

Diagnostic competence is also important for military personnel in the security and defense sector. For many officers, especially heads of units or staff officers, it is a key ability to analyze and determine the situation on the battlefield or in the operational environment. It involves the ability to assess enemy forces, their capabilities and intentions, identify threats to one's own forces, and develop appropriate strategies and tactics.

The diagnostic competence of a teaching officer implies the ability of a research and teaching staff member, instructor or head of the training process who teaches at a training center or higher military educational institution (hereinafter – HMEI) to assess and analyze the knowledge and skills
of applicants for education (cadets, students, subordinates) in order to ensure their proper training and professional development. In general, this competence is important for ensuring the effectiveness of training and development of military personnel.

**Problem statement.** The formation of diagnostic competence of a teaching officer is characterized by a number of problems. In particular, the officers who teach may not have proper training in pedagogy and training methods. They may be experienced military professionals, but that does not necessarily mean they are effective instructors/lecturers. The acquisition of diagnostic competence can be complicated by the lack of necessary resources, such as pedagogical materials, models for demonstrating skills, access to modern methods of teaching, etc. Teaching officers may also have additional service workloads and responsibilities that make it impossible to find enough time to develop diagnostic competence.

An important factor that negatively affects the development of diagnostic competence is insufficient support and motivation from management or other lecturers (instructors), which can lead to a loss of interest in developing diagnostic skills. Teaching officers may also work in isolation and not have the opportunity to share experiences and skills with colleagues, which in its turn may limit their development opportunities.

Solutions to these problems may include enhancing the pedagogical training of teaching officers, ensuring access to appropriate resources and support, and establishing a system for sharing experiences and learning.

**Analysis of recent research and publications.** Various aspects of the formation of diagnostic competence to applicants for education, including those in higher education institutions, the issues of its essence, content and features have been the subject of attention of scientists. In particular, the publications of V. Yahupov and I. Plokhuta present a generalization of scientific and pedagogical research, the subject of which is the diagnostic competence of future specialists [1]. The peculiarities of the content of diagnostic competence and its formation to future specialists in pedagogical theory were the subject of attention of O. Kyrychenko [2]. The issue of measuring the formation of diagnostic competence to future specialists in physical training
and sports, in particular, criteria and indicators was considered by O. Dubrovskа [3], and S. Kurtas presented a study on the formation of evaluation competence to a future teacher in the process of Master’s training [4]. Publications by O. Didenko and I. Kozubtsov highlight the general professional requirements for officers in the security and defense sector [5].

At the same time, the concepts of “diagnostic competence of future officers”, “diagnostic competence of teaching officers”, as well as the issue of the peculiarities of forming the diagnostic competence to applicants for education in higher military educational institutions have not been sufficiently developed in pedagogical science.

The aim of the article is to define the essence, content and features of the formation of diagnostic competence to applicants for education in higher military educational institutions.

2. RESEARCH RESULTS

According to scientists, the concept of “diagnosis” is characterized by the concepts of “control”, “verification” and “evaluation”, i.e. it is emphasized that diagnostic activity is a component of pedagogical activity [6].

The concepts of “pedagogical diagnostics”, “pedagogical monitoring”, “diagnostic activity”, “pedagogical control”, “pedagogical assessment”, and “pedagogical verification” have common features and overlap in some cases, but also have their own specific features and characteristics.

A generalization of scientific publications suggests that pedagogical diagnostics is a process of collecting and analyzing information about the academic achievements, development, and needs of education applicants to identify individual problems and approaches to learning. It is aimed at identifying the individual needs of learners and may include diagnostic activities. The main task of pedagogical diagnostics is to identify the main sets of indicators of the state of the pedagogical process, where each indicator can to some extent indicate this state both in general and in its individual components [1].

Pedagogical monitoring is the systematic observation and control of the learning process to track its development and quality. It may include diagnostic activities for collecting data.
Diagnostic activity is a part of pedagogical activity that includes collecting and analyzing information to identify problems, needs and opportunities of education applicants.

Pedagogical control is a process of active management and regulation of the educational process to ensure its effectiveness and achieve pedagogical goals. It includes monitoring and may include diagnostic activities.

Pedagogical assessment is the process of determining the quality, outcomes, and effectiveness of learning and teaching. It may include diagnostic activities to assess learning achievement.

The concept of “pedagogical verification” can be used synonymously with pedagogical control or with the assessment of learning at a particular stage of learning. It can include diagnostic activities to assess the state of learning.

Thus, these concepts are interrelated and can be applied in pedagogical practice. Diagnostic activities can be part of a broader process of pedagogical diagnosis and can be used in pedagogical control, pedagogical assessment, and pedagogical verification to collect data and determine the quality of learning. Diagnostic activity is a component of a lecturer’s pedagogical activity, in the course of which he or she determines the level of professional training, ability and readiness of future specialists to successfully perform professional duties. In view of this, pedagogical activity consists of consecutive stages – it begins with diagnostics, i.e., finding out the initial state of the pedagogical system and its elements, including the capabilities of students (cadets), educator’s resources, and ends with diagnosing the final results [2].

Since the aim of the article is to determine the content of diagnostic competence of applicants for higher education in higher military educational institutions, let us consider its structure.

Thus, for example, S. Martynenko refers to “the ability to analyze, classify, establish cause and effect relationships, recognizing random and false ones among them; to model and transform interaction models, determine the purpose and develop specific tasks of diagnostic study, select diagnostic tools, accumulate and process diagnostic information, perform self-diagnosis, etc.” as diagnostic skills [7, p. 149]. The scientist proposes to consider diagnostic competence as a set of three groups of knowledge. The first group
includes knowledge about the essence and content of diagnostic activity, the means and functions of diagnostic activity, and its composition and specificity. The second group includes knowledge of the theory of pedagogical diagnostics, including methods, techniques and tools; requirements for conducting pedagogical observation, questionnaires, testing, evaluation, monitoring, forecasting, etc. The third group is represented by knowledge of the technology of diagnostic activity, in particular, diagnostic methods and technologies, support of professional activity, covering the main stages of pedagogical diagnostics – from testing to determining their readiness for diagnostic activity [8].

The results of the analytical and search activities allow us to conclude that the diagnostic competence of teaching officers of military educational institutions should cover various aspects and skills for successful diagnostics of cadets’ and students’ academic achievements.

The structure of diagnostic competence of teaching officers should include, first of all, knowledge and understanding of diagnosis as a process. Teaching officers should have in-depth knowledge of the theory and methodology of diagnosis in education. They should understand the basic principles and approaches to diagnosing learning achievements and development of those they teach.

Second, teaching officers should have the skills to plan diagnostic activities, including the ability to define the goal, the skills to select diagnostic methods and tools, and to develop diagnostic tasks and tests.

Third, diagnostic competence implies a developed ability to collect data. Instructors must be able to collect objective data on the academic achievements of cadets and students by means of observation, testing, studying the portfolio of their work, and other methods.

Fourth, teaching officers must have the ability to analyze and interpret the data collected to determine the level of learning achievements and needs of cadets and students.

Fifth, teaching officers must have communication skills, be able to effectively communicate with cadets and students, other instructors and lecturers, and the administration of the educational institution about the results of the diagnosis.
It is also important for teaching officers to have the skills of taking into account the results of the diagnosis and making decisions about further work with learners, to be able to adapt their approaches to diagnosis for different groups of learners, to take into account their individual needs and characteristics.

Since pedagogical diagnostics is constantly evolving, educators should be prepared to continuously improve their competence, learn new methods and tools for diagnosis. At the same time, the structure of the diagnostic competence of teaching officers may vary depending on the specific requirements and characteristics of the educational institution, but it will usually include the following aspects as the main ones.

The formation of diagnostic competence to applicants for higher education in higher military educational institutions requires taking into account the basic pedagogical conditions for effective learning and development of this competence. So, we believe it is reasonable to express our views on this important task.

In our opinion, in order to develop diagnostic competence to the applicants for higher education in higher military educational institutions, it is necessary to adhere to the principle of systematicity and consistency. In view of this, training programs for future specialists should provide for the consistent development of skills and knowledge in this area during the entire training.

Another important pedagogical condition is the active and interactive nature of learning. Applicants for education must participate in diagnostic procedures, communicate with instructors/lecturers and fellow students, and apply the knowledge they have acquired in practice.

Another pedagogical condition for the formation of diagnostic competence is the practical orientation of the educational process. In our opinion, curricula should include practical exercises and tasks that allow students or cadets to learn diagnostics in practice. This may include, for example, analyzing real-life situations and applying diagnostic tools.

It should be noted that applicants for education may have different levels of prior knowledge and skills in the field of diagnosis. In this regard, training should be individualized, allowing each cadet or trainee to develop
their competencies at their own level, taking into account the experience gained.

An important condition for the formation of diagnostic competence is the use of modern teaching methods in higher military educational institutions. This means the use of information technology, interactive tools, remote learning, etc. It is important to use authentic tasks and scenarios. Training tasks should represent real-life challenges and situations that military professionals may face in their future professional activities.

Applicants for education should develop the skills of independent work and self-regulation, since diagnostic competence involves the ability to work on analyzing and improving their own professional experience.

An important condition for the formation of diagnostic competence is practical experience in the field of diagnosis, for example, during internships in military training units or training centers, during pedagogical practice. To do this, applicants for education need to have the opportunity to work with practicing methodologists and educators who are experienced in this field.

Another pedagogical condition for the formation of diagnostic competence is the ability to obtain an objective assessment of one’s learning achievements in the field of diagnosis and receive feedback for further improvement.

Thus, these pedagogical conditions, in our opinion, should contribute to the effective formation of diagnostic competence to applicants for education in higher military educational institutions, their preparation for professional activity and improvement of the overall quality of military education.

A variety of learning tasks and scenarios can be used to develop diagnostic competence to applicants of higher education in higher military educational institutions. For example, cadets can be assigned to observe a classroom or training session and take notes regarding the academic achievements of their groupmates or military personnel. They can observe the process of fire or tactical training and record the results of firing, the level of tactical skills of the servicemen, the level of their physical training, etc. Cadets can also be tasked with developing diagnostic tests to measure learning achievement, which involves creating questions and tasks to as-
ess specific skills or knowledge. The cadets can analyze scenarios of classes and training sessions, observe the methodological and practical actions of instructors/lecturers.

Future officers can be assigned the task of analyzing, identifying the strengths and weaknesses of diagnostic methods and offering ideas for improving the process, such as assessing academic achievement, etc.

In our opinion, it would be quite useful to offer cadets or students to study and use special information systems and programs for collecting and analyzing data related to diagnostics.

Role-playing games and simulations (modeling of professional situations), where cadets have to act as an expert and make decisions based on the information gathered, will also be useful for developing diagnostic competence.

Thus, these tasks should be used to develop practical diagnostic skills, to experience real-life situations and to gain practical experience in the field of diagnosis, which is important for the formation of diagnostic competence.

3. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Thus, diagnostic competence implies the ability to analyze information, collect arguments, draw conclusions, and make decisions based on the data obtained. This competence is also important for military personnel in the security and defense sector. For many officers, especially heads of units or staff officers, it is a key ability to analyze and determine the situation during combat operations. This competence is important for ensuring the effectiveness of training and development of military personnel.

Developing the diagnostic competence of the teaching officer requires solving certain problems, as teaching officers may not have adequate training in pedagogy and teaching methods. They may be experienced military professionals, but this does not necessarily make them effective educators.

Various aspects of the formation of diagnostic competence to applicants for education, including in higher military educational institutions, have been the subject of attention of scientists. At the same time, it is important to define the essence, content and features of the formation of diag-
nostic competence to applicants for higher education in higher military educational institutions.

The formation of diagnostic competence to applicants for higher education in higher military educational institutions requires taking into account the basic pedagogical conditions for effective learning and development of this competence. The main ones are the gradual development of skills and knowledge in this area throughout the entire training, active and interactive nature of learning, practical orientation of the educational process, use of information technologies, interactive tools, remote learning, etc.

A variety of learning tasks and scenarios can be used to develop diagnostic competence to applicants for higher education in higher military educational institutions, including observation of the educational process or training sessions, development of diagnostic tests to measure learning achievements, observation of instructors’ methodological and practical actions, independent mastery and use of special information systems and programs for collecting and analyzing data related to diagnostics, participation in role-playing games and modeling of professional situations where cadets have to act as an expert and make decisions based on the information obtained.

**Promising areas for further scientific research** include highlighting foreign experience in the formation and development of diagnostic competence of applicants for education; researching the possibilities of distance learning for the development of diagnostic skills of cadets and students.

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Діденко О., Сніца Т., Дем’янюк Ю. СУТНІСТЬ, ЗМІСТ
ТА ОСОБЛИВОСТІ ФОРМУВАННЯ ДІАГНОСТИЧНОЇ КОМ-
PЕТЕНТНОСТІ У ЗДОБУВАЧІВ ОСВІТИ У ВІЙСЬКОВИХ
НАВЧАЛЬНИХ ЗАКЛАДАХ
У статті показано, що діагностична компетентність передбачає здат-
ність аналізувати інформацію, збирати аргументи, робити висновки
та приймати рішення на основі отриманих даних. Ця компетентність
також важлива для військовослужбовців у секторі безпеки та оборони. Для багатьох офіцерів, особливо начальників підрозділів або штабних офіцерів – це ключове вміння аналізувати та визначати обставину під час бойових дій. Ця компетентність є важливою для забезпечення ефективності навчання та розвитку військовослужбовців.

Установлено, що формування діагностичної компетентності педагога потребує вирішення певних проблем, оскільки педагоги можуть не мати належної педагогічної та методичної підготовки. Вони можуть бути досвідченими військовими професіоналами, але це не обов’язково робить їх ефективними педагогами.

Формування діагностичної компетентності у здобувачів освіти у вищих військових навчальних закладах потребує врахування основних педагогічних умов ефективного навчання та розвитку цієї компетентності. Основними з них є послідовний розвиток умінь і знань у цій сфері протягом усього навчання, активний та інтерактивний характер навчання, практична спрямованість навчального процесу, використання інформаційних технологій, інтерактивних засобів, дистанційне навчання тощо.

Для формування діагностичної компетентності у здобувачів вищої освіти у вищих військових навчальних закладах можуть бути використані різноманітні навчальні завдання та сценарії, зокрема спостереження за навчальним процесом або навчальними заняттями, розробка діагностичних тестів для оцінювання навчальних досягнень, спостереження за методичними та практичними діями, самостійне оволодіння та використання спеціальних інформаційних систем і програм для збору і аналізу даних, пов’язаних з діагnostикою, участь у ролевих іграх та моделювання професійних ситуацій, де курсантам доводиться виступати в ролі експерта та приймати рішення на основі отриманої інформації.

Ключові слова: діагностична компетентність; майбутні офіцери; здобувачі освіти; професійна підготовка; курсанти; професійна діяльність; результати навчання.

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