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# Building professional competencies of military specialists in different countries

## Desarrollar las competencias profesionales de los especialistas militares de los distintos países

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### Abstract

The quality of training of military specialists and ensuring their high professional competence are key factors for the effective performance of combat missions and ensuring national security in current military conflicts. The aim of the article was to develop a universal military specialist professional competence model based on an analysis of the world experience of training servicemen. The study employed the following methods: content analysis, expert survey, quantitative and qualitative analysis. A universal military specialist professional competence model is presented, which includes an integrated relationship between professional and leadership competencies. Based on a survey of respondents, the priority of professional and leadership competencies in the system of competence of servicemen was determined. The effective use of current military training methods can positively affect the development of key competencies of servicemen. Further research will focus on developing a concept of adaptive learning for building of professional and leadership competencies of servicemen. Further research will focus on developing a



concept of adaptive learning for building of professional and leadership competencies of servicemen. The developed concept will be the basis of digital solutions for personalized training of servicemen.

**Keywords:** Military competencies, integrated system, hard/soft skills, educational technologies, simulation training, field training.

## Resumen

La calidad de la formación de los especialistas militares y la garantía de su alta competencia profesional son factores clave para el desempeño eficaz de las misiones de combate y para garantizar la seguridad nacional en los conflictos militares actuales. El objetivo del artículo era desarrollar un modelo universal de competencia profesional de los especialistas militares basado en el análisis de la experiencia mundial de formación de militares. El estudio empleó los siguientes métodos: análisis de contenido, encuesta a expertos y análisis cuantitativo y cualitativo. Se presenta un modelo de competencia profesional de especialista militar universal, que incluye una relación integrada entre las competencias profesionales y de liderazgo. A partir de una encuesta a los encuestados, se determinó la prioridad de las competencias profesionales y de liderazgo en el sistema de competencias de los militares. El uso eficaz de los métodos actuales de formación militar puede influir positivamente en el desarrollo de las competencias clave de los militares. La investigación futura se centrará en el desarrollo de un concepto de aprendizaje adaptativo para el desarrollo de las competencias profesionales y de liderazgo de los militares. El concepto desarrollado será la base de las soluciones digitales para la formación personalizada de los militares.

**Palabras clave:** Competencias militares, Sistema integrado, Habilidades duras/blandas, Tecnologías educativas, Entrenamiento por simulación, Entrenamiento sobre el terreno.

## Introduction

Technological innovations have radically changed the ways and methods of conducting military operations. Advanced sensor and network technologies, big data analytics, artificial intelligence (AI), next-generation telecommunications systems, additive manufacturing, quantum computing, space and hypersonic missile technologies are the key in interstate strategic competition. The countries' ability to successfully develop, integrate, and use new and breakthrough technologies for military purposes is a critically important element and indicator in the global competition for power. Overcoming threats arising from information warfare and cyber threats is a factor of national security. A structured national system for the long-term management and organization of military innovations is a critical element of its effectiveness (Soare & Pothier, 2021). In this regard, training, retaining, and upgrading professional personnel to ensure innovative military systems is an urgent task for the states in the face of geopolitical challenges, technological breakthroughs, and social priorities.

As the comprehensive progress in a number of new and breakthrough technologies has influenced a sharp change in the forms and methods of conducting military operations, the educational system has increasingly face with the need for accelerated adaptation and integration of new technologies into military personnel development curricula. According to He et al. (2022), military education must keep pace with modern digitalization trends and become more adaptive to change. According to Dyka et al. (2023), the effective integration of information technologies (IT) into training is a strategic priority in the development system of modern education. However, it should be taken into account that technological and tactical military innovations require a different set of skills, and the rapid integration of military innovations requires new training regimes and career advancement models.

Modern military technologies are changing the requirements for the professional qualities of servicemen. Given the emergence and development of new methods of warfare, education specialists are looking for appropriate learning strategies, methods and approaches to develop effective educational environments that take into account innovative pressure and promote the development of targeted competencies in



military specialists. The search for methods and strategies for achieving educational effectiveness, which implies preparing students for full, effective, and innovative participation in professional activities, is becoming a priority for higher military education.

According to Kirchner (2024), modern educational practices must provide extensive military training and be aligned with the program for developing the unique technical skills of military personnel. Researchers Riyanto et al. (2023) identify three constructs - work motivation, technical physical skills, and emotional intelligence - that have a significant impact on predicting performance and career growth of military personnel. According to Adeoti et al. (2024), motivational factors are becoming an important aspect in the formation of military specialists' competence. Understanding the diversity of military personnel's motivation is crucial for the effective development of their competences. It is necessary to consider the possibility of developing individual career plans that take into account individual motivations and career aspirations. Long-term engagement and retention strategies for military personnel should be multifaceted and adaptable to individual needs and career stages.

Globalization and rapid technological progress necessitate the modernization of teaching methods and technologies in order to ensure high-quality education. One of the key aspects of this process is the study of international experience in integrating digital technologies into the educational process, improving the pedagogical training of teachers. These also include the creation of a modern infrastructure for the effective use of innovative approaches. The relevance of studying the world experience of military training is determined by the need to take into account the best international practices and innovative approaches in the field of military education. Analysis of advanced world practices makes it possible to adapt effective methods to national characteristics, directing them to solving specific tasks, in particular, to building students' professional military competence. The search for optimal ways to develop the professionalism of military specialists adapted to modern challenges is an important task of higher military education. So, the aim of the study was to analyse the world experience in the development of professional competencies of servicemen and develop a universal military specialist professional competence model. The aim was achieved through the fulfilment of the following research objectives:

- Analyse current trends in military education in NATO member countries, using the example of the USA, Great Britain, France, Germany, Poland. and Estonia;
- Develop a universal military specialist professional competence model that can be used to train military specialists capable of acting effectively in the face of modern geopolitical instability and technological changes;
- Based on a survey of respondents, determine priority professional and leadership competencies in a comprehensive system of servicemen's competencies;
- Develop recommendations for the implementation of world experience in the system of building professional competence of military specialists.

## Literature Review

Analysis of world experience helps to adapt advanced methods to national conditions and solve specific problems related to the development of students' professional military competence. Current academic research has raised issues related to current competencies of military specialists. According to He et al. (2022), military training and education are closely related, influence each other and can be improved through combination. According to Rzepecka & Sylwestrzak (2023), competency management requires certain interdisciplinary knowledge, resources, necessary information and effective communication. According to Kubova-Semaka (2020), the concept of competence reflects a holistic approach to professional activity, which requires synergy of various components of competence. The methodological strategy of the integrative approach focuses on the holistic unification (integration) of homogeneous and heterogeneous components of systems. In this context, the competency approach defines learning as a single integral personally oriented organism with a set of cognitive, motivational value, and interactive components.



According to Jovanov et al. (2022), integrative learning can be defined as the process of establishing connections between skills and knowledge, between theory and practice. Learning based on this approach can be very effective, as interconnected content contributes to the acquisition of knowledge and learning experience that is complete, valuable, and practical. The integration process requires the creation of conditions for the implementation of integrative pedagogical activities. Preparation for its implementation should be carried out in stages using integrated technologies that form the conceptual basis of students' professional training.

The issue of transforming approaches to understanding the structure of professional competencies is covered in such studies as He et al. (2022), Kubínyi & Saliger (2021), Hughes et al. (2023). According to He et al. (2022), military specialists are required to have broader and more professional knowledge and skills in modern realities. They must be flexible, take into account general and situational aspects of a real threat. At the same time, they must be able to think critically, approach problems strategically, develop alternative options and make effective decisions. The researchers Kubínyi & Saliger (2021) believe that a military specialist must be motivated and proactive, identify himself with the goals, vision, and tasks of the team.

Accordingly, Hughes et al. (2023), military students must acquire critical knowledge and skills at an incredible speed, and use them throughout their careers. The training of military specialists should be oriented towards the implementation of a triple task: responding to operational needs, adapting to strategic and technological developments, and social development. Given the limited time and resources available for training, it is very important to optimize these activities, using all available resources. According to the authors, digital and information literacy, critical and analytical thinking, becomes extremely important for a military specialist, as modern military conflicts require specialists to interact with high-tech systems.

The issue of developing leadership qualities in the military was studied by Gregg (2024), Sylwestrzak (2024) and Upton et al. (2024). According to Gregg (2024), the training of leaders at all levels enhances the combat capability and adaptability of the army. In the study by Sylwestrzak (2024), the issue of developing leadership qualities of military commanders of the tactical level was explored. The researcher concluded that it is necessary to model the concept of education and training of servicemen in such a way that it covers a wide range of competencies. It should include not only professional (military) skills, but also socio-pedagogical competencies.

The importance of developing leadership qualities in modern military personnel in contests of Ukraine is emphasized by Upton et al. (2024). They identified priority skills and abilities necessary for military specialists. They include leadership, the ability to foresee, plan and manage, innovative adaptability, problem-solving skills, political acumen, and negotiation skills. Strategic thinking, the ability to achieve goals, self-learning ability, and flexibility of thinking are also important. In modern condition, Ukraine demonstrates innovative use of old technologies in combination with new solutions in the context of military operations. This emphasizes the importance of integrating programmes for the development of critical and creative thinking into the military training system. So, in global military education there is a tendency to change the understanding of the competence of a serviceman, there is an accelerated integration of new competencies into the structure of the general competence of the military.

According to Herrera (2020), it is also important to focus on the continuous improvement of the skills of military personnel and the development of their combat readiness. This process includes several stages. The first stage involves developing initial combat readiness, testing, and providing appropriate resources so that the military is ready for advanced training. The next stage involves increasing combat readiness, conducting in-depth individual and group training, improving the competence of military personnel, and providing the necessary resources for deployment as part of their operational units. The following stages involve actions aimed at maintaining the readiness of military personnel. This includes continuous training and resourcing of units before and after deployment to ensure that units are ready to perform future tasks.

The emphasis is placed not only on the development of professional skills, but also on the formation of leadership qualities necessary for effective management and decision-making in difficult conditions. However, the issues related to the integration of professional and leadership competencies into a single system, which is an important aspect of the training of modern specialists, are not sufficiently covered. In particular, methods for harmoniously combining technical skills, strategic thinking and management skills to ensure the effective performance of professional duties in the face of current challenges require further research. Besides, ways to integrate modern educational technologies, traditional teaching methods and innovative pedagogical approaches into the general system of training of servicemen require more detailed research. According to the authors, professional and leadership competencies of servicemen should be developed in synergy and complementarity.

## Methods and Materials

### Research design

The empirical study was conducted sequentially in several stages. The research design is presented in Figure 1.



**Figure 1.** Research design

Source: developed by the author

### Sample

A joint online working conference was held in February 2025. It was attended by 45 teachers and methodologists. The specialists were from the National Defence University of Ukraine, the Department of Operational and Technical Measures of the National Academy of the Security Service of Ukraine, military unit A2641, and Kamianets-Podilskyi Ivan Ohienko National University. The study involved 7 independent military experts from the USA, Great Britain, France, Germany, Estonia, and Poland (Table 1). The choice of countries for the study was determined by the intention to cover the diversity of approaches to the

development of professional competence of servicemen in different countries. The selection is based on such criteria as the diversity of formats and areas of training, including the training of cyber troops, the diversity of military experience and strategic priorities, NATO membership, and standardization of training.

**Table 1.**  
*Characteristics of the expert group of the study*

Expert group of the study	Country	Experience, specialization
Expert 1	United States	former US Special Forces officer, expert in special operations tactics and combat training of elite units
Expert 2	United States	reporter, expert on military topics
Expert 3	United Kingdom	expert in officer training and adaptation of troops to modern threats
Expert 4	Estonia	cybersecurity specialist, expert in territorial defence and interoperability of small armies in NATO
Expert 5	France	former French Foreign Legion officer, expert in extreme conditions of combat training
Expert 6	Poland	former GROM Special Forces officer, expert in training reservists, as well as reconnaissance and sabotage operations
Expert 7	Germany	military analyst, expert in cybersecurity and military training of cyber troops

*Source: developed by the author*

## Methods

The following methods were used to conduct a comprehensive analysis:

1. Content analysis was applied to analyse international experience in the development of military competence of military specialists.
2. Questionnaire survey was used to assess expert opinion on the development of professional competence of servicemen. The survey of respondents was conducted in two stages. The first stage involved the respondents' assessment of the priority of professional and leadership competencies in the general system of competence of a military specialist. The second stage involved the experts' assessment of the degree of influence of modern methods of professional training of military specialists on the development of professional competencies. The survey used a 5-point Likert rating scale.
3. Quantitative and qualitative analysis was used to determine the most effective directions for the development of professional military competencies.

## Instruments

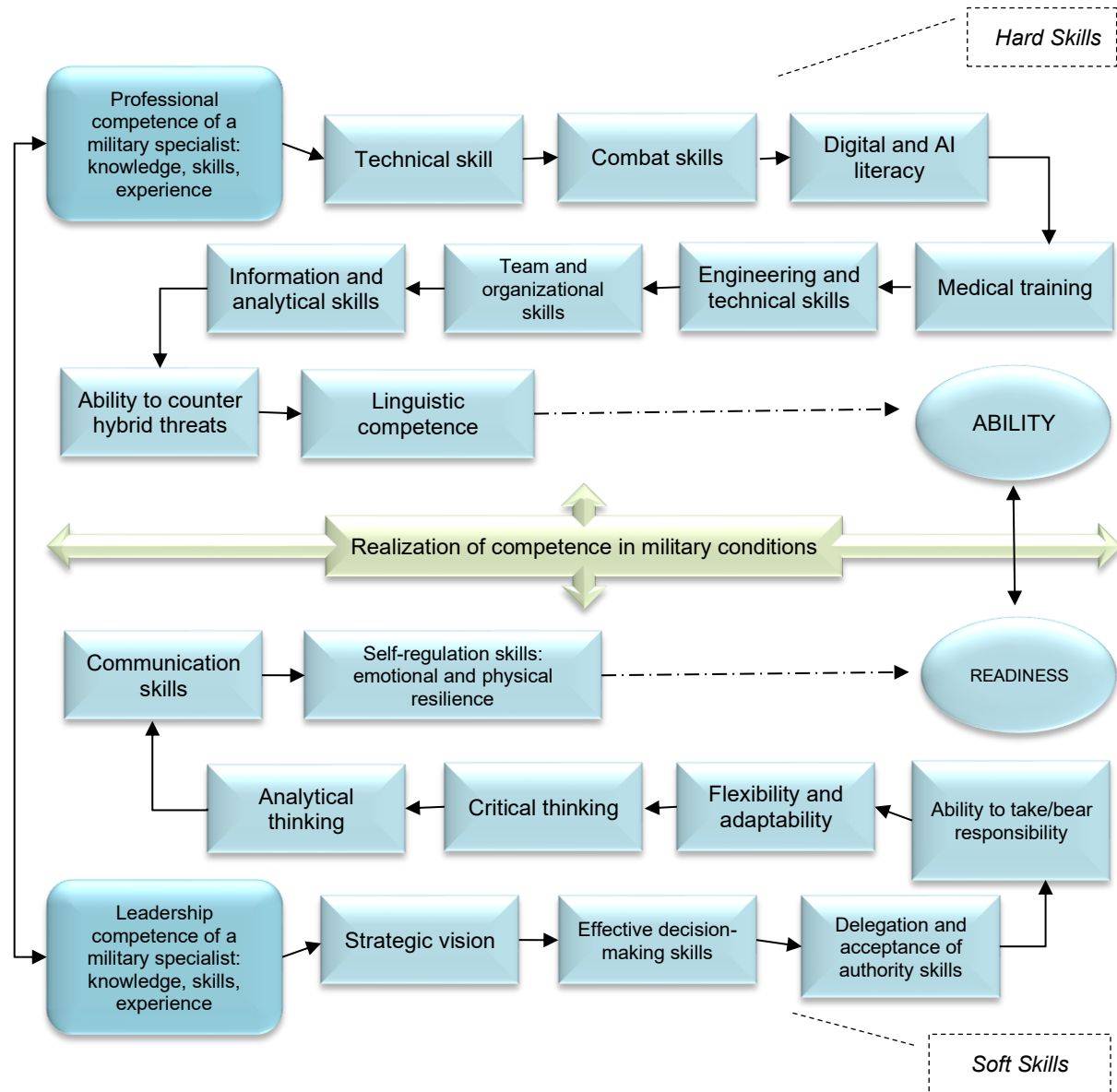
The online conference was held on the educational platform Zoom. The survey of respondents was carried out using the Google forms service. The obtained data were analysed and processed using statistical methods and Microsoft Excel software.

## Results

The results of the analysis of the experience of military training in different countries gives grounds to assert that the nature of current military conflicts and the evolution of military technologies radically change the requirements for military specialties. The military must have not only traditional tactical and operational military skills, but also the ability to quickly adapt to the unpredictable conditions of hybrid and asymmetric wars. New methods of warfare, the integration of unmanned systems, AI and big data analytics require specialists to have high digital literacy and flexibility. Innovative developments in the military industry and the accelerated advancement of military technologies require constant improvement of skills and knowledge. A universal military specialist professional competence model was designed taking into



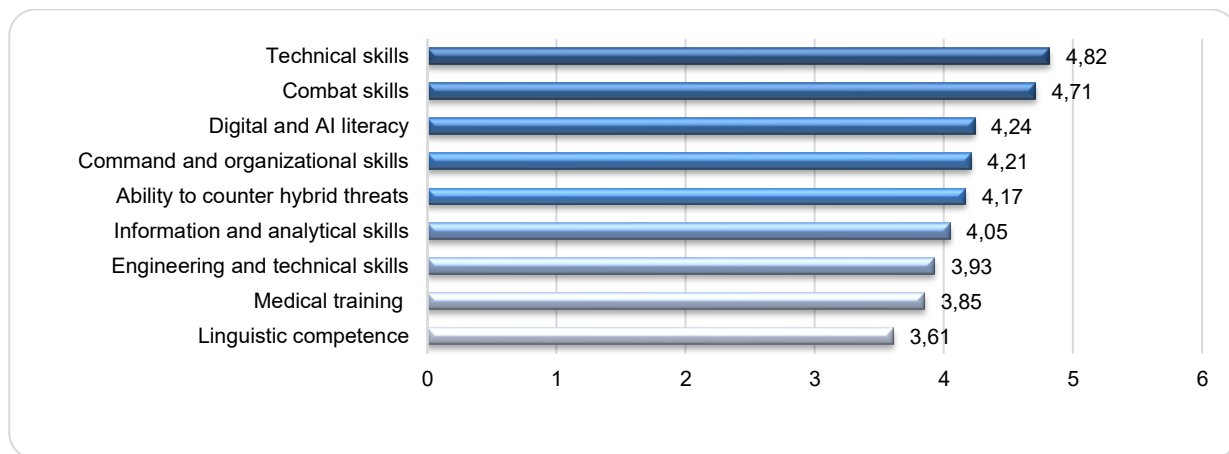
account the key trends and transformations in the military training system and the recommendations of military experts who participated in the working conference (Figure 2).



**Figure 2.** Universal military specialist professional competence model  
 Source: developed by the author

The model assumes an integrated relationship between professional and leadership competence, which forms the ability and readiness of a specialist to work in the face of real military conflicts. The key components (Hard/Soft Skills) of the competence of a military specialist were identified. The professional competence of a military specialist consisted of the following competencies: 1) technical skills, 2) combat skills, 3) digital and AI literacy, 4) information and analytical skills, 5) command and organizational skills, 6) engineering and technical skills, 7) medical training competence. The leadership competence of a military specialist consisted of the following competencies: 1) strategic vision; 2) effective decision-making

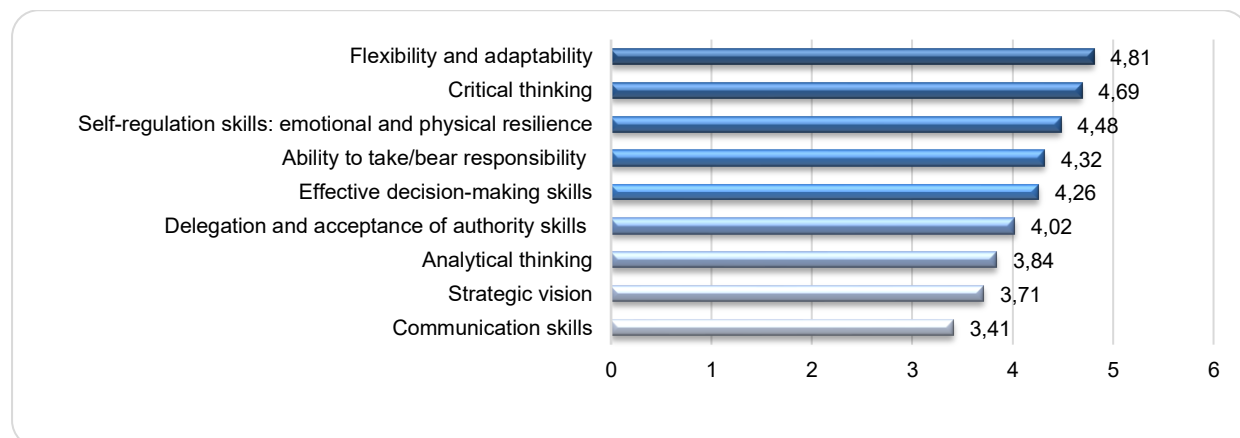
skills; 3) delegation and acceptance of authority skills; self-regulation skills: emotional and physical resilience. Together with military experts who participated in the working conference, recommendations were developed for the implementation of world experience in the system of building the competence of military specialists. The results of the survey of respondents gave grounds to identify priority competencies in the servicemen competence system (Figure 3, Figure 4).



**Figure 3.** Priority of professional competencies in the serviceman's competence system

Source: developed by the author

Technical skills ranked first in the system of the servicemen's professional competence was taken by with a score of 4.82, which emphasizes the importance for military personnel of a high level of technical skills for effectiveness. Combat skills rank second with a score of 4.71, which are key to the effective performance of tasks in combat situations. The digital and AI literacy ranked third with a score of 4.24, which indicates the importance of using digital technologies and AI to increase the effectiveness of combat operations. The respondents included flexibility and adaptability (4.812 points), critical thinking (4.69 points) and self-regulation skills: emotional and physical resilience (4.48 points) as priority leadership competencies. These competencies contribute to the effective management of units in a rapidly changing combat environment, ensuring operational advantage and successful performance of combat missions.



**Figure 4.** Priority of leadership competencies in the serviceman's competence system

Source: developed by the author

There was a difference in the opinions of experts from different countries regarding the priority of military competencies, which indicates different approaches to the assessment and importance of specific skills in



military training systems. Experts from Estonia, Germany and the UK preferred technical skills and the ability to work with the latest military technologies, while experts from France, Poland, and the USA emphasized the importance of combat skills, strategic thinking and the ability to adapt to changing conditions on the battlefield. These differences may be determined by both the national characteristics of military training systems and the specifics of military strategic approaches.

The respondents assessed the methods of education and military training that affect the ability and readiness to act effectively in military conditions. The following methods were assessed: 1) theoretical training; 2) physical training; 3) field exercises; 4) interactive training with elements of gamification; 5) modelling and simulations with virtual reality (VR)/ augmented reality (AR); 6) mentoring and coaching; 7) the “experience exchange” method; The results of the survey of respondents are presented in Table 2.

**Table 2.**

*The impact of methods of building professional military competence on the ability and readiness to act effectively in military conditions*

Professional competence of a serviceman	Methods of building professional military competence						Average value
	Theoretical training	Physical training	Field training	Interactive training with gamification elements	Modelling and simulation with VR/AR	Exchange of experience method	
Professional competence of a military specialist: knowledge, skills, experience							
Technical Skills	2.87	3.12	4.95	4.78	4.98	4.86	4.26
Combat Skills	2.13	3.78	4.89	3.88	4.67	4.75	4.02
Digital and AI Literacy	2.46	1.74	4.11	4.89	4.76	4.86	3.80
Command and Organizational Skills	2.11	2.57	4.79	4.12	4.21	4.23	3.67
Ability to Counter Hybrid Threats	2.78	1.82	3.76	4.92	4.13	4.78	3.70
Information and Analytical Skills	3.19	1.54	3.71	4.96	4.37	4.67	3.74
Engineering and Technical Skills	3.23	1.64	4.69	4.32	4.75	4.41	3.84
Medical Training	2.68	2.56	2.85	3.38	3.47	3.87	3.14
Linguistic Competence	2.18	1.43	1.27	2.52	2.87	2.14	2.07
Leadership competence of a military specialist: knowledge, skills, experience							
Flexibility and adaptability	2.12	4.51	4.89	4.12	4.79	4.97	4.23
Critical thinking	2.69	2.75	4.83	4.78	3.91	4.89	3.98
Self-regulation skills: emotional and physical resilience	2.52	4.13	4.17	3.98	4.21	4.01	3.84
Ability to take/bear responsibility	2.06	3.69	4.31	3.24	4.58	3.23	3.52
Effective decision-making skills	2.67	2.98	4.11	4.37	4.89	4.76	3.96
Delegation and authority skills	2.58	2.58	4.87	4.12	4.67	4.81	3.94
Analytical thinking	3.12	2.84	3.28	3.87	3.21	3.69	3.34
Strategic vision	2.87	2.59	4.52	3.92	4.67	4.01	3.76
Communication skills	2.47	1.47	4.12	3.01	2.87	3.78	2.95
Average value	2.60	2.65	4.12	4.07	4.22	4.26	

*Source: developed by the author*

Therefore, the effective application of military training methods can positively influence the development of key competencies of servicemen. The combination of these methods helps to prepare highly qualified military specialists capable of effectively responding to the challenges of the modern combat environment. According to the respondents, modern military training methods have the greatest impact on the development of technical skills (4.26 points), combat skills (4.02 points), as well as engineering and technical skills (3.84 points). High marks were also given to such leadership competencies as flexibility and

adaptability (4.23 points), critical thinking (3.98 points), and effective decision-making skills (3.96 points). This indicates the importance of integrating innovative training methods to train military specialists capable of operating in a rapidly changing combat environment and complex geopolitical situations.

## Discussion

Analysis of the world experience in the development of professional competencies in military specialists has demonstrated trends towards the accelerated integration of advanced digital technologies into training practices. Modern technologies, such as VR/AR, AI and simulators, open up new opportunities for the creation of interactive simulators and educational platforms. Digital technologies allow for high-quality simulation of combat operations, conduct virtual training, and effectively develop skills in working with high-tech equipment. According to Jabłońska-Wołoszyn et al. (2022), military training should be aimed at increasing the combat capability of the army and its compliance with NATO standards. These activities include: 1) military training programmes (introduction of simulation and interactive training methods, implementation of digital tools in the course of command staff exercises, adaptation of training programmes to modern challenges and educational trends); 2) infrastructural modernization of the military education system (digital modernization of existing training grounds, testing of new types of weapons, training of the military in network warfare tactics, modelling and digitization of scenarios based on real combat operations).

The introduction of digital educational technologies makes the process of training military personnel faster, more flexible and adaptable to modern challenges. This is consistent with the results presented in this study, which confirmed the importance of innovative updating of both the educational infrastructure, as well as pedagogical methods and approaches. However, according to Ukrainian researchers, Gennadiiovych Danilyan et al. (2023), pedagogical and psychological issues related to the readiness of the teaching staff and students to effectively use them in their studies should be taken into account. According to Chmyr et al. (2024), the creation and development of a positive technological learning environment requires the implementation of a number of measures. They include: defining clear learning goals, studying the cadets' needs, developing a digital educational infrastructure, constantly improving digital learning technologies, and motivating cadets for their studies and future careers.

A study by Chinese researchers Wang & Bu (2023) dealt with the problem of insufficient attention to the development of humanistic qualities of military personnel in Chinese military schools. According to the researchers, it is necessary to integrate humanistic education into all areas of military education. This is consistent with the opinion of Romanian researchers Culea (2024), who emphasized the importance of morale as the most important dimension of combat power. The results of the study with the participation of 32 military personnel with experience of missions, conflict zones or combat operations showed that the morale of soldiers has a decisive influence on their actions. According to the authors, it is necessary to cultivate the fighting spirit of military personnel, united by common values: devotion, determination and courage.

According to Upton et al. (2024), the development of critical and creative thinking skills requires modelling of the educational environment. Military specialists must have creative imagination to develop new ways of solving problems and critical thinking to implement innovative ideas into reality. According to Enstad (2022), military games and field exercises play a key role in forming a deep understanding and professional practice of the future officer. This is consistent with the results of our study, which shows the prospect of using stimulating approaches to military training. According to the authors, educational interactions with AI, VR and AR should be involved in the educational process to the maximum possible extent. VR-based modelling of training conditions should be focused on the targeted assimilation of theory and practice by students through solving specific combat or tactical tasks.

In the study of Sukman (2024), the authors argue that one of the most effective ways to learn is to observe other countries in wartime. This method of learning covers the tactical, operational, strategic and institutional levels of warfare. Skills are acquired both through the analysis of events on the battlefield and



world events, and through the assessment of one's own reactions as the situation develops. At the same time, our study does not emphasize the method of learning through passive observation, but actualizes the "exchange of experience" approach instead, which involves active interaction, practical application of the acquired knowledge and direct participation in the learning process. Rapid technological progress and the growing capabilities of opponents require adaptation and constant innovation on the battlefield (Beagle & Rund, 2024).

In the study of Armstrong et al. (2024), the authors showed how an innovative approach in military affairs increases the effectiveness of tactical operations, reduces risks, and accelerates the introduction of technologies. According to Jermalavičius (2024), combining innovation with international cooperation contributes to strengthening the defence capability of the army. At the same time, our study does not cover the issue of the importance of innovative thinking of a military specialist as one of the priority skills. Further research can be aimed at determining the role of innovative thinking in strategic decision-making and adaptation to rapidly changing combat situations.

As Mikkonen et al. (2024) noted, military specialist training programmes may require an individual approach that takes into account the level of physical fitness, military environment, and gender differences. Such an adaptive approach allows not only to increase the effectiveness of military personnel training, but also to create a more inclusive and sustainable military training system (O'Neill & Hinton, 2023). Our study did not consider gender aspects of the development of professional competence of the military, but special attention was paid to the importance of an adaptive approach to training and the prospects for integrating digital tools into this process. Such an approach will contribute to increasing the effectiveness of training specialists, taking into account individual needs and current technological capabilities.

### **Limitations**

The main limitation of the study is the limited number of participants in the expert group. The study involved only seven independent military experts, which limits the diversity of perspectives. A larger sample could have yielded more objective results. Besides, the study included only six NATO countries. This may limit the completeness of the analysis, as other alliance countries with different models of military training remain uncovered.

### **Recommendations**

The international experience in building of military specialists' competence and the results of the survey of respondents gave grounds to provide the following recommendations:

1. Educational institutions should modernize the infrastructure and create conditions for the development of 21<sup>st</sup> century military skills. It is important to ensure adaptability to new methods of conflict management, in particular hybrid and high-tech threats. The introduction of autonomous systems and robotics into training scenarios, digital simulators for simulating combat, command decisions, and logistics should be applied in the process of updating educational programmes.
2. It is necessary to ensure the standardization of military training through the integration of educational programmes with leading educational institutions in the world. Joint training under the educational partnership programmes will contribute to the exchange of advanced tactics, strategies, and methods of conducting combat operations. Joint research in the field of defence technologies and military innovation will ensure the best preparedness of military specialists for resolving military conflicts.
3. Military education should combine traditional combat skills with high technology, analytical thinking, and strategic vision. VR modelling of training conditions should be focused on the targeted mastery of theory and practice by students through the solution of specific combat or tactical tasks. Field training should provide military personnel with the necessary skills for the effective completion of combat missions. Attention should be focused on practical training, the use of modern technologies, and the importance of conducting a detailed analysis of training results.



## Conclusions

The nature of modern armed conflicts and the evolution of military technologies radically change the requirements for military specialists. New methods of warfare, innovative developments in the military industry, and accelerated renewal of military technologies require constant improvement of skills and knowledge. The study provides an overview of current approaches to the development of professional competencies in the military forces system. A universal military specialist competence model is designed. The model provides for an integrated relationship between professional and leadership competence, which forms the ability and readiness of a specialist to work in the face of real military conflicts.

The results of the survey of respondents identified key competencies that form the basis of professional training of military personnel. Technical skills ranked the highest – 4.82 points, combat skills rank second (4.71 points), and digital literacy and knowledge of AI (4.24 points) rank third. These skills are an integral part of the effective activities of the military in situations where accuracy, reliability, and efficiency of task performance are important factors. Regarding leadership qualities, respondents identified flexibility and adaptability (4.81 points), critical thinking (4.69 points), and self-regulation skills, including emotional and physical resilience (4.48 points), as priorities. These competencies are the basis for effective command in a dynamic and unpredictable combat environment, where they contribute to ensuring superiority and successful task performance.

The effective use of military training methods contributes to the development of key competencies of military personnel, forming qualified specialists capable of adapting to modern combat conditions. It is justified that the combination of stimulation training with field training creates a flexible and effective system adapted to modern challenges. The integration of AI and VR in combat skills training minimizes costs and ensures safety. Virtual simulation helps to focus on theoretical and practical combat tasks, practice tactical decisions, simulate a modern enemy, predict threats, and optimize the interaction of units. Field exercises with an emphasis on new methods of warfare and coordination with NATO allow for effective training of servicemen. The development of international training programmes and the exchange of experience improve the training of the military and strengthen military cooperation. Standardization of military training through integration with leading educational institutions increases the interoperability of troops.

Further research will be to develop a concept for training military specialists with an emphasis on combining digital learning with the use of AI, VR, and field training. A feature of the concept will be the use of a problem-oriented approach to training, as well as modelling of educational practices that combine the methodology for building of professional and leadership competencies in one integrated system. This will contribute to the creation of individualized educational trajectories that combine digital tools, AI and VR to support military specialists at different stages of training and professional development.

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