

# Methodological Foundations of Military Scientific and Pedagogical Personnel Training in the Context of National Security

## Методологічні засади підготовки військових наукових та педагогічних кадрів у контексті національної безпеки

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**Purpose.** To analyze the methodological foundations of military scientific and pedagogical personnel within the context of national security and to assess the possibilities for their application in the Azerbaijani context.

**Method.** It is a systematic methodology based on the analysis of military pedagogical and scientific literature, comparative analysis, the study of problem-based learning models, and the integration of international standards.

**Theoretical implications.** The study demonstrated that the training of military pedagogical personnel is based on the synthesis of the principles of pedagogy, management, and military science, and aims at the development of individual, collective, strategic, and ethical competencies. The training process ensures the formation of strategic thinking and decision-making abilities through the integration of theoretical knowledge with practical skills. Contemporary pedagogical approaches, particularly innovative and problem-based learning methods, constitute the foundation of effective personnel training aligned with national security requirements.

**Practical implications.** In the training of military pedagogical personnel, practical outcomes are manifested in the enhancement of students' operational decision-making skills within real combat and operational scenarios. Through training games, simulators, and hybrid training models, students develop tactical and strategic competencies while strengthening both individual and collective collaboration abilities. This approach optimizes the practical preparedness of personnel and ensures their effective integration into the national security system.

**Value.** This article scientifically demonstrates the significance of methodological approaches in the training of military scientific and pedagogical personnel within the context of national security and evaluates the possibilities for their effective application. At the same time, the study provides theoretical and practical contributions to the modernization of the Azerbaijani military education system and the optimization of personnel's strategic and tactical preparedness.

**Paper type.** Theoretical.

**Мета дослідження.** Проаналізувати методологічні засади підготовки військових науково-педагогічних кадрів у контексті національної безпеки та оцінити можливості їх застосування в умовах Азербайджану.

**Метод дослідження.** Системна методологія, що базується на аналізі військово-педагогічної та наукової літератури, порівняльному аналізі, дослідженні моделей проблемно-орієнтованого навчання та інтеграції міжнародних стандартів.

**Теоретична цінність дослідження.** Дослідження показало, що підготовка військових науково-педагогічних кадрів ґрунтується на синтезі принципів педагогіки, управління та військової науки і спрямована на розвиток індивідуальних, колективних, стратегічних і етичних компетентностей. Навчальний процес забезпечує формування стратегічного мислення та здатності до прийняття рішень шляхом інтеграції теоретичних знань із практичними навичками. Сучасні педагогічні підходи, зокрема інноваційні та проблемно-орієнтовані методи навчання, становлять основу ефективної підготовки кадрів відповідно до вимог національної безпеки.

**Практична цінність дослідження.** У підготовці військових науково-педагогічних кадрів практичні результати проявляються у підвищенні здатності слухачів до оперативного прийняття рішень у реальних бойових та оперативних ситуаціях. За допомогою навчальних ігор, тренажерів і гібридних моделей підготовки формуються тактичні та стратегічні компетентності, а також зміцнюються навички індивідуальної та колективної взаємодії. Такий підхід оптимізує практичну готовність персоналу та забезпечує його ефективну інтеграцію до системи національної безпеки.

**Цінність дослідження.** У статті науково обґрунтовано значення методологічних підходів у підготовці військових науково-педагогічних кадрів у контексті національної безпеки та оцінено можливості їх ефективного застосування. Водночас дослідження робить теоретичний і практичний внесок у модернізацію системи військової освіти Азербайджану та оптимізацію стратегічної й тактичної підготовленості персоналу.

**Тип статті.** Теоретична.

**Key words:** Military Personnel Training, Pedagogical Methodology, National Security, Military Education System, Strategic Training, Innovative Pedagogical Technologies.

**Ключові слова:** підготовка військовослужбовців, педагогічна методологія, національна безпека, система військової освіти, стратегічна підготовка, інноваційні педагогічні технології.

## **Introduction**

The training of military scientific and pedagogical personnel is one of the key factors ensuring the effectiveness of the national security system. In the modern era, states' national security strategies are not limited to strengthening military equipment and weapons systems; the primary focus is on the preparation of personnel possessing strategic thinking, leadership skills, decision-making abilities, and a high level of professional ethical and cultural education. From this perspective, military pedagogical activity should aim not only at the transfer of knowledge and practical skills but also at the comprehensive development of individual and collective readiness.

The training of military personnel within the context of national security is relevant both for protecting the strategic interests of the state and for providing an adequate response to international security challenges. The complex military operations and non-traditional threats of the 21st century require the continuous improvement of methodological approaches in the military education system. Accordingly, the preparation of pedagogical and scientific personnel should focus not only on technical and tactical knowledge but also on the development of strategic analytical skills, critical thinking, and innovative problem-solving abilities.

The purpose of this article is to analyze the methodological foundations of military scientific and pedagogical personnel training in the context of national security, to evaluate the existing theoretical and practical approaches in this field, and to explore their application possibilities in the Azerbaijani context. The article also emphasizes the importance of innovative methods, research-oriented training, and strategic preparedness in the military education process.

The relevance of this study stems directly from its connection to the state's security policy. Improving the methodological approaches applied in the training of military personnel not only enhances their effectiveness in operational scenarios but also increases the efficiency of strategic decision-making processes. In this regard, military pedagogical personnel training is regarded as one of the pillars of the national security system and constitutes a timely and significant scientific research topic.

## **Theoretical Background**

Military personnel training is based on the synthesis of the principles of pedagogy, management, and military science, and aims at the development of individual, collective, strategic, and ethical competencies. The training process is not limited to the transmission of theoretical knowledge but also ensures the formation of practical skills, critical thinking, and decision-making abilities. Contemporary military pedagogical approaches, particularly through problem-based learning and innovative training technologies, provide effective preparation of personnel in accordance with national security requirements.

## **Problem Statement**

The methodological principles of military personnel training within the context of national security have not yet been fully systematized, and scientific research on the effectiveness of various training models remains limited. Challenges persist in the military education system regarding the integration of theoretical knowledge with practical skills, as well as the development of strategic thinking and leadership abilities. Therefore, it is necessary to develop a concept of military personnel training that aligns with national security requirements, is grounded in scientific principles, and incorporates innovative methodologies.

## **Results**

### **Methodological Approaches in the Context of National Security**

National security plays a central role in safeguarding the strategic interests of the state in the

modern era. Within this context, the training of military personnel should not be limited to the transmission of tactical and technical knowledge but should also focus on the development of strategic thinking, analytical skills, leadership qualities, and decision-making abilities (Ahmadov, H., 2024). Methodological approaches establish the scientific foundations for designing and effectively managing a military pedagogical system aligned with national security requirements. They serve to develop both the knowledge and skills of personnel as well as their psychological and ethical preparedness in an integrative manner.

The first methodological principle is research-oriented training. According to this approach, military personnel should be equipped not only with theoretical knowledge but also with research and analytical skills. Such a training model enhances personnel's decision-making and strategic planning abilities in complex military operations. At the same time, the research-oriented approach fosters critical thinking and the ability to solve problems analytically. In this regard, problem-based learning (PBL) methods are particularly significant; they ensure the practical preparation of personnel by simulating real situations and solving complex tasks in military pedagogical training (Mammadzada, M., 2025).

The second key approach is the application of innovative pedagogical technologies. Modern military education programs make extensive use of virtual laboratories, simulators, interactive teaching methods, and digital platforms. These technologies not only enhance personnel engagement in the training process but also develop their strategic and tactical thinking abilities (Aghayev, S. O., Hashimov, E. Q., & Talibov, A. M., 2016, pp.106-107). Hybrid training models, which integrate online and traditional learning, also allow for the creation of adaptive programs tailored to the individual learning pace of military personnel. This is especially important for developing rapid decision-making and adaptability skills, which are critical for national security.

The third methodological principle is an integrative training and assessment system. The goal here is not only to teach knowledge and skills but also to objectively evaluate the performance of military personnel. The assessment process should encompass theoretical, practical, ethical, and psychological components. It organizes educational objectives across cognitive, affective, and psychomotor domains and facilitates the establishment of an integrative assessment mechanism in military pedagogical training.

Furthermore, strategically oriented training methods are of particular importance in the context of national security. Military personnel should engage not only in tactical operations but also in strategic planning, risk analysis, and the evaluation of security policies (NATO, 2023). To this end, military training programs are structured based on a modular and phased system, with each module targeting the development of specific competencies. Military training games and simulations serve as effective tools for fostering strategic thinking and enhancing decision-making abilities in real-world situations.

In recent years, the integration of innovative methods in the field of national security and personnel training has been recognized as a significant trend. Artificial intelligence, virtual reality, and other digital technologies, when applied in military pedagogical processes, enhance the interactivity and adaptability of training. These technologies also ensure the preparedness of personnel for real combat and security scenarios and increase the effectiveness of their professional activities (Aghayev, S. O., Hashimov, E. Q., & Talibov, A. M., 2016, pp. 83).

Methodological approaches in the context of national security not only define the structure of the military pedagogical system but also ensure the integrative development of strategic and practical preparedness. The improvement of these approaches and the application of innovative methods strengthen personnel competence and, in turn, enhance the resilience of the state's national security system.

### **Application Opportunities in the Azerbaijani Context**

Azerbaijan's military education system is closely linked to national security and state strategy, making the application of methodological approaches in personnel training particularly significant. In the modern era, the country's military pedagogical programs are designed not only to transmit theoretical knowledge but also to develop practical skills, strategic thinking, leadership qualities, and decision-making abilities. These programs combine traditions inherited from the Soviet period with international standards to ensure the effective preparation of personnel.

The application opportunities within Azerbaijan's military education system are formed along three main directions: modular training, practical and simulation-oriented preparation, and integration with international standards. Modular training programs are organized in a phased manner within military education institutions, with each module aimed at developing specific knowledge and skills (Mammadzada<sup>1</sup>, M., 2025). This approach systematically enhances the knowledge and competencies of military personnel while ensuring their strategic and tactical preparedness.

Practical-oriented training holds particular significance in the Azerbaijani context. Academic knowledge is applied through combat training, training games, and simulations. This accelerates students' adaptation to real combat and security scenarios while improving their critical thinking, decision-making, and operational response skills (Hmelo-Silver, C. E., 2004). Simulators and training games employed in the Azerbaijani Armed Forces support both individual and collective preparation and allow scenarios to be replicated under realistic operational conditions.

Integration with international standards expands the development prospects of Azerbaijan's military education. The implementation of NATO and other international military education standards, updating training programs, and familiarizing the teaching staff with international experience elevate the preparation of military pedagogical personnel to a modern level (NATO, 2023). This approach ensures not only the alignment of personnel with national security requirements but also their readiness for participation and collaboration in international operations.

Innovative methods also hold significant potential in the Azerbaijani context. Problem-based learning, e-learning platforms, and hybrid training models contribute to the development of both individual and collective skills within the military pedagogical process (Mammadzada<sup>1</sup>, M., 2025). Through these methods, students enhance their ability to solve strategic problems, adapt to real operational scenarios, and make informed decisions. For instance, virtual reality technologies and simulators allow combat scenarios to be replicated interactively, improving personnel's decision-making under risk and enhancing their ability to assess operational situations.

Furthermore, the Azerbaijani military education system provides research-oriented training opportunities for pedagogical personnel development. Universities and military academies facilitate the development of students' research skills, thereby strengthening their strategic analysis and decision-making capabilities (Ahmadov, H., 2024). At the same time, continuous professional development programs for teaching staff and international experience exchange enable the improvement of methodological approaches within the context of national security.

In conclusion, the application of methodological approaches in the Azerbaijani context ensures the development of the military pedagogical system, fosters the formation of strategic and practical skills, and promotes the integration of research-oriented and innovative training. These approaches strengthen the resilience of the national security system, optimize both tactical and strategic preparedness of personnel, and enhance the country's opportunities for international collaboration.

### **Methodological Challenges**

The application of methodological approaches in the training of military pedagogical personnel is accompanied by a number of challenges that are relevant in both national and

international contexts. The first challenge is the delayed modernization of traditional pedagogical methods. Azerbaijan's military education system has long been based on structures derived from Soviet-era training methods, yet in the modern era, these methods are poorly aligned with students' digitally oriented and technology-driven learning needs (Hmelo-Silver, C. E., 2004). Traditional teaching approaches are insufficiently effective for developing practical skills and fostering strategic thinking, making the transition to adaptive and innovative training methods in personnel preparation inevitable.

The second challenge concerns the lack of resources and technology. Virtual laboratories, simulators, and interactive training platforms play a major role in contemporary military pedagogical training; however, the availability and accessibility of these tools remain limited (Aghayev, S. O., Hashimov, E. Q., & Talibov, A. M., 2016, pp.126). As a result, students cannot adequately simulate real combat and security scenarios to develop operational skills, nor can they fully cultivate strategic decision-making and critical thinking abilities. Resource shortages also constrain the ability of teaching staff to work with innovative methods, making the implementation of new training technologies difficult.

The third challenge is the insufficiency of assessment and monitoring mechanisms. An integrative evaluation system—measuring theoretical knowledge, practical skills, psychological preparedness, and ethical behavior simultaneously—has not yet been fully established (Mammadzada<sup>2</sup>, M., 2025). This reduces the effectiveness of the training process and prevents the objective monitoring of individual and collective skill development. Modernizing the assessment system and aligning it with international standards is necessary to ensure that personnel preparedness for real operational conditions reaches an optimal level.

The fourth challenge relates to the professional training of teaching staff in the application of contemporary research-oriented and innovative methods. Effective use of new pedagogical technologies, hybrid approaches, and problem-based learning methods requires continuous professional development programs for instructors (Hmelo-Silver, C. E., 2004). Currently, however, not all teaching staff possess these competencies, which negatively affects the quality of training and the strategic preparedness of personnel.

Addressing these methodological challenges will make military pedagogical personnel training more effective and strategically oriented. This is important not only for enhancing knowledge and skills but also for strengthening the resilience of the national security system.

### **Recommendations and Development Perspectives**

To enhance the training of military pedagogical personnel within the context of national security, a series of strategic measures and development prospects are recommended. The first recommendation is the broad application of innovative and digital training technologies, including virtual laboratories, simulators, and hybrid training models, to develop students' tactical, strategic, and analytical skills. The second recommendation is the strengthening of research-oriented training, ensuring that military personnel are equipped not only with theoretical knowledge but also with research and analytical problem-solving skills.

Additionally, the continuous professional development of teaching staff holds strategic importance. It accelerates the implementation of new pedagogical methods and improves the quality of military education. The third development prospect is the integration of international standards and collaboration, meaning that the application of NATO and other international military education standards ensures that personnel are prepared for both national and international operations.

These recommendations and development prospects enhance the methodological foundations of military pedagogical personnel training, strengthen the resilience of the national security system, and improve personnel professionalism. In the future, the widespread application of digital technologies, innovative pedagogical methods, and research-oriented approaches will play

a central role in the modernization of Azerbaijan's military education system.

## Conclusion

The training of military scientific and pedagogical personnel within the context of national security requires a comprehensive and multidisciplinary scientific-process approach. The training system should be based on the integration of theoretical knowledge, practical skills, and strategic thinking, while also incorporating innovative pedagogical technologies and research-oriented methods. In the Azerbaijani context, modular training, practical and simulation-oriented preparation, as well as integration with international standards, enhance personnel competence and strengthen the resilience of the national security system.

Addressing methodological challenges, applying innovative technologies, and ensuring the professional development of teaching staff will further increase the effectiveness of military pedagogical personnel training in the future and optimize their strategic and tactical preparedness. These approaches not only ensure the preparation of personnel in alignment with the state's national security policy but also enhance the Azerbaijani Armed Forces' ability to participate in international operations and respond effectively to contemporary security challenges.

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## Competing interests

The authors declare that they have no competing interests.

## References

- Aghayev, S. O., Hashimov, E. Q., & Talibov, A. M. (2016). *Modern pedagogical technologies in military education*. Baku: Military Publishing House. [https://www.researchgate.net/publication/367188537\\_Hrbi\\_thsild\\_muasir\\_pedagoji\\_texn\\_ologiyalar\\_DRSLIK](https://www.researchgate.net/publication/367188537_Hrbi_thsild_muasir_pedagoji_texn_ologiyalar_DRSLIK)
- Ahmadov, H. (2024). Azerbaijan's education system in the context of national security. *525-ci qəzet*. <https://525.az/news/259625-azerbaycanin-tehsil-sistemi-milli-tehluksesizlik-kontekstinde>
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266.
- Mammadzada<sup>1</sup>, M. (2025). (2025). New Approaches in Military Personnel Training: A Pedagogical Evaluation of Teaching Methods. *Social Development and Security*, 15(4), 72-78. <https://doi.org/10.33445/sds.2025.15.4.7>
- Mammadzada<sup>2</sup>, M. (2025). Management of the teaching process in Azerbaijan's military educational institutions. *Metaphysics: International Journal of Philosophical and Interdisciplinary Studies*, 8(8), 70–81. <https://metafizikajurnali.az/storage/images/site/files/Metafizika-36/Metafizika.Vol.8%2CNo.8%2CSerial.36%2Ccpp.70-81.pdf>
- NATO. (2023). *Education and training policy*. [https://www.nato.int/cps/en/natohq/topics\\_82705.htm](https://www.nato.int/cps/en/natohq/topics_82705.htm)



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