Higher military education as a determinant for developing leadership qualities of future military specialists

Вища військова освіта як детермінант формування лідерських якостей у майбутніх військових фахівців

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Purpose: to give theoretical substantiation of the pedagogical conditions and model for developing leadership qualities of future military specialists within the system of higher military education.

Method: system analysis, systematization, classification and generalization of scientific and methodological literature.

Findings: within the study, we defined the organizational and pedagogical conditions for developing leadership qualities of future military specialists in the system of higher military education; on their basis, we built a model for developing military university cadets’ leadership qualities; within the structure of the model, we focused on leadership components that require a balanced and interconnected development in the training process; highlighted the system-forming factors of the development of leadership qualities of military specialists.

Future research: study the possibilities of enhancing the cadets’ leadership qualities in the course of the extracurricular activities.

Paper type: theoretical.

Key words military education, leadership, leadership qualities, future military specialist, mentoring, cadet, pedagogical conditions, model.

Mета роботи: теоретично обґрунтувати педагогічні умови та модель розвитку лідерських якостей майбутніх військових фахівців у системі вищої військової освіти.

Метод дослідження: системний аналіз, систематизація, класифікація та узагальнення науково-методичної літератури.

Результати дослідження: в ході роботи було визначено організаційно-педагогічні умови формування лідерських якостей майбутніх військових фахівців у системі вищої військової освіти, на основі яких було побудовано модель розвитку лідерських якостей курсантів військового вузу, в структурі моделі сфокусовано увагу на компонентах лідерства, що потребують збалансованого та взаємопов’язаного розвитку в процесі навчання, та виділено системоутворюючі фактори розвитку лідерських якостей військовослужбовців.

Майбутні дослідження: вивчити можливості підвищення лідерських якостей курсантів у позазаустрійській діяльності.

Тип статті: теоретичний.

Introduction

The large-scale hostilities in Ukraine, which have been going on for two years, require special leadership qualities from the military due to non-standard situations and tasks that arise. The necessity to develop leadership qualities (LQ) during war increases because of the need to deal with problems under stress, organise and manage resources, motivate and maintain morale; handle strategic and tactical operations; interact with the civilian population, ensuring security and mutual understanding. All of these factors require creating strong and effective leadership where high responsibility and quick decision-making become key points. This determines the need to advance
fundamentally new approaches to the training of future military specialists as well as the personal and professional development of higher military university cadets.

The Russian-Ukrainian military conflict has caused some changes to the system of higher military education in Ukraine to increase the efficiency of training military personnel, which involves updating educational content following the achievements of psychological, pedagogical, and military science, new progressive concepts, modern training technologies and experience in combat training of troops. Military education reveals a trend towards technologization (Yahupov, 2023; Zelnytsky et al., 2023), which is an important factor in its effective functioning, therefore, training all categories of military specialists at a qualitatively new level is impossible without using the ideas of cybernetics, the widespread introduction of modern information technologies, as well as virtual simulation of a combat situation using virtual laboratory complex (computer simulation model) (Huzyk et al., 2019: 77-78). Virtual modelling as a process of artificial reproduction of a real situation in a software-controlled environment, which can control and solve certain problems, and make appropriate decisions, has significant advantages over traditional approaches in organizing the professional training of military specialists. Using modern technology for educational goals can improve the efficiency, effectiveness, and quality of managing the military education system as a whole and ensure the relationship between training and practical activities of the Ukrainian Armed Forces under modern conditions (Kachan, 2020).

**Theoretical Background**

Researchers believe that higher military education can affect the LQ development of future military officers (Vitchenko & Osodlo, 2023; Karpenko, 2022). Military education curricula typically include courses on military strategy, tactics, command, and leadership, which are essential to a successful military career as well as applied to the civilian sector. Self-confidence, the ability to make decisions in tight and stressful situations, strategic thinking, and team building are just some of the leadership skills that can be developed within higher military education. However, there is no “universal” set of leadership qualities (Khan, et al., 2016). A group member can become a leader if he or she has the necessary qualities and skills to demonstrate in particular situations (Antonakis & Day, 2017).

Different sciences pay attention to the phenomenon of leadership. Today, management theory, sociology, psychology, and pedagogy turn to the study of various issues related to the concept of leadership. Sociologists pay attention to the role of leaders in different social groups (Kottler & Englar-Carson, 2019). Psychologists are interested in leadership as a socio-psychological phenomenon of internal group development (a process of organizing and managing a small social group) (Haslam et al., 2020). Scholars in the field of psychology mainly study the personal qualities of a leader; they consider a leader as an important component of the system of group interpersonal relationships, a demonstration of dominance-and-subordination relations (Amoretti, 2022; Didenko & Kostyuchenko, 2022; Karmanenko, 2018). Experts within the management theory interpret leadership primarily as interpersonal interaction determined by a specific situation based on the communication process and aimed at achieving a certain goal (Shepherd & Williamson, 2022). Researchers consider military officer leadership as an integrated concept that covers professional competence and mobility, the ability to quickly adapt to new conditions, navigate information flows, and optimally cope with professional and social problems (Didenko & Shumovetska, 2021). Scholars also study the phenomenon of leadership in the educational environment (Carducci et al., 2024; Lynov, 2016) and in the police (Matthew, 2016; Tyurina, 2020).

**Research question**

In general, leadership development within military education requires a comprehensive approach that includes both academic and extracurricular training, special courses, a stimulating
environment, and opportunities to solve real leadership problems aimed at developing leadership skills such as communication, conflict management, decision-making, and team motivation. It is important to note that developing leadership skills also depends on individual effort. Regardless of the education, developing leadership skills requires constant self-improvement and the use of acquired knowledge in practice. Educational institutions must offer not only academic subjects but also encourage the development of skills necessary for successful leadership. The basis for the formation of leadership qualities is teaching the principles of moral behaviour and interaction.

The particular relevance of the theoretical and methodological issues of military education, the urgent need to rethink traditional ideas about the educational process within higher military education, the need to move away from the authoritarian foundations of its organization, and the need to consider the pedagogical conditions that contribute to developing leadership qualities have determined the choice of the topic of our research.

Within the article, we attempt to give theoretical substantiation of the pedagogical conditions and model for developing the LQ of future military specialists within the system of higher military education. To achieve the set goals, we use such theoretical research methods as system analysis, systematization, classification, and generalization of scientific and methodological literature.

**Results and Discussions**

Developing leadership skills of future military officers is crucial because military service requires that military professionals make important decisions in stressful and complex situations, manage subordinates, and be able to conduct military operations. Here are some examples of stimuli for developing leadership qualities of military personnel:

- military service that often requires military officers to operate in extreme environments, such as combat or dangerous locations, which contributes to developing such leadership skills as self-confidence, the ability to make decisions under stress, and the ability to manage a team;
  - education and various types of training;
  - role models of leadership skills and behaviour;
  - teamwork since training and participating in exercises as part of joint groups helps future military personnel develop the skills of cooperation, promotes the development of team spirit and leadership qualities;
  - mentoring and support, which are quite common in various military organizations and are key factors in preparing junior military personnel for the challenges and responsibilities they will encounter in their careers; according to modern empirical studies, mentoring quickly compensates for the need for highly professional military specialists (Smirnov, 2017); mentors can conduct training and seminars on leadership, communication skills, decision making and other aspects related to leadership development. They can also provide junior military personnel with opportunities to gain practical experience and develop skills relevant to their leadership responsibilities, for example by working in a team under their supervision.

Developing cadets’ LQ requires specific pedagogical conditions. Here are some of them:

- role models and modelling, which means that teachers and leaders at various levels should be an example showing effective leadership skills through their actions and decision-making while modelling leadership behaviour types and styles helps cadets learn following other people’s examples;
- systematic training means that teachers should include in the curricula special courses and classes on leadership, where cadets receive theoretical knowledge and practical skills;
- practical exercises and simulations allow cadets to practice their leadership skills in simulated real-life situations, such as group management exercises during training;
- feedback from teachers and classmates provides cadets with constructive reflection on their leadership, which helps them understand their strengths and weaknesses and improve their skills;
- involvement in projects and events enables cadets’ participation in various activities where they can demonstrate their leadership skills and gain experience in real-life situations;
- development of communication skills so that cadets learn how to communicate effectively with other team members, and take into account their views and opinions;
- an atmosphere of support and trust is important to create an environment where cadets feel comfortable to develop their leadership skills, and where they can share their ideas and thoughts.

Thus, we understand pedagogical conditions for developing cadets’ LQ as the whole of circumstances, content, forms, techniques, and opportunities of the educational environment that are intentionally created in the process of professional training in the system of higher military education. The effectiveness of the LQ development of a future military specialist is ensured by organizational and pedagogical conditions (Fig. 1). These conditions build an educational environment that contributes to developing leadership qualities, and suggest the structure that ensures the effective development of the future officer’s LQ.

Psychological and pedagogical science has not sufficiently explored the role of students’ awareness of their “Self” in the formation of leadership potential. Psychologists who have a growing interest in the development of an instrument for personality assessment to single out primary factors that help identify those who have a high level of leadership aptitude tend to conduct surveys turning to the 16 Personality Factors Questionnaire developed by the American scientist R.B. Cattell (Cornwell & Greenidge, D, 2020).

Analysis of the survey results shows that the number of future leaders is 38.6% of the total number of respondents. However, they have rather underdeveloped intellectual, emotional, and communication qualities that contribute to the development of leadership potential. This emphasizes the need for the active development of these qualities within the educational process. This problem can be solved with pedagogical support and improvement of methods, means, and organizational forms that contribute to the identification of leadership potential, its formation, and development. Modern research has shown that effective leaders differ from other people in several characteristics, namely: motivation to lead - the leader strives to lead people and influence others; cognitive abilities - leaders can process and interpret large amounts of information; adaptability – leaders can adapt to the needs of their followers and the changing situation (Kofan & Nudel, 2016:77).

Taking into account the above, we believe that after young people enter the military university, it is necessary to carry out a comprehensive diagnosis and identify cadets who have an aptitude for leadership (based on personal and biographical data, pedagogical observation, etc.) and determine the specific type of leadership the cadet has and practical areas of activity where leadership skills can appear.
Focused pedagogical support, which may include different methods and approaches, comes next, where the one way is to provide cadets with opportunities to participate in projects where they can develop their leadership skills, interact with others, and take responsibility for results. At the same time, it is necessary to popularize and encourage responsibility, since leadership involves taking responsibility for results and actions. In addition, focused pedagogical support may include coaching and individual counselling where cadets can receive advice and guidance on developing their leadership skills. It is also important to provide opportunities for self-assessment and feedback so that cadets can monitor their progress and correct their actions. Focused pedagogical support for leadership development is an important element of the educational process as it helps cadets understand their potential as leaders and prepare for future challenges.

Having identified the organizational and pedagogical conditions, we built a model for the
To develop cadets’ LQ, the balanced and interconnected development of four components is necessary (Steadman, 2018):

- the motivation-directed component that ensures the realization of the cadet’s need to achieve the status of an informal leader of a military team to most effectively affect subordinates;
- profession-oriented component that contributes to the development of the necessary management skills of leadership behaviour, the ability to combine official authority in the sphere of professional relations with informal rights and responsibilities in the field of interpersonal interaction between members of the military team;
- the social-transformative component which enables implementing the acquired skills of leadership behaviour in particular situations of service and combat activities, choosing forms and methods of influencing subordinates that are adequate to the leadership status, and providing the necessary social and psychological climate;
- emotional-volitional component which contributes to the identification of volitional efforts in creating good emotional relationships between participants in service and combat activities necessary for the successful solution of service and combat tasks.

The structure of the model for developing leadership qualities of future military specialists contains four system-forming factors, namely:

- target factor, which acts like an impetus and includes tasks, provided they are successfully solved, can ensure the ultimate result in the functioning of the military educational system in the context of LQ development, particularly developing the system of psychological and professional knowledge, mastering techniques of managerial and creative professional activities, and building the system of values and emotional relations, which are of primary importance for a person who seeks to be a leader;
- informative factor, which ensures the implementation of the tasks, the target component stated, by collecting and further presenting a bulk of theoretical material to form the readiness for leadership at the level of theoretical understanding of leadership as a phenomenon;
- technological factor (that is an ordered sequence of interrelated actions performed from the moment the initial data appears until the required result is obtained), which, in the context of LQ, forms the readiness for leadership through educational activities of different types – academic activities, block-modular teaching/learning, quasi-professional (professional-like) education, and education based on innovative technologies;
- resulting factor, which verifies psychological and professional knowledge, skills, and abilities of leadership behavior, considers the experience of creative leadership activity, and experience of building good emotional relations among the leader and followers, which ensure the level of LQ development.

LQ development goes through four stages – ascertaining, theoretical, formative, and transformative which correlate with relevant factors, and have certain tasks and goals. The reflective component plays an important role at the end of each stage, being necessary not only for assessing their effectiveness but also for the development of the cadet’s reflection, self-analysis, and further self-improvement.
Goal: developing future military officers’ LQ

Objective: the enhancement of

- motivation-directed component ensuring the realization of the cadet’s need to achieve the status of an informal leader of a military team to most effectively affect subordinates
- profession-oriented component that contributes to the development of the necessary management skills of leadership behaviour, the ability to combine official authority in the sphere of professional relations with informal rights and responsibilities in the field of interpersonal interaction between members of the military team
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Stages of pedagogical technology for LQ development

- ascertaining
- theoretical
- forming
- transformative

Functions

Monitoring

Outcome: military officers with a high level of leadership

Prospect: implementation of theoretical proposals and practical recommendations for solving further problems of developing military university cadets’ LQ and improving their quality characteristics

Figure 2 – Model for developing leadership qualities of future military specialists
Unfortunately, many of the problematic issues of using information technologies and tools for simulation modelling in the training of military specialists remain unsolved. Building the information and telecommunications network for the military education system can improve the efficiency, effectiveness, and quality of managing the military education system as a whole, create and use a single information educational and scientific resource, ensure the relationship between training and practical activities of the Ukrainian Armed Forces under modern conditions (Kachan, 2020). Thus, to transfer to the above pedagogical conditions, it is necessary to use the latest information and communication technologies (ICT) within military education. To form these pedagogical conditions, it is reasonable to address simulation modelling in the process of professional training of cadets, particularly, using NATO standards and methods adapted for the Ukrainian Armed Forces for training future officers and developing their leadership qualities; maximum approximation to real combat situations by using specific scenarios that involve repetition and correction of actions within the professional military area; developing reference materials to train teachers and instructors and psychological support aimed at making cadets aware of the role of information and communication technologies to maintain manpower in real combat situations, developing the leadership qualities of future military specialists, and advancing creative thinking (Kos, 2018). The ICT development gives new opportunities for military education, such as the use of virtual and augmented reality for simulation training, the use of artificial intelligence for analysing large volumes of data and decision-making, as well as the development of special software tools for military needs. All this helps improve the quality of military education and upgrade the skills of future military leaders (including their leadership skills), which is an important factor in ensuring national security. The use of ICT in military education allows the military to gain access to a wide range of information, helps increase the responsiveness and determination of decision-making, and also improves the coordination and efficiency of the actions of military units.

The model we built enables determining the structure of activity and detailing the organizational and pedagogical conditions for developing the future officer’s LQ in the process of training within the environment of higher military education (Fig.3).

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Figure 3 – Organizational and pedagogical conditions for LQ development
The proposed model is implemented in a modular training technology, which contributes to developing military university cadets’ LQ. A module corresponds to a specific topic or section, and can also combine the content of several modules. Combining subject and interdisciplinary knowledge in a module enables the integration of the knowledge acquired by cadets into the system of skills and abilities, which makes it possible to use them comprehensively. The consistency, systematicity, and completeness of the knowledge achieved in this way create the necessary prerequisites for their operational use in extreme situations, which helps the officer maintain their status as a leader in the professional area, and while performing combat activities.

Conclusions

The pedagogical technology we have modelled enables the systematization of the educational work of the university and directs it to the development of military specialists with a high level of leadership qualities, who can demonstrate high standards of professionalism, ethics, and morality, who can inspire, motivate, and effectively manage their subordinates under difficult and stressful conditions.

But we also share the opinion that to develop cadets' LQ in the context of higher military education, it is necessary to involve cadets in extracurricular activities since leadership abilities and skills can be developed not only within the process of educational activities (Aleksyeyenko-Lemovska, 2023: 21). Educational work in the system of higher military education is based on the historically established traditions of world civilization, where the main principles are the universality of the educational space, the combination of universal values with national and regional traditions, respect for work and professionalism, the prevalence of the spiritual over the material, moral, aesthetic, education. These points will determine and direct our further research.

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Competing interests

The authors declare that they have no competing interests.

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Список використаних джерел

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