

HISTORICAL ASPECTS OF THE DEVELOPMENT OF ORGANIZATIONAL LEARNING WITHIN THE NORTH ATLANTIC ALLIANCE (1949–2024)

The article examines the historical aspects of the development of organizational learning within the North Atlantic Alliance (1949–2024). The study focuses on a systematic examination of the creation and operation of the Joint Lessons Learned System (JLLS), which defines the form and essence of organizational learning in NATO throughout the specified chronological period.

Historical analysis of the JLLS is conducted along four features (Lessons Learned (LL) Structure, LL Process, LL Training, and LL Tools), corresponding to the key components of NATO's LL Capability. Based on the research results, three main stages of development of organizational learning within NATO are identified: 1) Formation (1949–2002); 2) Enhancement of LL Capability (2003–2010); 3) Modernization (2011–2020); 4) Evolution based on Digital Transformation (2021–present).

The military-historical study is relevant in the context of the urgent need for further improvement of organizational learning in the Armed Forces of Ukraine to counter Russian armed aggression against our state and ensure interoperability with the North Atlantic Alliance.

Keywords: organizational learning, lessons learned system, NATO.

Introduction: The results of the historical analysis of wars and armed conflicts in the 20th and 21st centuries indicate that the effectiveness of the training and employment of the armed forces largely depends on their capabilities to adapt to constantly changing conditions quickly and needs at the strategic, operational, and tactical levels. These capabilities directly depend on the effectiveness of organizational learning which is one of the key driving forces of the evolutionary development of military affairs.

The term 'organizational learning' was first used in 1963 by American scholars Richard Cyert and James March, who initiated the development of the fundamental principles of organizational learning (*Cyert & March 1963*). Afterward, in the 1970s and 1980s, there was the first significant advancement in theories within this scientific field. In 1977, Chris Argyris published the first scientific work dedicated to organizational learning (*Argyris 1977, Shipton 2004*). Over time, two

Пашук Юрій Михайлович, кандидат технічних наук, доцент, доцент кафедри іноземних мов та військового перекладу Національної академії сухопутних військ імені гетьмана Петра Сагайдачного, м. Львів.

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scholarly schools emerged, which developed three classical theories that employed diverse OL models and methodologies (*Leavitt 2011, p. 7*): “1) experiential learning theory from the ‘cognitive’ school; 2) adaptive and generative learning theory from the ‘cognitive’ school; and 3) assimilation theory from the ‘behavioural’ school”.

Accordingly, today there is a variety of definitions of ‘OL’ proposed by different scientists (*Basten & Haamann 2018; Leavitt 2011; Shipton 2004*). In the military context ‘organizational learning’ can be identified as creation of lessons learned (LL) structure, process, and tools and their systematic employment within a military organization (e.g., armed forces, etc.) to enhance its collective LL ability to analyse acquired knowledge and experiences, disseminate, and transform them into remedial actions aimed at improving organizational activities, doctrines, guidelines, and procedures (*Basten & Haamann 2018; Chiva, Ghauri & Alegre 2014; Dyson 2019; Leavitt 2011; Marcus 2015, 2017; Serena 2011*). The primary goal of OL is “to minimize the risks of repeating mistakes and increase the chances of achieving success and victories in the future” (*Dyson 2019; Marcus 2015, 2017; NATO 2022*).

From the historical perspective, it is commonly believed that the practical application of basic OL principles preceded corresponding theoretical research and was initiated in the armed forces of Britain and Germany during World War I (*Dyson 2019, p.3; Foley 2014, pp.287-90; Mains & Ad Ariely 2012, p.166*).). During the War, the British and German armies utilized various OL methods, techniques, and practices. However, their distinct military cultures influenced how lessons were absorbed (*Foley 2014*). The British army leaned towards informal and semiformal learning approaches, while the German army, with its contrasting organizational culture, heavily relied on formal learning procedures (*Foley 2014*).

During World War II and the onset of the Cold War, there was further significant development in the practices of organizational learning. In this context, it is worth highlighting the US Armed Forces (US AF), which in the 1970s and 1980s, particularly during the Vietnam War (1955-1975) and several contingency operations (Cambodia, 1975; Iran, 1980; and Grenada, 1983), the After-Action Review (AAR), one of the new OL techniques, was successfully implemented (*Landry, p. 5; Waliński 2016, p. 98*). This allowed for substantial improvements in rewriting military doctrines and making changes to training procedures in the US AF (*Landry, p. 5; Waliński 2016, p. 98*).

A notable instance of the symbiosis between the OL theory and practice concerns the use of formal learning procedures in the US Army in 1984 to study the lessons of the “Urgent Fury” military operation. This methodology was initially utilized by the Army Studies Group led by US Colonel (today retired General) Wesley Clark. The following year, the Centre for Army Lessons Learned (CALL) under the Combined Arms Training Activity at Fort Leavenworth (Kansas) was created (*US 2011; Landry 1989, p. 165; Waliński 2016, p. 98*). The primary activities of the Centre included collecting and analysing observations, disseminating, and archiving the lessons learned within the US Army (*Landry 1989, p. 165-167*).

In the late 1980s the successful employment of the AAR technique as well as the high efficiency of the CALL laid the groundwork for the establishment of the US Lessons Learned System (LLS) (*Dixon 2011, p.227; Landry 1989, p. 147*). The information core of the newly created System was a comprehensive LL database, created in 1985. (*Landry 1989, p. 170*). One of the initial significant achievements of the US LLS was the substantial improvement of doctrinal documents across all branches of the US AF, stemming from the employment of the American troops in Korea and Vietnam (*Dixon 2011; Landry 1989*).

The term ‘US LLS’ was used “as a convention to describe the set of officially sanctioned joint activities in the US AF which identify, analyse, and resolve issues arising from military exercises and operations...” (*Landry 1989, p. 147*). This System, which has constantly evolved, as well as other similar national lessons learned systems within the armed forces of NATO members, became a model for the creation of the NATO Joint Lessons Learned System (JLLS) in the early 2000s (*Dixon 2011, p. 227; Waliński 2016, p. 98*).

Today, in the course of enduring full-scale aggression Russia against Ukraine, one of the key tasks for the Armed Forces of Ukraine (UAF) is the further improvement of national LLS, which began its functioning in January 2019 (*Dyson & Pashchuk 2022, p. 7*). The main purpose of the UAF LLS is to improve the effectiveness of training and employment of the Ukrainian troops (forces) (*Doctrine 2020, p. 11-12*). This System was created in the UAF based on the previous System of Lessons Analysis and Dissemination (December 1991–December 2018) using the key theoretical and practical principles of organizational learning, which were applied in the North Atlantic Alliance (*Dyson & Pashchuk 2022, p. 7*). This approach makes it possible for the UAF to implement the advanced achievements of the

NATO countries to develop effective organizational learning within the Ukrainian troops, and to ensure the interoperability of the forces of Ukraine and Alliance member states [3, p. 41]. Therefore, the study of historical aspects of the development of organizational learning in NATO is a reasonable scientific and practical task, the need for which is also determined by insufficient attention of the Ukrainian scientists to research the above issue.

The paper aims to complete the military-historical study of organizational learning within the North Atlantic Alliance (1949–2024) and use the research results to develop proposals to improve the Lessons Learned System in the Armed Forces of Ukraine.

The main part of the article. This year marks the 75th anniversary of the establishment of NATO. Considering modern conceptual definitions of organizational learning, from the inception of NATO until the late 1970s, there was virtually no established allied LL system within the Alliance.

According to the official history of this international organization, it is claimed that one of the first coordinating LL bodies within NATO was the Permanent Maritime Analysis Team (PAT) based at Northwood (*JALLC 2015, JALLC 2022*). The PAT was established in 1978 and served as a principal component of NATO's Maritime Command, focusing on maritime security and intelligence analysis in NATO maritime operations. It also played a crucial role in collecting, analysing, and disseminating lessons learned from maritime and land exercises as well as operations conducted by NATO member states and partner organizations (*JALLC 2015, JALLC 2022*). For instance, "the PAT, suitably augmented, formed the core of the team tasked with analysis of the NATO IFOR and SFOR operations in the Former Yugoslavia" (*JALLC 2015*).

In 1997 after acknowledging the lack of the standing joint OL capabilities, the concept of creating the NATO JLLS was evolved. The central focus of the developed doctrine was the establishment of the Joint Analysis and Lessons Learned Centre (JALLC) in Portugal as the most efficient location for NATO's LL Capability (*JALLC 2022*).

The first International Military Staff was submitted to the JALLC in January 2000 and approved by the Military Committee on 07 December 2001 (*JALLC 2015, JALLC 2022*). Finally, on 02 May 2002, the North Atlantic Council approved the activation of the JALLC as a NATO Military Body from 02 September 2002 and the simultaneous de-activation of the PAT (*JALLC 2022*). The Centre

“was originally conceived to primarily analyse exercises, changes to the NATO environment and growing NATO involvement in operations resulted in the JALLC’s activities shifting to analysis of operations and major NATO Response Force exercises” (*JALLC 2015, JALLC 2022*). This event is considered as the establishment of the NATO JLLS and the beginning of its operation (*Dixon 2011; Waliński 2016*).

The NATO JLLS is a form of organizational learning operated within the North Atlantic Alliance and can be defined as a set of formal LL methods, techniques, and approaches, as well as corresponding organizational LL Structure and Tools used to carry out standardized LL Process. The purpose of this Process is “to learn efficiently from experience and provide validated justifications for amending the existing way of doing things...” (*Directive 2018; NATO 2019*). At the same time, the JLLS is the comprehensive integration of the national LL systems of the Alliance member countries, based on the employment of commonly accepted LL structures, concepts, procedures, and tools, including the NATO Lessons Learned Portal (NLPP).

A key mission of the JLLS is “to support Alliance-wide implementation and sustainment of NATO’s LL policy through monitoring and supervising the NATO LL process within the NATO Command Structure and other NATO bodies” (*JALLC 2022*). Since this System comprises four key elements (LL Structure; LL Process; LL training; and LL tools (*NATO 2022, p. 9*), the research has been conducted in accordance with these four aspects of organizational learning.

Lessons Learned Structure. One of the main principles of the OL within NATO concerns everyone’s responsibility to ensure the effectiveness of the LL Process. To organize such a process the formal robust LL Structure has been created, which in particular includes the following LL bodies (*Directive 2018; JALLC 2022; NATO 2022*):

1) Lessons Learned Staff Officers (LLSOs). The LLSOs are responsible for promoting and supporting the execution of the NATO LL Process throughout their organizations.

2) Lessons Learned Points of Contact (LL POCs). The LL POCs assist the LLSOs in implementing the NATO LL Capability.

3) Local NLLP Managers.

4) Bi-SC LL Steering Group. The Group is a collective body that supervises and guides the execution and sustainment of the NATO LL Policy.

5) Cross-functional LL Working Groups and Boards. The Groups/Boards coordinate and facilitate all LL-related issues.

Furthermore, within the LL Structure, there is an integrated network of thirty NATO Centres of Excellence (COEs) (*NATO 2024*). The concept of establishing and operating the COEs was presented in NATO's guiding documents in 2003 (*NATO 2003*) and 2004 (*NATO 2004*). The first COE was officially accredited on June 1, 2005. The Centres are located in various NATO countries. The COEs have different LL specializations to provide subject matter expertise assisting in the analysis of observed issues within the NATO LL Process (*NATO 2022*). The Centres of Excellence “train and educate leaders and specialists from NATO member and partner countries, assist in doctrine development, identify lessons learned, improve interoperability and capabilities, and test and validate concepts through experimentation” (*NATO 2024*).

NATO's lead agent for lessons learned and the coordinating organization for the aforementioned LL bodies is the JALLC (Monsanto, Portugal). The JALLC was formally opened on December 6, 2002, and declared fully operational on March 28, 2006 (*JALLC 2015, JALLC 2022*).

Today the Centre is a part of Allied Command Transformation and directly reports to the Joint Forces Development Department (*JALLC 2022*). The main JALLC's purpose is to provide lessons learned analysis, managing the NLLP and its content, sharing of lessons among Allies as well as with non-NATO nations, and providing analysis and lessons learned support to exercises and operations (*JALLC 2015, JALLC 2022, NATO 2022*). For instance, “since 2003, the JALLC has produced over 200 Joint Analysis reports since its inception on a wide variety of topics: from Ballistic Missile Defence to Joint Logistics Support, from Cultural Property Protection to Counter– and Anti-Corruption” (*JALLC 2022, p. 16*). Also, the Centre is involved in a wide range of the following activities (*JALLC 2022, NATO 2022*):

- a) Monitoring the implementation of Alliance LL policy at all levels.
- b) Providing consultations and direct assistance to NATO member countries and partners to enhance their LL capabilities.
- c) Participation in developing and improving NATO concepts, doctrines, and other guiding documents.
- d) Development of LL publications, including “The NATO Lessons Learned Handbook” (First Edition in October 2010 and Fourth Edition in June 2022) and “The Joint Analysis Handbook” (First Edition in 2005).

e) Organization of stationary and mobile NATO LL training courses. For instance, «in 2010, the JALLC established the Advisory and Training Team (ATT) to provide mobile LL training, to develop and enhance the NATO LL Capability across the Alliance and among Partners» (*JALLC 2022, p. 8*).

f) Organization of LL Events, such as conferences, seminars, and workshops, including annual NATO LL Conferences (the first LL Conference was held in 2003), etc.

Additionally, since 14 February 2023, the JALLC has conducted two types of Innovation (*JALLC 2024, p. 32*):

1) Open Innovation which mainly includes attending different NATO activities towards improving the NATO LL capability.

2) Directed Innovation which is conducted mainly concerning the development of a new NATO LL Toolset (NLLT).

It is important to note another significant aspect of JALLC's activities, which relates to the assistance provided by the Centre to the UAF in enhancing their Lessons Learned Capability, enabling them to effectively learn from the Ruso-Ukrainian War experience. The JALLC provided support to the Ukrainian Lessons Learned community in many ways, including:

a) Facilitating the creation and development of the UAF LLS.

b) Organizing the mobile LL courses by ATT in Ukraine (e.g. on 3–5 July 2018 in Kyiv and on 18–20 May 2022 in Lviv) and LL training of the Ukrainian LLSOs and LLPOCs at the stationary NATO LL courses.

Since Russia's full-scale invasion in February 2022, the Centre continued to support Ukraine's Lessons Learned efforts, primarily in assisting both NATO's and Ukraine's LL Process regarding the war against Ukraine that is «such a laboratory, one in which every military across the globe is studying to learn lessons that will impact on military plans and technologies for future conflicts» (*JALLC 2023, p.53*). For example, in 2022 the JALLC initiated (*JALLC 2023, p 53-56*):

«Creation of a Ukraine Hotspot in the NLLP to upload related war observations.

Compilation of many routine reports providing an analysis of the NLLP content.

Development of, and contribution to, several reports on a range of focused areas for customers spanning the political-strategic-to-tactical spectrum.

Providing training and demonstrations to representatives of the Ukrainian Ministry of Defence to help support the development of the UAF Lessons Learned Portal».

Lessons Learned Process

The Joint Lessons Learned System is based on the standardized LL Process, which was constantly improved. For example, in 2010 the LL Process was defined as “a procedure for deliberately staffing observations arising from an activity until a lesson learned is reached” and encompasses three key stages (Figure 1) (*NATO 2010, p. 2-10*):

1. ‘Identification’ occurs during the Observation to LI part of the process. 2. ‘Action’ to change existing ways of doing things based on the learning. 3. ‘Institutionalization’ occurs during the Lesson Identified (LI) to the Lesson Learned. Information generated during the LL Process can be shared at any time.

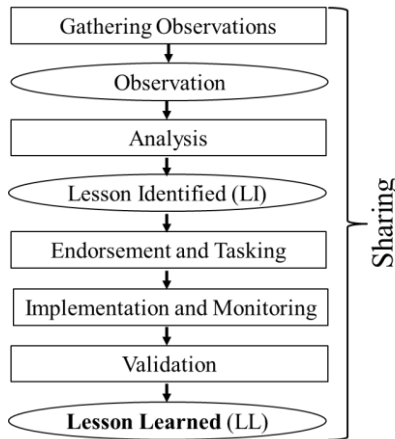


Figure 1: The NATO LL process (2010)

The last (fourth) edition of the NATO LL Handbook (2022) describes the LL Process as “a part of a formal approach to organizational learning that deliberately processes observed issues arising from an activity until either a LL is reached, or the lesson is rejected/noted for various reasons” (*NATO 2022, p. 17*). Figure 2 illustrates the NATO LL Process, which involves two main phases (*NATO 2022, p. 18*): 1. Analysis (LI is a main product); 2. Implementation (LL is a final result). Accordingly, these phases are divided into six stages: 1.1) Plan, 1.2) Observe, 1.3) Analyse; 2.1) Decide, 2.2) Implement and validate, and 2.3) Disseminate.

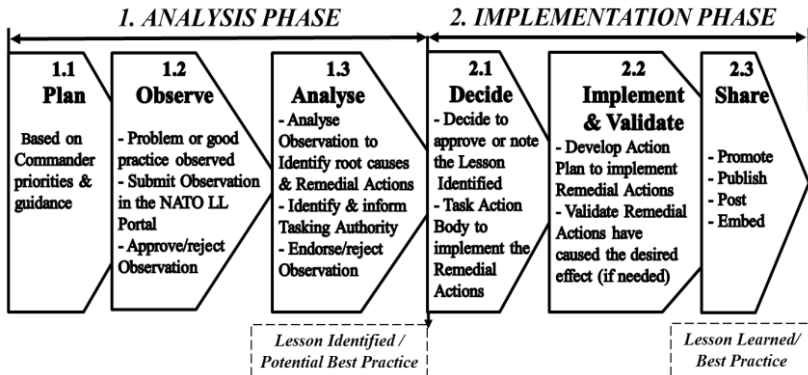


Figure 2: The NATO LL process (2022)

Lessons Learned Training

Lessons Learned Training is one of the top priority issues within NATO. “The training the JALLC provides is key to the success of the NATO LL Capability” (JALLC 2022, p. 12). All NATO personnel at the HQ level are required to receive LL Training (Directive 2018). Primarily, such training is organized within the network of six NATO LL Courses (JALLC 2022, p. 13, NATO 2022):

1) JALLC Analyst Training Course. It is a five-day course, held twice a year at the JALLC’s facilities in Lisbon, Portugal.

2) NATO Lessons Learned Staff Officer Course. This course is facilitated by the Swedish Armed Forces International Centre (Kungsängen, Sweden) and was first held on 15-19 March 2010 for 100 students.

3) NATO Lessons Learned Online Course. The course is developed by the JALLC and conducted to the LL POCs’ needs.

4) NATO Lessons Learned Management Course. This course aims to prepare participants for NATO LLSO duties.

5) Local NATO Lessons Learned Portal Management Course. This course is intended to increase awareness and use of the NLLP and to provide participants with the needed knowledge and technical skills.

6) Analytical Writing Course. Its purpose is to guide the writing of analytical documents.

In addition to the above courses, various NATO seminars, scientific conferences, workshops, and meetings are conducted to provide the needed LL knowledge, skills and mindset to NATO commanders, leadership staff and LL individuals.

Lessons Learned Tools. The Lessons Learned Tools are a very important component of the NATO LL Capability that facilitates gathering, storage, archiving, staffing, tracking, and disseminating the vast majority of circulated LL information within the Alliance (*NATO 2022, p. 14*).

As of today, a key, primary NATO LL Tool is still the NATO Lessons Learned Portal (NLPP). The NLLP was established in 2010 and in 2013 it replaced the NATO Lessons Learned Database, which has been used since 2005 (*JALLC 2015, p. 33*). The Portal is “NATO’s centralized hub for all NATO LL-related information, a key provider of LL-affiliated analysis within NATO” (*JALLC 2022; NATO 2022*). The NLLP facilitates advanced capability for collecting observation data and its analysis, sharing of lessons learned and best practices, monitoring and managing the LL Process execution, providing reliable access for authorized users to both open and classified LL information; and hosts more than twenty LL forums (*JALLC 2022*).

Additionally, NATO applies other various alternative LL Tools including the LL guiding documents, LL analysis reports, LI Lists, LI Action Plans, After Action Reviews as well as different printed LL publications (e.g. handbooks, guidelines, bulletins, newsletters, memos, etc.) (*NATO 2022*). Nowadays, among effective LL Tools, an important role is played by Online Resources, for example, JALLC Website (www.jallc.nato.int), JALLC Information Videos on YouTube page (<https://www.youtube.com/user/jallcnato>), JALLC’s Facebook page (<https://www.facebook.com/NATOJALLC>) (*JALLC 2022, p. 17*).

A permanent NATO focus on the development of organizational learning involves extensive implementation of scientific innovations and exploiting new technologies within the NATO LL Process. For instance, the NLLP software was constantly updated, and the most significant Portal remodelling was launched in 2017 and 2021 (*JALLC 2019*). Today’s special attention in the NATO LL domain is given to the implementation of Emerging and Disruptive Technologies, including data science and artificial intelligence (AI) (*JALLC 2019*).

Aiming for further enhancement of NATO LL Capability, in 2018 the Plan for the replacement of the LL Portal with the NATO LL Toolset (NLLT) using AI by 2025 was developed. The main purpose of the NLLT is to accelerate the processing of the continuously growing volume of LL data and provide comprehensive assistance to LL analysts. The Toolset will include powerful databases, modern database management systems, and AI technologies to ensure fast, interactive, distributed, and secure users’ access to the required LL information.

The creation of the NLLT was based on the work of a special LL team, which included 23 LL experts and worked for 9 months. The assigned team investigated the LL reporting documents (over 450) to determine their further usability and explored using AI systems for preliminary validation of observation reports, categorization, and archiving of LL information.

In 2021 a new NATO Lessons Learned Capability Improvement Roadmap (2021–2025) defined the framework of activities to develop the NLLT (*JALLC 2023, p. 28*). Additionally, for the implementation of artificial intelligence technologies within the LL Process, a NATO AI Strategy was developed in 2021, followed by a Digital Transformation Vision, an Implementation Strategy on Emerging and Disruptive Technologies, and the NATO 2030 Agenda (*JALLC 2023, p. 98*).

A vivid example of the increasing use of AI was an experiment conducted by the JALLC in 2021 for data collection based on interviews of the NATO staff provided by an AI voice-bot tool (*JALLC 2023, p. 9*). Besides, the JALLC already utilized analytical software MAXQDA to help NATO LL analysts process input information. In 2023 the MAXQDA was being tested with an AI add-on to summarizing source material. Additionally, generative AI like ChatGPT and Canva is being trialled for potential integration with MAXQDA (*JALLC 2023, p. 12*).

Analysis of the JLLS history reveals that, like any complex social, information, and technical system, it has faced several challenges. In addition to the four key components of the NATO LL Capability (Structure, Process, Training, Tools) discussed above, the foundation elements of Mindset and Leadership are equally important and critical for effective organizational learning (*NATO 2022*).

Based on the above material, the following four stages of OL development within NATO can be distinguished:

1) Formation (1949–2002). During this timeframe, the foundations of the Joint Lessons Learned System were established. The JLLS represents the formal organizational learning within NATO (2002–present). A key moment in the establishment of the JLLS was the creation of the Joint Analysis and Lessons Learned Centre on 02 September 2002.

2) Enhancement of LL Capability (2003–2010). Throughout this period the key elements of the NATO LL Capability were identified and improved. A robust LL Structure was formed; lessons learned procedures within the LL Process were developed, tested, and launched; the NLLP was created. In this context, the key events were:

2003 – the first LL Conference.

2005 – the First Edition of “The Joint Analysis Handbook”.

2006 – the JALLC declared fully operational; the Second Edition of “The Joint Analysis Handbook”.

2007 – the Third Edition of “The Joint Analysis Handbook”.

2010 – the establishment of the NLLP; the First Edition of “The NATO Lessons Learned Handbook”; the creation of the ATT at the JALLC; the first NATO LLSO Course.

3) Modernization (2011–2020). During this stage, there was further enhancement and modernization of all key elements of the NATO LL Capability and the following significant events took place:

2011 – the Second Edition of “The NATO Lessons Learned Handbook”.

2013 – the NLLP replaced the NATO Lessons Learned Database.

2016 – the Third Edition of “The NATO Lessons Learned Handbook” and the Fourth Edition of “The Joint Analysis Handbook”.

2017 – the first major update of the NLLP software.

2018 – Issue of Bi-SC Directive 080-006 on Lessons Learned; Plan for replacement of the LL Portal with the NLLT using AI by 2025; the first visit of the ATT in Kyiv to provide LL training for the Ukrainian personnel.

4) Evolution based on Digital Transformation (2021–present). This phase focuses on Digital Transformation, and in particular on the use of Artificial Intelligence.

2021 – the second major update of the NLLP software; a new NATO Lessons Learned Capability Improvement Roadmap (2021–2025) to develop the NLLT; the first experiment with interviews of the NATO staff provided by an AI voice-bot tool.

2022 – the Fourth Edition of “The NATO Lessons Learned Handbook”; the beginning of unprecedented assistance to the UAF, including conducting a mobile LL course in Lviv and establishment of a Ukraine Hotspot in the NLLP.

2023 – the JALLC started two types of Innovation (Open Innovation and Directed Innovation); the analytical software MAXQDA was being tested with an AI add-on to summarize source material.

Conclusions. For 75 years NATO has been successfully developed primarily aiming to protect its members against any aggression. Over the last 22 years, one of the main factors driving the impressive transformation and modernization of NATO has been the efficient operation of the Joint Lessons Learned System, which is based on the continuous development of organizational learning capabilities within the Alliance.

The study has significant practical importance for the Armed Forces of Ukraine. In this context, it is important to consider Ukraine's priority course towards NATO membership and the ongoing formation of the UAF Lessons Learned System, primarily based on the theoretical-methodological principles and best practices of organizational learning within NATO.

References

- Argyris C. (1977). Organizational learning and management information systems. *Accounting, Organizations, and Society*. Volume 2, Issue 2, P. 113-11 – 123.
- Basten D. and Haamann T. (2018) Approaches for Organizational Learning: A Literature Review. *SAGE Open*, 8, Article ID: 2158244018794224. <https://doi.org/10.1177/2158244018794224>.
- Cyert R., March J. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs. NJ: Prentice-Hall, 1963. 332 p.
- Chiva R., Ghauri P., and Alegre J. (2014). Organizational learning, innovation, and internationalization: A complex system model. *British Journal of Management*, 25, P. 687 – 705.
- Directive 2018. Two Strategic Command's (Bi-SC) Directive 080-006. Lessons Learned. 23 February 2018, NATO Unclassified. 25 p.
- Dixon N. (2011). A Model Lessons Learned System – The US Army. 2011 Best Practices for Government Libraries, P. 227 –231. URL: http://www.lexisnexis.com/tsg/gov/best_practices_2011.pdf.
- Dyson T. (2019). *Organizational Learning and the Modern Army. A New Model for Lessons-Learned Processes*. 1st Edition. London: Routledge, 2019. 276 p.
- Dyson T. and Pashchuk Y. (2022). Organizational learning during the Donbas War: the development of Ukrainian Armed Forces lessons-learned processes. *Defence Studies*. Volume 22, 2022 – Issue 2: P. 141 – 167. <https://doi.org/10.1080/14702436.2022.2037427>.
- Foley R. (2014). *Dumb donkeys or cunning foxes? Learning in the British and German Armies during the Great War*. *International Affairs* 90 (2), P. 279 – 298.
- JALLC 2015. Closing the Loop. The Lessons Learned Capability in Support of NATO Transformation. NATO Joint Analysis and Lessons Learned Centre, 2015.
- JALLC 2017. 15 Years of the JALLC – NATO. Lisbon: NATO Joint Analysis and Lessons Learned Centre, 2017. 160 p.
- JALLC 2019. *NATO LL Conference 2019 Magazine*. 14-16 Oct 2019. URL: https://www.jallc.nato.int/application/files/5616/0260/2350/20191220_NLLC19_Magazine.pdf.
- JALLC 2022. Joint Analysis and Lessons Learned Centre. Lisbon: NATO Joint Analysis and Lessons Learned Centre, 2022. URL: https://www.jallc.nato.int/application/files/4316/1469/2979/NEW_JALLC_Brochure.pdf
- JALLC 2023. 2023 Special Digital Transformation Edition. The JALLC Explorer. 07-11-2023, 76 p.
- Landry A. (1989). *The Joint Lessons Learned System and Interoperability*. A thesis presented to the Faculty of the U.S. Army Command and General Staff College, 1989. 222 p.
- Leavitt C. (2011). *A Comparative Analysis of Three Unique Theories of Organizational Learning*. Institute of Education Sciences. Sept 14, 2011. <https://files.eric.ed.gov/fulltext/ED523990.pdf>.

Mains S. and Ad Ariely G. (2012). *Learning while fighting: operational knowledge management that makes a difference*. Prism 2 (3). P. 165 – 176.

Marcus R. (2015). Military innovation and tactical adaptation in the Israel-Hizballah conflict: the institutionalization of lesson-learning in the IDF. Journal of Strategic Studies 38 (4). P. 500 – 528.

Marcus R. (2017). Learning under fire: Israel's improvised military adaptation to Hamas tunnel warfare. Journal of Strategic Studies 1-27.

NATO 2003. Military Command Concept for Centres of Excellence. MCM-236-03. 04 Dec 2003.

NATO 2004. NATO COE Accreditation Criteria. NATO Directive IMSM-0416-04. 2004.

NATO 2010. The Lessons Learned Handbook. Joint Analysis and Lessons Learned Centre. Lisbon, Portugal. First Edition, October 2010. 55 p.

NATO 2019. Allied joint doctrine for the conduct of operations. NATO Standard AJP-3. Edition C. Version 1. 2019. 164 p.

NATO 2022. The NATO Lessons Learned Handbook. NATO Joint Analysis and Lessons Learned Centre. Fourth Edition. June 2022. 59 p.

NATO 2024. NATO Centres of Excellence. NATO Allied Command Transformation. URL: <https://www.act.nato.int/centres-of-excellence>.

Serena C. (2011). *A revolution in military adaptation: the US Army in the Iraq War*. Washington: Georgetown University Press.

Shipton H. (2004). *Organizational learning: reality or myth?* Aston Business School Research Institute.

US 2011. Establishing a Lessons Learned Program. CALL, June 2011. 96 p. Retrieved from: <https://usacac.army.mil/sites/default/files/publications/11-33.pdf>.

Waliński Z. (2016). The Role of a Commander in Military Lessons Learned Systems. March 2016, Journal of Corporate Responsibility and Leadership 2(1). P. 95 –106. <https://doi.org/10.12775/JCRL.2015.006>.

Пашук Ю.М.

Історичні аспекти розвитку організаційного вивчення і впровадження досвіду в Північноатлантичному Альянсі (1949 – 2024)

У статті розглянуто історичні аспекти розвитку організаційного вивчення і впровадження досвіду (ОВВД) в Північноатлантичному Альянсі (1949 – 2024). Дослідження сфокусовано на консеквентному вивченні основ створення та функціонування Об'єднаної системи вивчення і впровадження досвіду, яка визначає форму та сутність ОВВД НАТО протягом вказаного хронологічного періоду.

Історичний аналіз зазначеної Системи проведено за чотирма напрямками (структура, процес, підготовка особового складу та засоби), що відповідають основним компонентам спроможностей ОВВД Альянсу. За результатами дослідження запропоновано розрізнити чотири ключові етапи розвитку ОВВД в НАТО: 1) формування (1949 – 2002); 2) вдосконалення спроможностей ОВВД (2003 – 2010); 3) модернізація (2011 – 2020); 4) еволюція на основі цифрової трансформації (2021 – по теперішній час).

Це військово-історичне дослідження є актуальним у контексті нагальної потреби подальшого удосконалення ОВВД у Збройних Силах України з метою відсічі російській збройній агресії проти нашої держави та забезпечення взаємосумісності з Північноатлантичним Альянсом.

Ключові слова: організаційне вивчення і впровадження досвіду, система вивчення і впровадження досвіду, НАТО