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MILITARY-HISTORICAL ANALYSIS OF IMPLEMENTATION OF THE LESSONS LEARNED PROCESS ACCORDING TO NATO STANDARDS IN THE ARMED FORCES OF UKRAINE (2019–2024)

This article examines the historical aspects of implementation of the standardized Lessons Learned process in the Armed Forces of Ukraine (2019–2024) in agreement with NATO requirements and Ukraine's path to full Euro-Atlantic integration. The introduction of this process was regulated by the appropriate Ukrainian guiding documents and carried out within forming a prospective Lessons Learned System (January 2019–present), considering the basic theoretical and practical achievements of the North Atlantic Alliance in the organizational learning domain to ensure the interoperability of national and coalition command and control systems.

The conducted military-historical analysis of implementing the formal standardized Lessons Learned process in the Ukrainian Armed Forces allows to identify both positive outcomes and challenges in its performance, as well as conclude certain discrepancies in its adoption compared to the Alliance and a need to improve its effectiveness to develop Ukraine's defense capabilities further.

Based on the research results, a comprehensive systematic approach to solving the outlined problems is proposed, taking into account the challenges of the russian-Ukrainian War, world trends in the Lessons Learning theories and practices, as well as in the context of the further development of military cooperation with the Alliance and increasing operational interoperability with the Armed Forces of the NATO members and partners.

Keywords: *Lessons Learned process, Armed Forces of Ukraine, NATO, Euro-Atlantic integration, military cooperation.*

Problem Statement. It is undeniable that organizational learning in the military sphere is an effective tool that can enhance the efficiency of training and employment of armed forces, especially in wartime. Organizational (military) learning can be defined as the creation and systematic application of key lessons learned (LL) elements (structure, process, tools, and training) to enhance the collective capability of the military organizations to obtain and analyze experiences, disseminate and transform them into remedial actions aimed at minimizing the risk of repeating mistakes and increasing the chances of success and victories in the future (Basten, D. & Haamann, T. 2018; Dyson, T. 2019; Leavitt, C. 2011; Marcus, R. 2015; NATO 2022).

From December 1991 to the present, military learning in the Ukrainian Armed Forces (UAF) was carried out in the form of two consecutive Systems (Dyson, T. & Pashchuk, Y. 2022):

1) The System of Lessons Analysis and Dissemination (SLAD: December 1991–December 2018). It was inherited from the Soviet Union and went through three main phases: "Stagnation" (December 1991–May 2013); "Reformation" (May 2013–April 2014); and "Adaptation" (April 2014–December 2018).

2) The Lessons Learned System (LLS: January 2019–present). This System is based on the SLAD and formed using NATO's advanced theoretical and practical achievements in organizational learning. Thus, in mid-2020, the UAF began implementing a standardized NATO lessons learned process (LLP) (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018) that became a cornerstone

for improving the LLS effectiveness within the UAF (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020, p. 8). According to "The Lessons Learned Doctrine in the Armed Forces of Ukraine (LL Doctrine 2020)", approved by the Chief of the UAF General Staff on June 30, 2020 (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020, p. 10): "The standardized lessons learned process is a set of systematized sequential procedures used to collect, analyze, and summarize information on solving the problems or sustaining good practices, determine the root causes and propose solutions, as well as disseminate and apply obtained experiences during the training and combat employment of the Armed Forces of Ukraine."

Today the LLS functioning, particularly the LLP operating, in the UAF can be characterized as problematic. Considering the ongoing large-scale Russian armed aggression, the untimely or superficial solving of the war issues, not using potential best practices is a crime and too high price – the Ukrainian lives, the independence and territorial integrity of our state. Hence, presumably everyone in the UAF understands the necessity and importance of analyzing, implementing, and sharing the obtained lessons. This practice should be undertaken by all commanders and a majority of the UAF officers, as it is their first-hand duty. However, according to the principle "everyone and no one", the LLP organization in many UAF units can be assessed as declarative rather than well-thought-out and effective.

Additionally, it should be noted that from 2017 to 2019, a public discussion on ways to upgrade military learning was conducted among the UAF personnel (Naukovo-doslidna robota, shyfr "Dosvid-ZSV". 2020). As a result, participants, including commanders and scientists, proposed a wide range of valuable solutions for improving the LLP performance. Most of these recommendations were common administrative measures, but the systematic approach to the LLP functioning, which was administrated in Alliance and proved effective, was not adequately considered. Firstly, it can be attributed to the insufficient awareness of the Ukrainian military on the organizational learning practice performed in NATO countries. This was confirmed by a study conducted by the National Army Academy (Lviv, Ukraine) in collaboration with the Royal Holloway College of the University of London (Dyson, T. & Pashchuk, Y. 2022). For example, only 18.9% of respondents, mainly LL officers, knew about the organization and structure of the NATO LLP that was implemented in the UAF in 2020 (Dyson, T. & Pashchuk, Y. 2022).

Another important conclusion from the Ukrainian-British research was that the historical analysis of the learning practices, as well as the relevant theories (e.g., knowledge acquisition, knowledge management, and knowledge transformation, etc.) remained underexplored by the Ukrainian scientists (Dyson, T. & Pashchuk, Y. 2022).

According to the present-day neorealism postulate, the competitive international security environment, notably the threat of defeat on the battlefield, should be a powerful catalyst for the development of organizational learning. However, negative factors such as bureaucratic politics and imperfect military culture can significantly impact this progress (Dyson, T. 2019, p. 60–62). An example of this is the huge improvement of the LL activities within the UAF during the Ruso-Ukrainian War (2014 – present) (Dyson, T. & Pashchuk, Y. 2022). However, notwithstanding certain practical steps of the UAF towards the implementation of advanced learning practices, including the introduction of the standardized NATO LLP, the effectiveness of Ukrainian organizational learning remains low (Dyson, T. & Pashchuk, Y. 2022).

Given the above, a scientific and practical problem has been formulated, which remains underexplored in the scientific literature on military reforms in Ukraine, aimed at enhancing its defense capabilities: Why was the implementation of the NATO LLP in the UAF (2019–2024) partially successful, and what needs to be done to enhance its productivity and ensure proper interoperability with Alliance?

To address this issue, an interdisciplinary scientific approach was applied. Among the scientific methods used, the historical-comparative and historical-systematic methods are noteworthy. The first approach was employed for a comparative analysis of the dynamic changes in the structure and forms of lessons learned processes used in NATO (2000–2024) and the UAF (2019–2024). The second procedure was used to consider the internal and external links of the above processes within the functioning of the respective LL Systems: the NATO Joint Lessons Learned System and the UAF Lessons Learned System. The research involved studying the relevant scientific reports, and archival and guiding documents of the Ukrainian Armed Forces and Alliance.

The paper aims to examine the retrospective of applying the formal lessons learned process in the Ukrainian Armed Forces (2019–2024) according to the NATO standards to ensure operational interoperability of the national and Alliance's command and control systems.

Main Material. Findings and analysis. The semi-formal LLP was first applied by the German and British armies during World War I (Dyson, T. 2019; Marcus, R. 2015). One of the first to use a formal LLP was the US Armed Forces. In 1984, the Army Studies Group, led by Colonel Wesley Clark, implemented formal learning procedures for analyzing the lessons of the military operation "Urgent Fury". This group became a ground for establishing the Center for Army Lessons Learned (CALL) on August 1, 1985. The main Center's functions were to collect, analyze, disseminate, and archive lessons learned and best practices. Subsequently, in the late 1980s, following the successful functioning of CALL, the formation of the US Joint Lessons Learned System (US JLLS) began (Dixon, 2011, p. 227; Landry, A. 1989, p. 147).

At the turn of the millennium, rapid scientific and technological progress, particularly in development of the information and communication technologies, created prerequisites for significant acceleration of the formal LLP tempo, primarily through instant knowledge sharing (Dyson, T. 2019). It was one of the dominant factors that led to the creation of the NATO Joint Lessons Learned System (NATO JLLS) in the early 2000s, modeled after the US JLLS and continuously evolving over the next quarter-century to meet NATO's operational and strategic needs.

Within the NATO JLLS, the lessons learned process, one of the seven basic elements of NATO's learning capability (leadership, mindset, structure, process, tools, training, and information sharing), was continuously improved (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018, p. 5). The most serious changes in the definition, structure, and form of the NATO LLP were introduced in the Alliance's doctrinal documents in 2010, 2018, and 2022.

In 2010, the first edition of "The NATO Lessons Learned Handbook" (The Lessons Learned Handbook. 2010) defined the LLP as "a procedure for deliberately staffing observations arising from an activity until a lesson learned is reached", encompassing three key phases (Fig. 1) (The Lessons Learned Handbook. 2010, p. 2–10): "Identification" (collecting knowledge from experiences), "Action" (taking remedial actions based on the learning knowledge), "Institutionalization" (sharing the changes). Mainly the '2010 LLP standard' (Fig. 1) was pointed out "to gather, staff, action and communicate lessons to ensure learning from experience is converted into actual improvement via a formal process" (The Lessons Learned Handbook. 2010, p. 2).
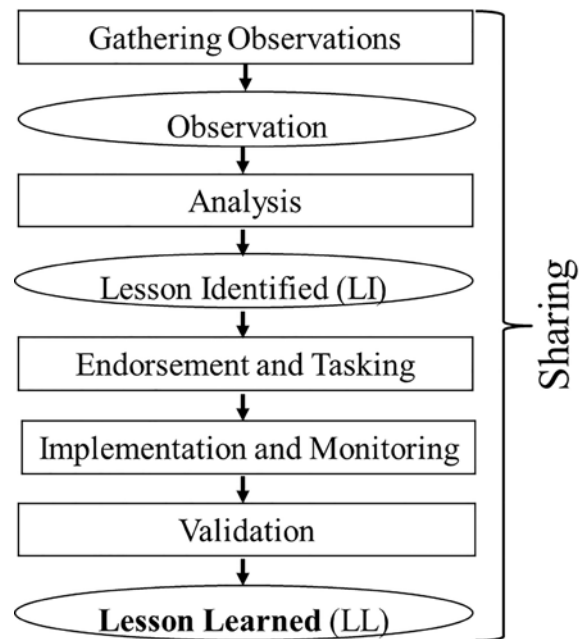

Figure 1. NATO Lessons Learned Process ('2010 LLP standard')

In 2018 the "Bi-Strategic Command Directive 080-006" (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018) presented a modernized '2018 LLP standard' (Fig. 2), which later, in 2020, was implemented in the UAF within the creation of the Lessons Learned System (January 2019 – present). Conforming to the renovated interpretation, the LLP was "executed in order to deliver improvements and provides a structured framework with a clear division of roles and responsibilities throughout the process" (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018, p. 8). The updated process structure (Fig. 2) included two phases: "Analysis" (output: lesson identified – LI) and "Implementation" (output: lesson learned – LL); and six stages: Plan, Observe, Analyze, Lesson Identified, Decide, Implement (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018, p. 6–7).

In 2022 NATO introduced the latest significant changes to the institutionalized LLP in the fourth edition of "The NATO Lessons Learned Handbook" (The NATO Lessons Learned. 2022). Since, the lessons learned process is "a part of a formal approach to organizational learning that deliberately processes observed issues arising from an activity until either a lesson learned is reached, or the lesson is rejected/noted for various reasons" (The NATO Lessons Learned. 2022, p. 17). These learning procedures are designed "to develop a lesson, to include sharing and utilizing it appropriately" (The NATO Lessons Learned. 2022, p. 14).
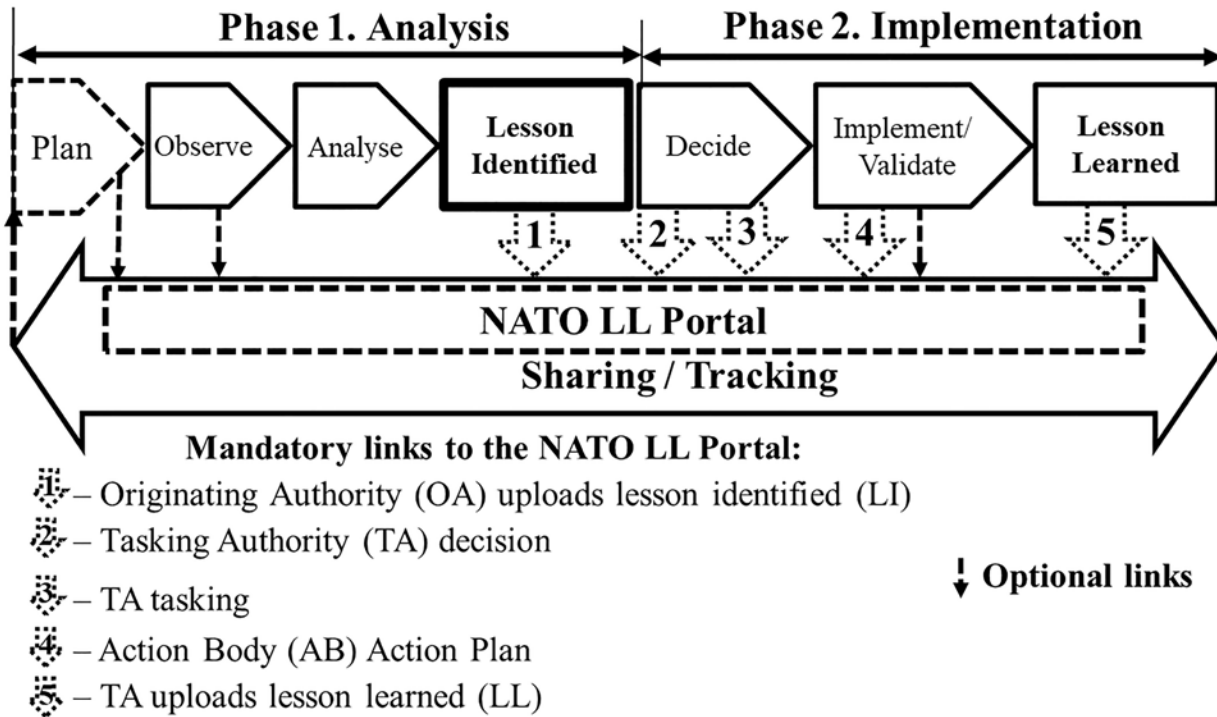
Figure 2. NATO Lessons Learned Process ('2018 LLP standard')

The '2022 LLP standard' (Fig. 3) comprises two phases (The NATO Lessons Learned. 2022, p. 18): "Analysis" (outcome: lesson identified or potential best practice – LI/PBP) and "Implementation" (outcome: lesson learned or best practice – LL/BP); as well as six stages: 1.1) Plan, 1.2) Observe, 1.3) Analyze, 2.1) Decide, 2.2) Implement and Validate, 2.3) Share.

Unlike NATO countries, the '2018 LLP standard' (Fig. 2) was implemented in the UAF only in July 2020 (Doktryna z vyvchennia ta vprovadzhennia

dosvidu… 2020; Tymchasova instruktsiia vyvchennia ta vprovadzhennia… 2020) and has not undergone significant transformation to align with the revised and improved '2022 LLP standard' (Fig. 3). Against this background, it should be emphasized that LLS building in the UAF was driven by the low effectiveness of previous SLAD as well as Ukraine's foreign policy priorities to gain Alliance's membership, including increasing interoperability in the organizational learning sector. Execution of this strategic course has been carried out since 2017
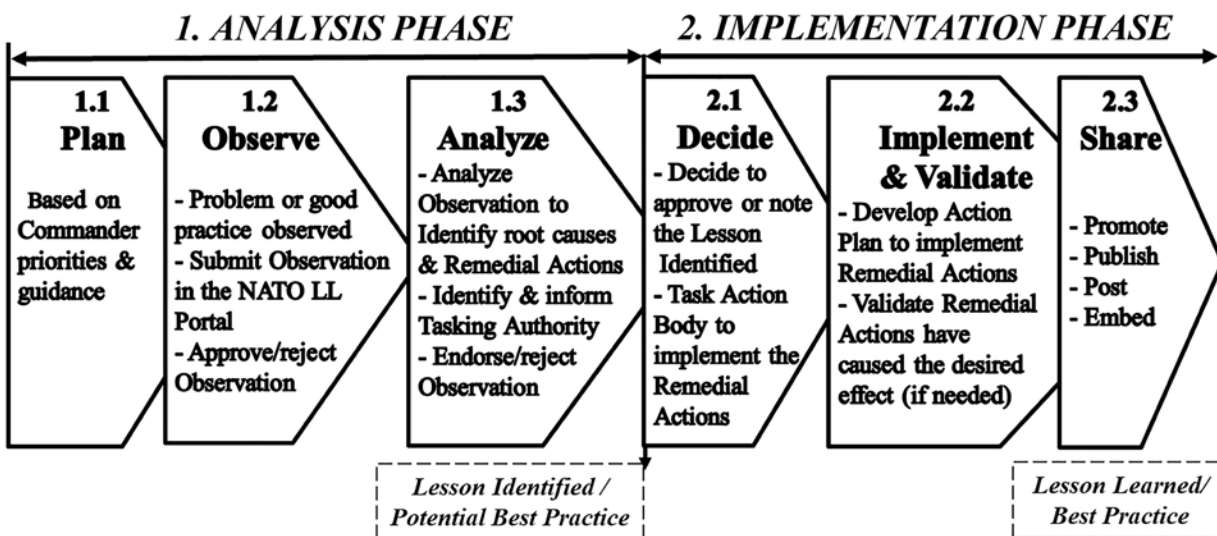

Figure 3. NATO Lessons Learned Process ('2022 LLP standard')

in cooperation with the NATO Representation to Ukraine within "The Lessons Learned Capability Development Program" (NATO Representation to Ukraine. 2020, p. 1–2).

Among the four dominant aspects of the "LL Roadmap" (Plan stvorennia u Zbroinykh Sylakh Ukrainy… 2018) to form the LLS, a key one was to introduce the '2018 LLP standard' (Fig. 2) in the UAF by December 30, 2019 (Plan stvorennia u Zbroinykh Sylakh Ukrainy… 2018, p. 2–3). Nevertheless, this task was completed a year and a half later, after the approval of the relevant LL documents (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020; Tymchasova instruktsiia vyvchennia ta vprovadzhennia… 2020) and marked a final transition from semi-formal to formal LLP to increase interoperability with the Alliance in the organizational learning domain (Pashchuk, Y.M., Pashkovsky, V.V. 2023, p. 27).

A detailed analysis of the LL doctrinal documents (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020; Tymchasova instruktsiia vyvchennia ta vprovadzhennia… 2020) reveals their crucial weaknesses. Overall, their texts are 'vague' and written in a complex and non-concise manner. One of the main shortcomings of the LL documents is a lack of full compatibility with relevant NATO doctrines (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022). Also, the advanced world practices in organizing the lessons learned processes were only partially and fragmentarily utilized (Naukovo-doslidna robota, shyfr "Dosvid-ZSV". 2020, p. 110–113; NATO Representation to Ukraine. 2020, p. 1–3; Dyson, T. & Pashchuk, Y. 2022, p. 146–147). For example, internal and external links between various military bodies involved in the NATO LLP were not applied, and some learning approaches were not fully described. This predominantly concerns the procedures for submitting observations and executing their analysis; exchanging and tracking of LL information and other critical LL data that normally circulated within the NATO lessons learned process.

Moreover, "The Temporary Lessons Learned Standard Operating Procedures in the Armed Forces of Ukraine (LL SOP 2020)" (Tymchasova instruktsiia vyvchennia ta vprovadzhennia… 2020) lacks the comprehensive methodology of 'academic' lessons analysis, as presented in "The Joint Analysis Handbook" (The Joint Analysis Handbook. 2016). Correspondingly, the LL SOP 2020 does not contain a clear description of the LLP, for instance: decision-making on approving observations, and endorsing/

approving of LIs/PBPs and LLs/BPs; planning, implementing, and validating remedial actions; sharing important LL information on changes, etc. Besides, definitions for the following LL bodies (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022) are missing in the LL SOP 2020:

- Originating Authority (OA),
- Headquarters (HQ) Lessons Learned Working Group (LLWG),
- Tasking Authority (TA),
- Action Body (AB).

Also, the duties and responsibilities of these LL agencies and their cooperation and interaction during the LLP are not formulated.

The stated discrepancies of the UAF LL documents with appropriate NATO requirements (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018, p. 4–13; The NATO Lessons Learned. 2022, p. 13–21) became one of the main factors of creating a "gap" between the first and second phases of the LLP, hindering the complete transformation of acquired knowledge (lessons) to achieve the learning objective – to improve the UAF training and employment (Pashchuk, Y.M., Pashkovskyi, V.V. 2023, p. 30). This was one of the fundamental reasons why outcomes from the performed analyses of experiences, including endorsed and approved LI/PBP, can be only informative, and recommended remedial measures may not be mandatory for implementation. Consequently, despite some principal enhancements in 'potential absorptive capacity' due to the improving ability of the Ukrainian military to acquire and assimilate knowledge throughout the first Analysis phase, there were continued deficits in 'realized absorptive capacity' characterizing the limited effectiveness of the second Implementation phase (Dyson, T. & Pashchuk, Y. 2022, p. 152).

Even with the above-mentioned shortcomings, the introduction of the LL Doctrine 2020 and LL SOP 2020 in the UAF was an extremely important step in establishing the LLS and creating a regulatory framework for applying the institutionalized NATO lessons learned process. The performance of the formal LLP during the Joint Forces Operation (2020–2022) demonstrated its significant advantages over the semi-formal process used during the Anti-Terrorist Operation (2014–2018) (Dyson, T. & Pashchuk, Y. 2022).

Further transformation of the NATO LLP in the UAF was achieved after February 24, 2022, within the comprehensive adaptation of the LLS to conditions of the full-scale Russian war against

Ukraine. The main changes in the LLP's functioning included (Pashchuk, Y.M., Pashkovskyi, V.V. 2023, p. 28–31):

1) Enlarging the LL structure and establishing the unified representation of LL bodies at the tactical and operational levels. These measures significantly improved the LLP operation. However, most military bodies still exhibit the negative tendency that the LL officers are frequently 'distracted' from the LLP running to perform other tasks.

2) Using the mobile lessons learned training teams directly in the troops in 2023 and conducting regular online LL courses in 2024. As a result, more than 200 LL officers during this period obtained relevant LL training that allowed them to better understand the LLP and enhance its performance. However, there is even now a low level of LL awareness among all UAF personnel, especially, regarding the structure and functioning of standardized lessons learned process (Dyson, T. & Pashchuk, Y. 2022).

3) Reforming operation of the mobile lessons learned working teams by growing their number and expanding their tasks. This approach increases the overall LLP efficiency, chiefly enhancing the productivity of its first phase ("Analysis").

4) Increasing the speed of sharing experiences, exclusively critical combat experience, within the Ukrainian military community. Until mid-2018, the average time from submitting observations to receiving relevant learning analysis in the troops was three months, and after introducing the new Electronic Document Management System – two months (Naukovo-doslidna robota, shyfr "Dosvid-ZSV". 2020). By spring 2023, owing to administrative measures to limit the maximum time for processing the 'bottom-up' LL data and transmitting the 'top-down' LL analysis results, this index was reduced to one month, (Pashchuk, Y.M., Pashkovskyi, V.V. 2023, p. 29). But it was still worse than in the Alliance since its LL Portal ensured the instant dissemination of experiences and provided quick and reliable access for authorized users to the full spectrum of LL information within the LLP.

First and foremost, such an unsatisfactory state was and remains due to applying an "ineffective" Interactive Electronic Lessons Learned Database (IELLD) and the absence of the UAF LL Portal, which should have become an informational core of the prospective Lessons Learned System. It should be noted that the NATO Joint Lessons Learned Database has been active since 2003 and was replaced by the NATO LL Portal in 2010 (Naukovo-doslidna robota,

shyfr "Dosvid-A". 2018). The UAF lacked lessons-learned databases until 2017 despite aspirations to create the IELLB in 2014 (Naukovo-doslidna robota, shyfr "Dosvid-A". 2018). This database was launched in November 2017, had outdated software, contained only open information, and did not provide fast and valid access the military personnel to needed LL data (Dyson, T. & Pashchuk, Y. 2022).

The LL Portal was to be created in the UAF by June 30, 2021 (Plan stvorennia u Zbroinykh Sylakh Ukrainy… 2018), but the "Program for the Development of the LL Portal Infrastructure", which was flawed, remains unfinished. One of the main problems in building the Portal was to integrate all LL databases that have been created in the different UAF military bodies, had non-identical structures, and used incompatible information exchange standards (Dyson, T. & Pashchuk, Y. 2022). Additionally, these databases operated with the LL terminology different from NATO's, not meeting the interoperability requirements and hindering further information integration with the NATO LL Portal (NATO Representation to Ukraine. 2020, p. 10). As a result, today the UAF LL sharing remains slow and continues, principally, through the dissemination of regular and/or urgent printed (electronic) information bulletins.

Deriving from the above analysis some principal recommendations have been developed to improve the LLP efficiency in the Armed Forces of Ukraine. First, it is proposed to refine the existing doctrinal documents on organizational learning (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020; Naukovo-doslidna robota, shyfr "Dosvid-ZSV". 2020). This requires aligning them with the NATO standards (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022) and updates in the advanced lessons learned theories and practices, as well as adapting to the challenges of the ongoing Russo-Ukrainian War. Specifically, to increase interoperability with NATO in the organizational learning domain, it is necessary to edit the LL terms according to the NATO terminology and simplify the UAF list of lessons learned reports (NATO Representation to Ukraine. 2020; Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022).

To eliminate the "Achilles' heel" in organizing the LLP and fill the "hole" in its two phases, it is recommended to develop a clear mechanism for interaction among all LL bodies during the process operating. Moreover, it is proposed to introduce in the UAF an updated variant of the NATO LLP ('2022
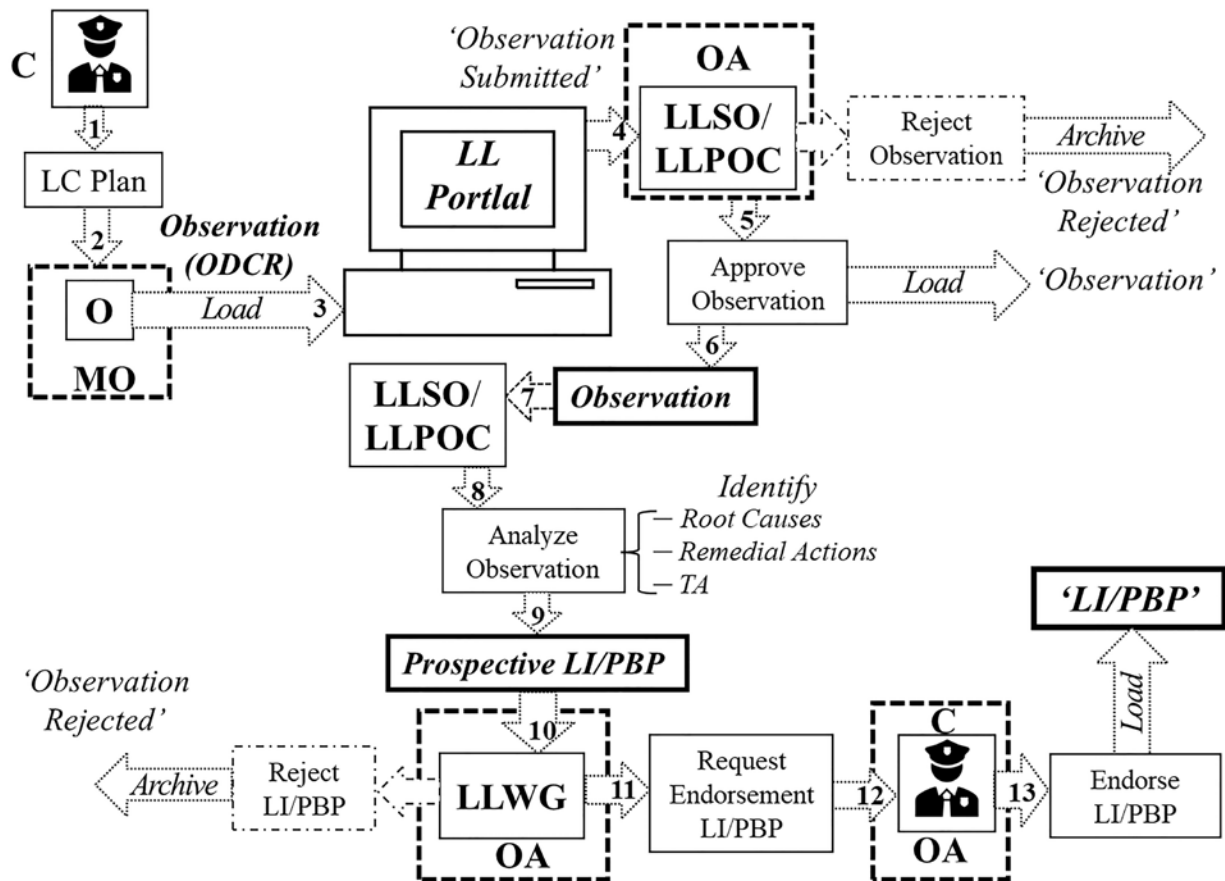
Figure 4. Model of organizing the first phase ("Analysis") of the '2022 LLP standard'

LLP standard' – Fig. 3). In this regard, it would be appropriate to use the LLP models constructed by the author based on the analysis of the latest NATO LL documents (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022). Below is a schematic presentation of two sequentially interconnected models of organizing the first Analysis and second Implementation phases of the '2022 LLP standard', shown in Fig. 4 and Fig. 5 using the following denotations:

- AB – Action Body,
- C – Commander,
- LC Plan – Lessons Collection Plan,
- LLPOC –Lessons Learned Point of Contact,
- LLSO – Lessons Learned Staff Officer,
- LLWG – HQ Lessons Learned Working Group,
- MO – military organization,
- O – originator of the observation (soldier/ employee/military organization),
- OA – Originating Authority (usually the originator's HQ),
- ODCR – specific template of the submitted observations: Observation, Discussion, Conclusion, and Recommendation (Bi-Strategic Command Directive 080-006. Lessons Learned. 2018; The NATO Lessons Learned. 2022),

- TA – Tasking Authority,
- 1-27 – procedures sequence within the LLP.

The above models (Fig. 4 and Fig. 5) display the structure, and internal and external links of the '2022 LLP standard' within the functioning of the present NATO Joint Lessons Learned System.

Additionally, to improve the LLP organization it is recommended to enhance using of the mobile (working) lessons learned teams to monitor and assist in the implementation and validation of remedial actions (stage 2.2 "Implement and Validate" – Fig. 3). Much thoughtful attention should be paid to the critical need in increasing the UAF personnel awareness about war learning, primarily concerning the institutionalized lessons learned process. This can be achieved by using the best practices of the Ukrainian online courses on mine safety and cybersecurity. The LL courses' multiplicity (stationary, mobile, and online), organized in Ukraine and NATO states, should be conducted regularly not only for lessons learned staff officers and lessons learned points of contact but also for the military leadership.
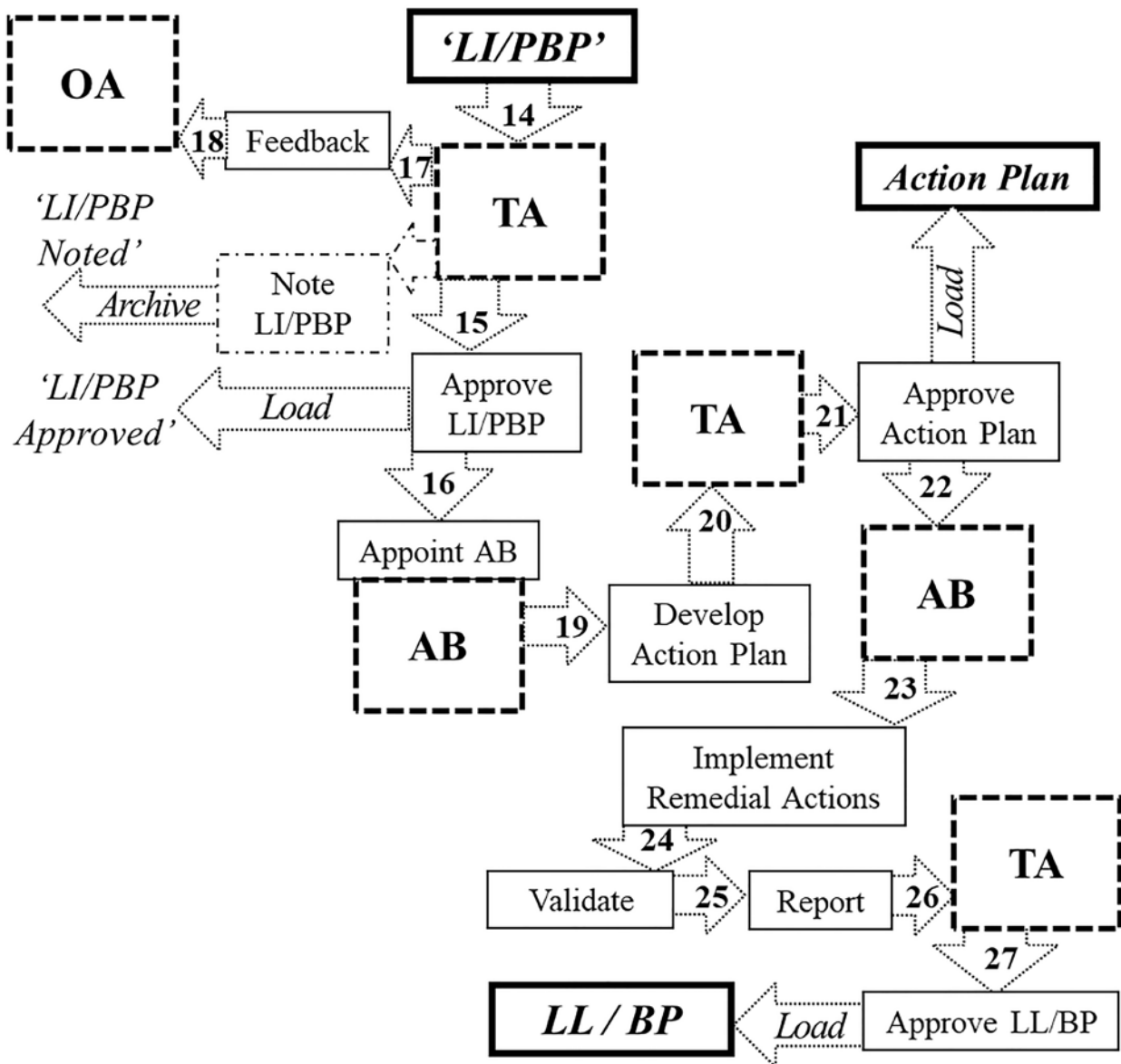
Figure 5. Model of organizing the second phase ("Implementation") of the '2022 LLP standard'

Ultimately, it should be emphasized that no matter how perfect the four key 'pillars' of effective lessons learning (organizational structure, process, tools, and training), the Ukrainian military and their mindset are the main driving force behind improving such activities. Likewise, a 'superb' NATO LLP, even fully implemented in the UAF, will not be effective without the participation of all soldiers, their initiative and persistence, as well as proper leadership of all commanders in organizing this process.

Conclusions. Based on the study of implementing the standardized NATO LLP in the Armed Forces of Ukraine (2019–2024), four main aspects that influenced its effectiveness should be highlighted:

1) Evolution of organizational learning in the Armed Forces of Ukraine. This is characterized by a key transition from the previous System of Lessons Analysis and Dissemination to the prospective Lessons Learned System, which has been formed since January 2019 using the Alliance's best practices in organizational learning. The introduction of the formal NATO LLP in the UAF in mid-2020 was a crucial step in modernizing the Lessons Learned System and increasing its productivity.

2) Challenges of implementing the institutionalized lessons learned process. The NATO LLP was applied in the UAF not fully in line with Alliance's requirements, causing significant delays and difficulties in its performance, specifically during its Implementation second phase. The main problems included: insufficient compatibility of the UAF LL documents with

NATO specifications; unfit methodology of obtaining, analyzing, implementing, validating, and sharing experiences; the absence of transparent cooperation and interaction among various command and control bodies, and lessons learned branches within the LLP functioning.

3) Weaknesses of the lessons learned regulatory framework. Specifically, the lack of full compatibility of the UAF LL documents (Doktryna z vyvchennia ta vprovadzhennia dosvidu… 2020; Naukovo-doslidna robota, shyfr "Dosvid-ZSV". 2020) with the NATO standards caused the "separation" between two LLP phases, limiting the effectiveness of the Lessons Learned System.

4) Positive outcomes of implementing the NATO lessons learned process. The performance of the formal LLP in the Armed Forces of Ukraine has significantly improved their learning capability. It allowed to increase the productivity of the experiences acquisition, analysis, and dissemination. Ultimately, this course granted enhancement of the UAF training and employment in deterring Russia's aggression against Ukraine. This also brought the Ukrainian Armed Forces closer to fulfilling their commitments to ensure complete interoperability for obtaining Euro-Atlantic integration.

To improve the lessons learned process functioning in the Armed Forces of Ukraine, it is suggested to:

1) Conduct a detailed revision of the lessons learned regulatory documents to align them with the NATO standards.

2) Develop a comprehensive methodology for obtaining, analyzing, implementing, and disseminating experiences. From this perspective, it would be cardinal to introduce in the UAF the latest NATO LLP version ('2022 LLP standard'), using the offered models (Fig. 4 and Fig. 5) and a clear interpretation of responsibilities and accountability among various military bodies.

3) Ensure proper lessons learned training. It is concerned with improving the military learning awareness of all UAF personnel, and chiefly LL personnel as well as military leadership regarding the advanced practices in operating the lessons learned process.

4) Promote further historical research on the national and global trends in the theories and practices of organizational learning.

To refine military cooperation with the Alliance and increase interoperability with the coalition, as well as successfully perform the standardized NATO LLP, the UAF require to originate a comprehensive systematic approach that is foremost based on improving the LL regulatory framework, enhancing personnel LL training, adapting to the present challenges of the Russia' aggression. At the same time, it is necessary to emphasize that the execution of the developed recommendations does not require colossal efforts and financial costs, but it should significantly contribute to the further building of Ukraine's defense capabilities.

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ВОЄННО-ІСТОРИЧНИЙ АНАЛІЗ ІМПЛЕМЕНТАЦІЇ У ЗБРОЙНИХ СИЛАХ УКРАЇНИ ПРОЦЕСУ ВИВЧЕННЯ ТА ВПРОВАДЖЕННЯ ДОСВІДУ ЗА СТАНДАРТАМИ НАТО (2019–2024 рр.)

Стаття присвячена вивченню історичних аспектів імплементації у Збройних Силах України стандартизованого процесу вивчення та впровадження досвіду (2019–2024 рр.) відповідно до вимог НАТО та цільових завдань із реалізації євроатлантичних інтеграційних прагнень України. Запровадження зазначеного процесу в Збройних Силах України було регламентовано відповідними керівними документами та здійснювалося у межах формування перспективної Системи вивчення і впровадження досвіду з урахуванням базових теоретичних і практичних напрацювань Північноатлантичного Альянсу для забезпечення сумісності національної та коаліційної систем військового управління.

Проведений воєнно-історичний аналіз імплементації у Збройних Силах України формального процесу вивчення та впровадження досвіду за стандартами НАТО дав змогу визначити як позитивні результати, так і проблеми у його реалізації. Автор також дійшов висновку про певні невідповідності у його запровадженні порівняно з Альянсом та про необхідність підвищення дієвості цього процесу для подальшої розбудови оборонних спроможностей України. Незважаючи на певні недоліки в організації цього процесу, спричинені, насамперед, неузгодженостями нормативної бази із вимогами НАТО, імплементація встановлених стандартизованих процедур дала змогу покращити функціонування Системи вивчення і впровадження досвіду та в підсумку забезпечити підвищення ефективності

навчально-бойової діяльності Збройних Сил України, їх наближення до стандартів євроатлантичної інтеграції.

На основі дослідження запропоновано комплексний системний підхід до вирішення окреслених проблем із урахуванням викликів та умов російсько-української війни, світових тенденцій у теорії та практиці вивчення і впровадження досвіду, а також у контексті подальшого розвитку військового співробітництва з НАТО та досягнення оперативної сумісності зі збройними силами держав, що є його членами та партнерами.

Ключові слова: процес вивчення та впровадження досвіду, Збройні Сили України, НАТО, євроатлантична інтеграція, військове співробітництво.