



Learning in the Force Protection Environment between International Operations: Last-Minute Learning

MARTIN GARD GRUNNE

CHRISTIAN ROBBINS

KÅRE INGE SKARSVÅG 

TRYGVE STEIRO 

*Author affiliations can be found in the back matter of this article

**PRACTICE-ORIENTED
ARTICLE**

SCANDINAVIAN
MILITARY STUDIES

ABSTRACT

This study considers learning in international military operations. It explores these questions: What are the obstacles to learning in a military context? How did these obstacles manifest themselves in contribution made by the Royal Norwegian Air Force (RNoAF) in Mali? How effective in overcoming these obstacles were the formal and informal learning processes that took place? And what does this tell us about how learning might be improved in a military context? Norway has supported the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) since 2013. The RNoAF contribution began in January 2016 and continued periodically until May 2021. The contribution consisted of a Hercules C130 transport aircraft with crew and other support personnel. The detachment from Norway consisted of approximately 60–70 women and men with backgrounds in various fields of expertise (aviators, navigators, cargo masters, technicians, security personnel, and other support personnel) required to execute the mission. Based on in-depth interviews of key personnel, this study looks at learning that took place among the various constellations of personnel from the force protection responsible for security during the operation. Much of the learning took place through last-minute efforts because of tight schedules and other pressing tasks. The study has resulted in a conceptual model for facilitating and better supporting the acquisition of knowledge through a continuous process rather than at the last minute. This will require top-down and bottom-up processes, both formal and informal.

CORRESPONDING AUTHOR:

Kåre Inge Skarsvåg

Major, Norwegian Defence
University College/Royal
Norwegian Airforce Academy,
Trondheim, Norway

kskarsvag@mil.no

KEYWORDS:

United Nations; MINUSMA;
force protection;
organizational learning; time
factor; last-minute learning;
continuous improvement

TO CITE THIS ARTICLE:

Grunne, M. G., Robbins, C.,
Skarsvåg, K. I., & Steiro, T.
(2023). Learning in the Force
Protection Environment
between International
Operations: Last-Minute
Learning. *Scandinavian Journal
of Military Studies*, 6(1), pp.
11–23. DOI: [https://doi.
org/10.31374/sjms.148](https://doi.org/10.31374/sjms.148)

Although entirely central to air operations, air bases are something of an Achilles heel: air platforms are particularly vulnerable at the base (Haga & Maaø, 2018). Force protection therefore plays an important role in safeguarding air operations. Haga and Maaø point out that force protection measures develop continuously. When deploying to international operations, force protection personnel need to familiarize themselves with local conditions. Being more complicated (Haga & Maaø, 2018), operations outside Norway call for continuous development and learning on the part of the personnel involved.

Haga & Maaø (2018) point out that experiential learning plays a central role in the Royal Norwegian Air Force (RNoAF), with debriefing, traditionally about technical and tactical conditions, being an essential component. Moldjord & Fredriksen (2017) note that this has been extended to the relational and emotional aspects, sometimes referred to by the term “holistic debrief” (Folland, 2009). The holistic debrief leads to an increased demand for leadership competence, specifically with regard to learning processes. There is, thus, a need for leaders with both skilled professional and relationship competence (Haga & Maaø, 2018). Analyzing the acquisition of knowledge in an international military operation, this article shows that much learning takes place through last-minute efforts because of tight schedules and other pressing tasks. It concludes by presenting a conceptual model for learning as a continuous process.

THE OPERATIONAL CONTEXT: MISSIONS IN MALI

Norway began support for the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) in 2013. The RNoAF's contribution, consisting of a Hercules C130 transport aircraft with crew and other support personnel, comprised several deployments between January 2016 and May 2021. The total detachment from Norway consisted of approximately 60 to 70 women and men with backgrounds in various fields of expertise required to execute the mission; these were principally aviators, navigators, cargo masters, technicians, security personnel, and other support personnel. The Force Protection unit that is studied in this article is situated at Ørland Main Air Station. The Aircraft and support personnel is located at Gardemoen Airbase.

The force protection soldiers' principal duties were to assure the security of the RNoAF's bases and joint detachments. When force protection personnel operated in Mali, their objectives were primarily securing the base and establishing safe perimeters when the Norwegian Hercules C130 operated. This type of force protection aims to reduce the vulnerability of personnel, materials, and operations to ensure their own freedom of action and operativity.

RESEARCH QUESTION AND THEORY

This article examines the following questions: What are the obstacles to learning in a military context? How did these obstacles manifest themselves in the RNoAF's contribution in Mali? How effective were formal and informal learning processes, which took place in overcoming these obstacles? And what does this tell us about how learning in a military context might be improved?

According to NATO Allied Joint Doctrine, the acquisition of knowledge is a process requiring one to “learn efficiently from experience and to provide validated justifications for amending the existing way of doing things, to improve performance, both during the course of an operation and for subsequent operations” (NATO, 2019, p. 149). Several authors argue that military organizations need to address both formal and informal processes if lessons can be drawn through continuous learning (O'Toole & Talbot, 2011; Dyson & Pashchuk, 2022; Dyson, 2020; Maarten et al., 2022; Harig, 2020; Coticchia & Moro, 2016). Without repetition in training, exercises, and operations, these core competencies can quickly deteriorate with the risk of defeat in battle. For a recent articulation of this argument, see Gentile (2010).

It has been identified that the ability of the Israeli Defense Forces to successfully adapt to battlefield surprises in action was facilitated by several important attributes related to its organizational learning capacity: a dynamic, action-oriented organizational culture, a flexible leadership and command style, specialized commando units acting as “incubators” for learning and innovation, and a formal system to institutionalize and disseminate lessons learned (Marcus, 2009).

A study from the Australian Army identified two learning systems: a formal learning system directly managed by the organization, and an informal system driven by the organizational culture and fostered through strong social networks (O'Toole & Talbot, 2011). The study's authors advocate a social theory of learning process, encompassing the sharing of knowledge and experience through social interaction. Similarly, Catignani (2014) advocates applying social theory in adapting both informal and formal learning in the British Army. As the experiences of the British and American armies in Afghanistan and Iraq illustrate, by institutionalizing bottom-up learning through formal channels and battlefield knowledge management programs, modern militaries are increasingly able to learn and adapt on the ground at a more rapid pace (Foley et. al., 2011).

Learning can be hampered if the acquisition of knowledge through formal learning systems cannot take place in a timely fashion. It can also be impaired by being decontextualized in an effort to make the knowledge generally applicable. Military organizations can adapt in two ways to underperformance and environmental change: they can exploit core competencies to refine or modify existing tactics, techniques and technologies, and they can explore new capacities by developing new modes and means of operations (March, 1999).

In military organizations, memory is stored in doctrine, lessons-learned processes, and training. Good memory facilitates exploitation of core competencies; effective doctrine, lessons-learning, and training all contribute to the recall and appropriate application of core routines (March & Levitt, 1999). The second enabling factor is the degree of centralization in the organization. Centrally controlled organizations are efficient at exploitation because they can allocate resources as necessary to sustain a sufficient repertoire of competencies and ensure adequate application of competencies in operations.

Organizations in which authority and a degree of autonomy are delegated to component units are less efficient at the management of core competencies. They are, however, more sensitive to changes in their local environment. These two characteristics, less focused on centrally managed competencies and more focused on local conditions, more incline decentralized organizations to explore new alternatives (March, 1999). The third factor is personnel turnover. Ideas travel with people and organizations can lose old knowledge when people leave. But new appointments can bring fresh ideas and perspectives when they join organizations. This effect is most pronounced at the top – hence struggling businesses often try to turn things around by replacing their chief executives (March, 1999).

In the RNoAF, several studies of learning processes have been done (see, among others, Antonacopoulou et al., 2019a; 2019b). There is currently a need for studies examining different areas of the RNoAF from learning perspectives. The RNoAF's recent mission in Mali represents continuous participation in international operations. These operations offer the potential to illuminate what happens to experiences and knowledge after the completion of the mission.

Folland (2009) introduced the concept of the holistic debrief. Moldjord and Fredriksen (2017) point out that learning involves action, thought, and reflection, and that one must be conscious of this process in order to learn from it; they clarify that the act itself does not necessarily lead to learning – one must reflect on the act, asking questions and thinking actions through, if one is to create reflexive processes and conscious experiences. The purpose of debriefing has traditionally encompassed everything from the restitution and prevention of trauma to organizational emphasis on learning, knowledge sharing, and development for groups in practical contexts (Moldjord & Fredriksen, 2017; Haga & Maaø, 2018).

Learning is often described through two main approaches to acquire learning. The first is rooted in individual cognitive learning theory, where learning largely occurs as an individual cognitive information process, focusing on the individual learner. The second main approach looks at learning through practice and participation in social and cultural relations rooted in the concrete situation (Filstad, 2017). Mastery learning involves a master as an educator in an art, subject, or craft under a legal contract, describing the relationship between the master and the apprentice and the duration and conditions of the relationship (Nielsen & Kvale, 2009, p. 18).

Traditionally, this has primarily been in statutory institutional structures and through a written agreement between an apprentice and a master, often referred to as *håndverkslæren* (“learning the craft”), or situated learning (Nielsen & Kvale, 2009). Learning from a master cannot be understood like this in all contexts, however. Through a historical approach to the term, the authors emphasize that there are various forms of learning a craft.

In Dreyfus and Dreyfus's (2009) theory for situated learning, skill-appropriation is divided into five levels: novice, advanced beginner, competent, proficient, and expert. While Dreyfus and Dreyfus claim that this way of considering situated learning perceives the pupil as a single individual isolated from the social context, they nevertheless believe that although any kind of learning obviously always takes place in a social situation, the situation does not necessarily affect the learning outcome (Dreyfus & Dreyfus, 2009, pp. 71–72). Although this does not exclude other ways of acquiring new knowledge, such as trial and error or imitation, the model uses formal teaching as the foundation to make skill acquisition as explicit as possible.

Lave (2009) has developed a theory of learning as socially situated (Nielsen & Kvale, 2009). This is based on the situated acquisition of knowledge through participation in communities of practice, where implicit knowledge also becomes a factor in the process (Filstad, 2017). Thus, situated learning is not conditioned to isolated educational institutions but is integrated in everyday practices. In doing so, the actual learning in situated learning is described as the social and bodily activities that take place in particular organized practices (Nielsen & Kvale, 2009).

Situated learning is understood here as decentralized rather than individual-centered, as the community of practice, and legitimate peripheral participation in this, contribute to learning in a master-apprentice relationship as well (Nielsen & Kvale, 2009).

Argyris & Schön (1978) argue that a learning organization will presumably never be able to achieve the goal of deutero-learning – that is, the organization itself learning to learn. Coghlan & Brannick termed this meta-learning (Coghlan & Brannick, 2010). But can these barriers to learning be overcome? Argyris & Schön (1978; 1996) have asked whether organizations are engaged in single- or double-loop learning, and whether the barriers to learning can be overcome (Morgan, 1986; 2011). To succeed, the people within the organization must be trained in understanding the assumptions and framework of a practice so that these may be challenged – what Schön (1983) calls self-reflective practice. By using one's practical knowledge and challenging the existing learning processes in the organization, it may be possible to achieve such learning (Lien & Skarsvåg, 2012).

Polanyi (1967) introduced the concept of “tacit knowledge” – knowledge that cannot be expressed through language. He offers a more philosophical approach to learning through experiences – does the theory exist before the problem? For Polanyi, the problem awareness present in a discovery process is dynamic and intertwined with the assumptions of a solution guiding the work (Lien & Skarsvåg, 2012).

The SECI model formulated by Nonaka and colleagues (2005) is an attempt to understand the interaction between tacit and explicit knowledge. The acronym is formed of *socialization* (transfer of tacit knowledge), *externalization* (conversion of tacit to explicit knowledge), *combination* (the transfer of explicit knowledge), and *internalization* (the conversion of explicit to tacit knowledge). It is through socialization with others that one develops tacit knowledge, which is often based on an individual's already existing tacit knowledge. By communicating this knowledge through externalization, knowledge can become explicit, and when this knowledge is available to others, it can be combined with theirs (Filstad, 2010).

This theoretical section has presented different aspects and perspectives of learning to strengthen the problem formulation and being able to identify obstacles to learning in military contexts. The following section addresses impediments to learning in a military context, specifically the RNoAF's contribution in Mali, and how effectively these were overcome with the formal and informal learning processes that took place, with the aim of better understanding how learning in a military context might be improved.

METHODS AND MATERIALS

The article focuses on defining the obstacles to learning in a military context, and how these obstacles manifest themselves in the RNoAF's contribution in Mali. How effective in overcoming these obstacles were the learning processes which took place, both formal and informal? And what does this tell us about the ways in which learning in a military context might be improved? To answer the research questions, a method based on the hermeneutic research tradition was chosen. This implies that the researcher's goal is to create more insight and understanding of questions or phenomena (Kjeldstadli, 2000).

In order to create more insight and understanding of the learning processes in the force protection community at Ørland Main Air Station, we have used a qualitative approach with open, individual, in-depth interviews (Kvale & Brinkmann 2009; Patton 1990). We carried out a strategic selection (Johannessen et al., 2006) of informants with the criterion that they had to be part of the force protection group at Ørland main air station and to have participated in NORTAD 2 (the second deployment of the Norwegian Tactical Airlift Detachment). At the same time, we were more flexible about which departments the informants come from and serve in from day to day.

So that our findings were as representative of the group as possible, we interviewed seven informants in different positions and from different departments, representing different aspect of the organization. These include everything from specialists to managers at various levels. In this way, we had the opportunity to map the perception of learning and how learning is arranged and takes place at different levels in the force protection group. All informants were presented the study scope and agreed to participate. Informed consent was given and all participants were given anonymity.

Our analysis followed an inductive approach that identified a link between the data we collected and already existing theory. The theory was used to explain and partly predict the significance of our results. In addition to describing our results and seeing them in the context of relevant theory, we aimed to explain and understand the connection between our results and theory. According to Jacobsen (2015), such an approach is often naturally taken because description, explanation, and partial prediction are closely interwoven. This made it appropriate for our research to not only describe, explain, or predict, but also to illuminate aspects in our survey using all three methods.

To obtain data for our research, we chose a qualitative approach with open, individual, in-depth interviews. The interviews were conducted by two of the authors with a background in the force protection community, assuming that their in-depth understanding of the occupation and the operational context would be beneficial. We also sought an analytical distance from the process, both so our biases and experiences did not impact the results, and in order to identify our assumptions (Repstad, 1993).

The qualitative research in-depth interview can be characterized as a structured conversation with a fundamental purpose; the intention is to bring out the informants' descriptions of the subject in question so the meaning of the content can be interpreted (Johannessen et al., 2006).

Seven informants were interviewed; the longest interview was 84 minutes and the shortest 26 minutes. The average for all the interviews was 47 minutes. Due to Covid-19, we chose to not conduct face-to-face interviews so as to reduce the risk of infection. Three of the interviews were therefore conducted by phone. The other four were done on the online video platforms Teams and Zoom.

The interview template had a semi-structured design, in which the questions had been put in an appropriate order to distinguish between topics and focus areas for the interview. The sequence could nevertheless be varied to give the informants flexibility to jump back and forth between questions if necessary.

After the interviews were conducted, the audio recordings were transcribed. In our hermeneutical research design, we categorized conditions and findings through open coding (Jacobsen, 2015), also closely associated with categorization of opinions (Johannessen et al., 2006). We saw that saturation was achieved (see Boddy, 2016) and that the number of interviews was sufficient. Malterud and her colleagues (2015) argue that saturation is not the only principle guiding the sample size of qualitative research and proposes a practice of "information power." This principle, similar to that of saturation, is based in the information density of the samples, meaning that the more information an interview contains, the fewer participants are needed.

For the data analysis, we printed the transcribed interviews and categorized the information using colour-coding. This involved categorizing specific topics found throughout the interviews. The categorization was done based on what the informants described in their own language; words and phrases formed various factors that were given different colour codes. Subsequently, the various factors were grouped in the following categories: technical/tactical focus, holistic debrief as a tool for learning and reflection, practice communities, tacit knowledge, situated

learning, focus on new missions, and personnel management. The similarities and differences of the topics resulted in three results we have chosen to call “formal skill acquisition,” “learning through practice communities,” and “last-minute learning” (*skippertakslæring*).

To avoid misquotations, the transcribed interviews have been sent to all informants. We have accommodated the few corrections that two of the informants made. None of the informants made any corrections of the citations relevant for the study.

RESULT AND DISCUSSION

In this section, we present our results and describe what they imply. We further explain and discuss the results in a separate passage. The survey shows that there are many factors that can lead to learning in the force protection group, but three of them are particularly prominent: formal skill acquisition, learning through a community of practice, and last-minute learning.

The results show that the force protection group at Ørland primarily learns through formal skill acquisition. This means choosing learning processes that emphasize technical/tactical feedback and skills after the completion of the mission, or during training and rehearsal in daily operations.

From the material illustrated in [Table 1](#), we see that the formal learning processes occurring during the planned education are referred to by several of the informants as having a major focus on technical/tactical debriefs in the force protection group. It is not uncommon for a military organization to adopt debriefings following this form. The technical/tactical focus and processes for learning are somewhat similar to the concept of “after action review,” when one addresses what happened, why it happened, and what could have been done differently. Such an approach to learning has proved appropriate in the aftermath of missions or other situations relevant to training ([Department of the Army, 1993](#)). These questions are also addressed in the operational debrief of the holistic debrief. The operational debrief is thus aimed at action-oriented learning, in which one considers causal relationships regarding incorrect execution or technical errors, to learn from as a group ([Moldjord & Fredriksen, 2017](#)). Torgersen and his colleagues ([2020](#)) show that such processes are continuous and without a clear ending. This might establish a framework for the operational debrief and help standardize it, so it also becomes relevant to other operational environments. We can therefore compare this to the informants’ descriptions of the technical and tactical focus and debrief as tools for learning.

Table 1 Formal and informal learning.

QUOTE	INFORMANT
“It’s probably more formal then, at least when formal debriefs are taking place and ‘wash-ups’ and stuff like that. Then you enter with a purpose of extracting the essence of your experience from the activity or event.”	Informant 7
“We usually have meetings on Mondays and Fridays. On Mondays we go through what is going to happen during the first week, and on Friday we have a new session where we go through everything that has happened, the positive aspects, and what we should focus on and try to improve.”	Informant 3
“We’re good at technical feedback. ... We focus mostly on drill, rehearsal, training, and improvement.”	Informant 1
“Focus on technical aspects is very easy, if you are bad in the drill, you either see it yourself or you get to hear it from your partner.”	Informant 1
“If there is something we are not happy with, we either let it be known when it happens, or when the mission is finished” and “everyone will be best and perform best. So, we have a really good culture with people who always aim for the top.”	Informant 4

Moldjord & Fredriksen ([2017](#)) also point out how an operational debrief may allow people to more easily admit mistakes of a tactical and operational nature, which can be a benefit for the whole group. This may indicate that the essence of operational debrief also happens outside the formal framework, and that the group has adopted a culture in which learning is a normal consequence of mistakes. In this way, formal skill acquisition is also made visible through training and practice during daily service. The informants point out that this illustrates the

learning culture of their unit, and that this also reflects their general perspective on learning. Professional development of the personnel receives considerable attention. This implies that the group has a learning culture that encourages tactical and technical feedback being given as soon as possible, with the intention of raising the level of competence. The most important aspect is getting as good as possible in their own field of expertise. Through this, we see a distinct tendency in the unit's culture towards the cultivation of technical and professional competence and, in doing so, facilitating learning for the personnel. By isolating these learning processes, it is evident that they are well implemented and rooted in the organization.

In addition, a number of requirements are attached to various positions that the relevant personnel are obliged to meet. In this way, a large part of the planned formal learning through education is implemented and maintained through a learning wheel that runs continuously throughout the year, ensuring the correct level of competence at all times. This evidences the functioning of a dynamic, action-oriented, organizational culture, a flexible leadership and command style, specialized commando units which acted as "incubators" for learning and innovation, and a formal system to institutionalize and disseminate lessons learned (Marcus, 2009).

QUOTE	INFORMANT
Informant 1's report may imply the need for something more than just technical/tactical learning processes: "I needed to chat with someone, just to get a confirmation that the things I reacted to are normal to react to ... and I think I reimagined more conflicts and situations that I wish I took, or wish I could get rid of..."	Informant 1
"There were a lot of good conversations, after all, and there were opportunities to open up if you had experienced something you thought was bad."	Informant 3
"The stopovers involved how to get back to normal status, talking about the things that had happened, untying potential mental knots, having a chat with a psychologist, doing medical checks etc. One of the main goals was to clear up ambiguous situations, besides having a nice time and connecting with the team."	Informant 4
"The stopover is the only time I've been in [holistic debrief], and I haven't participated in it since then."	Informant 5
"We are familiar with the concept of holistic debrief and that several of them are proficient at it, but that the challenge is to fully exploit the potential of the tool..."	Informant 6
"We're getting more skilled and educated people who have expertise of it, but we need to get it implemented in a good way. That it's an actual part of our mission solution. That it should not be a purely tactical or technical debrief, but also that the other parts of the holistic debrief need to be implemented, in order to improve. We need to realize this, and it's being recognized by our command level, but it's about getting it implemented downwards in the organization."	

Table 2 Arenas for sharing and discussing other than technical and tactical aspects.

By focusing only on operational debrief, the learning outcome after a completed mission may be somewhat limited. Our results in Table 2 shows that the force protection group also makes use of a relationship-oriented debrief, particularly when dealing with stopovers. Such an opportunity and measures imply that there are well-implemented routines to initiate a therapeutic, remedial, process to counter any mental obstacles or challenges the personnel may have following an international operation. For Moldjord & Fredriksen (2017) this can be an important foundation, although they emphasize learning through other processes. Some also point out that a holistic debrief approach or process is not fully integrated in the force protection environment.

COMMUNITIES OF PRACTICE

In addition to the formal processes described earlier in the article, we also see that the force protection group learns through communities of practice. These communities emerge through informal, but often technical, conversations: during breaks, for example, or work-related conversations in the office or in the lunchroom. In the theory section of this article, communities of practice are described as both a formal and informal learning process, but the results from Table 3 shows that the informal side of the community of practice is most prominent.

QUOTE	INFORMANT
“We have a fair share of both managed education and learning, and then you learn a lot in an informal way by talking to people and hearing how other people do it.” When asked when the informal learning processes come to terms, the informant adds: “It can be as simple as in the lunchroom, you meet someone in the hallway, you just take part in some education on shooting. There can be casual processes where you get feedback. For example, this was not very good, or this was really good. A lot happens between these debriefing and learning moments or educational moments that are informal in a way.”	Informant 7
“For me who lives out there and has housing provided by the armed forces, after all, I have no civilian friends out here who don’t work in the armed forces. I don’t know anyone who’s from Ørland who doesn’t work in the armed forces in a way ... there’s a lot of job talk.”	Informant 5
“It’s a clear focus on skills and becoming as good as possible. It seems like this permeates most situations. There are such high demands on the personnel that they don’t dare speak out about not keeping up and so on. ... One should be very conscious about how far one can push a high-performance culture before it turns into a negative culture.”	Informant 7
“I’m going both upwards, downwards, and laterally, really ... I might as well ask a team leader about it if there’s something I need to learn or understand. Or go to a conscript driver if I need to learn anything there.”	Informant 7
“I wish we were better at using those who were most recently in an operation when training the new ones.”	Informant 6
“If you don’t nag or put in an effort to go over an experience, then those experiences simply disappear, because there’s no one to gather them and keep them relevant”.	Informant 1

Table 3 Social aspects of learning.

Several other informants describe such processes in a similar way. As a result of the social network of some people in the force protection group, people bring job-related discussions home and air these during social gatherings in their spare time. This is in line with the theory of learning process, which encompasses sharing knowledge and experience through social interaction (O’Toole & Talbot, 2011). Similarly, Catignani (2014) advocates applying social theory in adapting both informal and formal learning. In this manner, the communities of practice also unite outside the workplace. One reason for this may be that learning and transferring tacit knowledge primarily happens in informal settings (Filstad, 2017); given that much learning is tacit in nature, this form of learning and transfer of competence most often occurs in the practice arena (Polyani, 1966; Nonaka & Takeuchi, 1995).

It is important to both acknowledge the kind and amount of tacit knowledge affecting the organization so as to increase the potential for development and learning (Moldjord, 2007). Acknowledging both the technical and cognitive tacit knowledge (Nonaka & Takeuchi, 1995), and how these may be transmitted and externalized according to the SEKI model (Nonaka et al., 2000), may be of benefit to ensure experience transfer from NORTAD 2.

Moldjord (2007) finds that while tacit knowledge can be positive for an organization, it can also be inhibitory, even inimical, to learning and development; a group’s culture may serve as an obstacle to the transmission of tacit knowledge through conversation, leaving it withheld and hidden, if individuals within a group are afraid of losing face, status, or influence. Moldjord designates such cultures “high-performance,” having a prominent focus on results and skills.

Informants report, meanwhile, that seeking an expert’s advice does not necessarily mean looking for advice further up in the system or hierarchy, but, rather, from the one with the most experience or expertise in the given field. This resonates with the thinking of Foley et. al. (2011); such experiences may imply that the community of practice facilitates learning and knowledge being exchanged across the hierarchy of grades and positions.

We observed that experience and learning from NORTAD 2 are primarily shared through a form of situated learning in which the most experienced in the units provide experience-sharing through various communities of practice. Several of the informants are careful to imply this when they point out that the experiential transmission between, for example, NORTAD 2 and NORTAD 3 is not rooted in the organization, and therefore knowledge and experience are shared individuals who think it important.

The results (Table 4) shows that while the force protection group learns through experience-sharing when facing new missions, the organization has not implemented good routines for doing so. The reason for this is that there is not a continuous focus on learning in the force protection group. The group’s focus on learning, on the other hand, manifests periodically, often in conjunction with new setups and preparations for new missions and operations. This implies that a focus on learning gradually fades away after the completion of a mission, reappearing only when preparing for new missions.

We have chosen to call this phenomenon last-minute learning. In our analysis, we have found two main reasons why a focus on learning is periodical rather than continuous. The first is that new chores and tasks require the immediate attention of personnel who do not prioritize reflection on what they have learned from the newly completed mission; the second is uncertainty over the status of positions, arising from the dismissal of personnel. We will now examine how these two aspects contribute to the occurrence of last-minute learning.

Table 4 Last-minute learning.

QUOTE	INFORMANT
“What we learned from NORTAD 2 is quickly forgotten and then it is brought up again when preparing for a new mission.”	Informant 6
“I didn’t experience any focus on learning, really.”	Informant 4
“It probably won’t be looked at before planning the next operation of the same type. Some experience gathered by the group is now being shared, but no focus on learning when we came back, no ... no, that’s a closed book.”	Informant 1
In addition, several of the informants were asked to contribute to preparations for NORTAD 3 a few weeks before deployment. Informant 1 explains: “It feels like I’m in a department that’s overworked ... so extra tasks are added all the time, there are no breaks where we get to wrap up anything ... I notice that during the last few weeks before the group heads out, then I get pulled into it ... then I feel like, couldn’t we have foreseen this?”	
Informant 6 tells us that there are no established routines for transferring experience and knowledge prior to new missions: “The initiative lies with the officer responsible for setting up the detachment ... after all, there is someone who simply asks, ‘May we use you?’ ... because, as I’ve said, we have a lot else that we need to do. Since we’re not officially assigned to that role, we must consider the request in light of all the other things we need to do. It would have been even better if I’d been part of the planning from the start.”	Informant 6
We see an example of this in Informant 1’s statement: “I think the current deployment [NORTAD 3] has been characterized by people who are in positions here at home, and then they are preparing for deployment. That’s what I think has distracted from focusing on their mission, because they haven’t had time to think ahead because they have another position they’re supposed to fill while preparing for the deployment.”	Informant 1

The first reason for the discontinuity in the focus on learning may be owed to the extent to which new tasks and new missions are prioritized, affecting the potential of gaining insight from NORTAD 2.

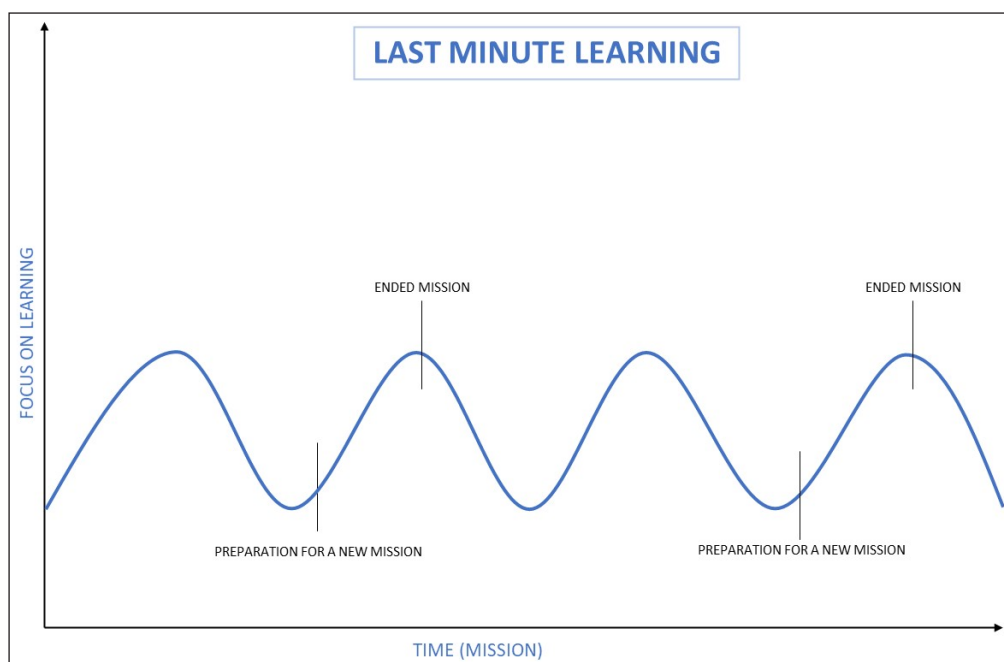


Figure 1 Last-minute learning demonstrated as being steered by situational factors.

In order for learning to be called “organizational,” knowledge must somehow manifest itself within the organization so that it is not limited to individuals (Argyris & Schön, 1978; 1996; March, 1999). However, we see little evidence of organizationally entrenched processes to share competence and achieve organizational learning. Informant 6’s desire to be included earlier in the planning phase of new missions may be one way of anchoring experience transfer in the organization. The other reason for why the focus on learning is not continuous is that there was uncertainty regarding positions and contracts when personnel returned home from Mali.

Many started in new positions. Informant 1, for example, held four different positions throughout the year he was deployed in Mali, creating uncertainty regarding his position when he returned to Norway. Also, several informants report that new positions and a hectic everyday life impacted the potential for learning after NORTAD 2. Based on this, we see a preference in the force protection group to continue doing the things that they have always done, or to do more of what the force protection group is already doing. The group therefore misses out on the double-loop learning required to address more fundamental reasons why problems or challenges arise (Argyris & Schön, 1978; 1996).

How the force protection group learns in single-loop learning is illustrated by the last-minute learning model. In the figure below, we see an illustration of the model in which the single-loop learning of the force protection group occurs in the bottom points, representing the time between operations. Nevertheless, it is important to emphasize that single-loop learning is not exclusively negative. Single-loop learning will be necessary as one is often required to correct errors and discrepancies, something the force protection group does, before one can start a process of preventive work. However, double-loop learning facilitates this through a more fundamental form of change (Argyris & Schön, 1978). This is the equivalent to the concept of exploration as proposed by March (1991). In order to achieve a continuous focus on learning, one may nevertheless attempt to avoid the focus disappearing completely between operations.

It is possible that this goal can be achieved by facilitating processes that lead to learning. This may involve, for example, establishing routines for documentation and experience transfer, holding on to personnel, and thus competence, and providing greater reassurance regarding position. This does not mean that the force protection group should stop the already-established and effective learning processes, but that it is beneficial to double-loop learning within the group (Argyris & Schön, 1978).

Figure 2 illustrates this by showing how a declining focus on learning is reflected on an earlier constant (marked with a red line). In this way, the competence and knowledge gathered through the mission will not disappear. Indeed, it can be further developed between operations; the focus on learning, marked with green line, can continue at the level enjoyed when preparations for new missions are initiated. Such a focus, in conjunction with new missions, may also increase as a result of a greater emphasis on learning in general. While the focus on learning will both spontaneously increase and decrease, this could nevertheless lead to a continuous focus on learning in the force protection group. This accords with the recommendations of Torgersen et al. (2020).

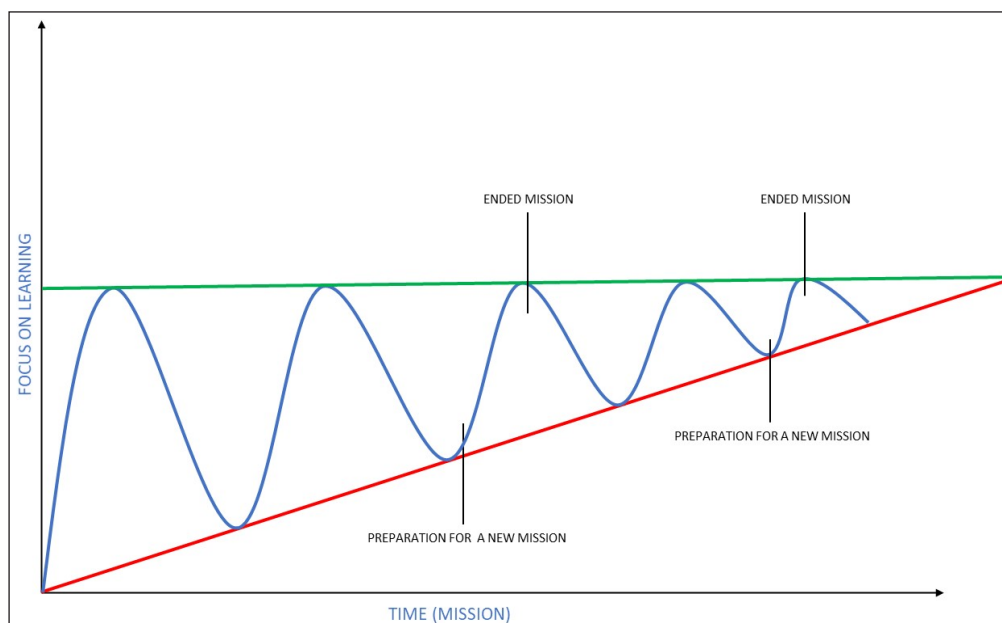


Figure 2 Conceptual model of ideal, continuous learning.

This can be implemented such that the personnel who go to Mali are carefully selected precisely to share competence with their respective departments when they return, so that the force protection group will assimilate the knowledge gained. Another positive aspect is that new personnel, even personnel from other air wings, are also being deployed. As well as hiring more of the operators only on temporary contracts in Mali, this will ameliorate uncertainty regarding positions. This can ensure that expertise remains in the force protection group and that learning after international operations receives greater attention.

CONCLUSION

The findings of the current study confirm that military organizations need to address both formal and informal processes so that experience gained can contribute to a process of continuous learning (O'Toole & Talbot, 2011; Dyson & Pashchuk, 2022; Dyson, 2020; Maarten et al., 2022; Harig, 2020; Coticchia & Moro, 2016).

This study shows that the force protection group learns primarily through a high focus on formal skill learning, including operational- and relation-oriented debrief as part of the holistic debrief. Learning, that is, must be linked to the operational context, so that experiences from one context can be automatically transferred to another, in line with the perspective of Dreyfus and Dreyfus (2009). Personnel also learn through communities of practice where experience-sharing occurs informally and a form of situated learning takes place. Learning through communities of practice shows that the single individual is the initiator both of the sharing and the preservation of knowledge. Through the high-performance culture, we see a consistent desire to constantly develop and improve. The high performance culture that we have identified may however be an obstacle: one may choose not to share or question one's opinion for fear of seeming less competent within the group. Finally, we see the force protection group learning through what we call last-minute learning, when learning receives extra attention shortly before new missions.

The last result shows how the force protection group learns through last-minute learning (experience-sharing performed without the support of any deliberate routine, commonly on the initiation of a new mission). This is sporadic process, meaning an intermittent focus on learning.

This study has identified two main reasons why last-minute learning occurs. The first cause is the focus on new missions; it would appear that these take so much attention that there is no time for formal learning processes after the completion of the previous mission, or that such processes are simply not prioritized. The second cause is the dismissal of personnel and uncertainty among personnel regarding their positions. Staff spend a lot of energy and time pondering either their position or role while being deployed, and whether they'll get their old positions back when they return home at the end of the mission.

In addition, some of the competence acquired from deployments in Mali may be lost because personnel are not offered new contracts when they return home. These aspects turn out to be recurring when new missions emerge. We therefore see that last-minute learning causes the force protection group's learning processes to lean towards single-loop learning (Argyris & Schön, 1978). The informants report that in the aftermath of NORTAD 2, they made the same mistakes as before, and that the focus on learning felt reactive when preparing for NORTAD 3.

FURTHER WORK

We find that manning and time pressure also contribute to the emergence of last-minute learning. A follow-up study should look into how force protection could develop from what is demonstrated in Figure 1 into that illustrated in Figure 2. This would not only benefit the force protection, but other military organizations with deployment and rotation of personnel.

Further studies could offer another interesting perspective by considering how the force protection group learns when deployed in Mali. Our discussion about learning in the wake of NORTAD 2 could have taken a different direction if we had looked at how and what the personnel learned during the operation. The study also shows that the time aspect is important, so a study covering a longer duration would be particularly useful for looking at potential development between different operations.

We would like to thank Ulf Egeberg for translating this article and Anders Nielsen for additional proof reading.

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Martin Gaard Grunne

Lieutenant, Force Protection Battalion, 132AW Ørland, Norway

Christian Robbins

Lieutenant, Force Protection Battalion, 132AW Ørland, Norway

Kåre Inge Skarsvåg orcid.org/0000-0001-7662-2357

Major, Norwegian Defence University College/Royal Norwegian Airforce Academy, Trondheim, Norway

Trygve Steiro orcid.org/0000-0002-3024-4263

Nord University, Business School, Trondheim, Norway; Norwegian & University of Science and Technology, Department of Teacher Education, Trondheim, Norway

REFERENCES

- Antonacopoulou, E., Moldjord, C., Steiro, T. J., & Stokkeland, C.** (2019a). The New Learning Organisation: Part I – Lessons from the Royal Norwegian Air Force Academy. *The Learning Organization*, 2019. DOI: <https://doi.org/10.1108/TLO-10-2018-0160>
- Antonacopoulou, E., Moldjord, C., Steiro, T. J., & Stokkeland, C.** (2019b). The New Learning Organisation: PART II – Lessons from the Royal Norwegian Air Force Academy. *The Learning Organization*, 2019. <https://www.emeraldinsight.com/doi/full/10.1108/TLO-10-2018-0160>. DOI: <https://doi.org/10.1108/TLO-10-2018-0160>
- Argyris, C., & Schön, D. A.** (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley Publishing Company.
- Argyris, C., & Schön, D. A.** (1996). *Organizational learning II: Theory, method and practice*. Reading, MA: Addison-Wesley.
- Boddy, C. R.** (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, 19(4), 426–432. DOI: <https://doi.org/10.1108/QMR-06-2016-0053>
- Catignani, S.** (2014). Coping with knowledge: Organizational learning in the British Army? *Journal of Strategic Studies*, 37(1), 30–64. DOI: <https://doi.org/10.1080/01402390.2013.776958>
- Coghlan, D., & Brannick, T.** (2010). Introducing action research. In *Doing action research in your own organization* (pp. 3–17). Newbury Park: SAGE.
- Coticchia, F., & Moro, F. N.** (2016). Learning from others? Emulation and change in the Italian Armed Forces since 2001. *Armed Forces and Society*, 42(4), 696–718. DOI: <https://doi.org/10.1177/0095327X15626725>
- Department of the Army.** (1993). *A leader's guide to after action Review* (TC25-20). Washington, DC.
- Dreyfus, H., & Dreyfus, S.** (2009). Mesterlære og eksperters læring. In K. Nielsen, & S. Kvale (Eds.), *Mesterlære – Læring som sosial praksis* (4. utg., 52–69). Oslo: Gyldendal Norsk Forlag AS.
- Dyson, T.** (2020) A revolution in military learning? Cross-functional teams and knowledge transformation by lessons-learned processes. *European Security*, 29(4), 483–505. DOI: <https://doi.org/10.1080/09662839.2020.1795835>
- Dyson, T., & Pashchuk, Y.** (2022). Organisational learning during the Donbas War: The development of Ukrainian Armed Forces lessons-learned processes. *Defence Studies*, 22(2), 141–167. DOI: <https://doi.org/10.1080/14702436.2022.2037427>
- Harig, C.** (2020) Learning to fight in UN peacekeeping. *Defence Studies*, 20(1), 39–60. DOI: <https://doi.org/10.1080/14702436.2019.1704177>
- Filstad, C.** (2010). *Organisasjonslæring – fra kunnskap til kompetanse*. Bergen: Vigmostad & Bjørke AS.
- Filstad, C.** (2017). Ledelse for kompetanse og kompetent ledelse. In T. Heier (Ed.), *Kompetanseforvaltning i Forsvaret* (31–49). Bergen: Vigmostad & Bjørke AS.
- Foley, R. T., Griffin, S., & McCartney, H.** (2011). “Transformation in contact”: Learning the lessons of modern war. *International affairs*, 87(2), 253–270. DOI: <https://doi.org/10.1111/j.1468-2346.2011.00972.x>
- Folland, R.** (2009). *Holistic debriefing: A paradigm shift in leadership*. Maxwell, Alabama: Air Command And Staff College Air University.

- Gentile, G. P.** (2009). 'Learning, Adapting and the Perils of the New Counter-insurgency'. *Survival*, 51(6) (Dec. 2009–Jan. 2010), 189–93.
- Haga, L. P., & Maaø, O. J.** (2018). *Forsvarets doktrine for luftoperasjoner*. Trondheim: Skipnes Kommunikasjon AS.
- Jacobsen, D. I.** (2015). *Hvordan gjennomføre undersøkelser?* (3. ed) Oslo: Cappelen Damm AS.
- Johannessen, A., Tufte, P., & Kristoffersen, L.** (2006). *Introduksjon til samfunnsvitenskapelig metode* (3. utg.). Oslo: Abstrakt forlag AS.
- Kjeldstadli, K.** (2000). *Fortida er ikke hva den en gang var* (2. ed). Oslo: Universitetsforlaget AS.
- Kvale, S., & Brinkmann, S.** (2009). *Interviews: Learning the craft of qualitative research interviewing*. Newbury Park: SAGE.
- Lave, J.** (2009). Læring, mesterlære, sosial praksis. In K. Nielsen, & S. Kvale (Eds.), *Mesterlære – Læring som sosial praksis* (4. ed., pp. 37–51). Oslo: Gyldendal Norsk Forlag AS. DOI: <https://doi.org/10.7146/nu.v37i1.7255>
- Lien, D. O., & Skarsvåg, K. I.** (2012). *God veiledning krever praktisk klokskap. En studie av hvordan god veiledningspraksis utvikles blant veilederne på lederutviklingsprogrammet Base Camp ved Luftkrigsskolen* (Master thesis, Handelshøgskolen i København/ Høgskolen i Nord- Trøndelag).
- Maarten, P. B., Martijn, W. M. K., & Frans, P. B. O.** (2022). A Tale of Two Mosuls, The resurrection of the Iraqi armed forces and the military defeat of ISIS. *Journal of Strategic Studies*, 45(1), 96–118, DOI: <https://doi.org/10.1080/01402390.2019.1694912>
- Malterud, K., Siersma, V. D., & Guassora, A. D.** (2015). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. DOI: <https://doi.org/10.1177/1049732315617444>
- March, J. G.** (1991). Exploration and exploitation in organisational learning. *Organisation Science*, 2(1), 71–87.
- March, J. G.** (1999). Introduction. In J. G. March (Ed.), *The pursuit of organizational intelligence*. Oxford: Blackwell.
- March, J. G., & Levitt, B.** (1999). Organizational learning. In J. G. March (Ed.), *The pursuit of organizational intelligence* (pp. 75–100). Oxford: Blackwell. DOI: <https://doi.org/10.1287/orsc.2.1.71>
- Marcus, R. D.** (2019). Learning “under fire”: Israel’s improvised military adaptation to Hamas tunnel warfare. *Journal of Strategic Studies*, 42(3–4), 344–370. DOI: <https://doi.org/10.1080/01402390.2017.1307744>
- Moldjord, C.** (2007). Betydningen av å dele erfaringer i operative miljøer. I C. Moldjord, *Liv og lære i operative miljøer - “tøffe menn gråter!”*. Bergen: Vigmostad & Bjørke AS.
- Moldjord, C., & Fredriksen, P.** (2017). Debriefing – strategisk læringsverktøy i operative organisasjoner. I T. Heier, *Kompetanseforvaltning i Forsvaret* (ss. 219–232). Bergen: Vigmostad & Bjørke AS.
- Morgan, G.** (1986). *Images of organization* (1st ed.). Thousand Oaks, CA: SAGE.
- Morgan, G.** (2011). Reflections on images of organization and its implications for organization and environment. *Organization & Environment*, 24(4), 459–478. DOI: <https://doi.org/10.1177/1086026611434274>
- NATO Lesson Learned Handbook.** (2016). Lisbon: Joint Analysis and Lessons Learned Centre. Third ed. 81.
- Nielsen, K., & Kvale, S.** (2009). Mesterlære som aktuell læringsform. In *Mesterlære – Læring som sosial praksis* (4. ed., pp. 17–34). Oslo: Gyldendal Norsk Forlag AS.
- Nonaka, I., & Takeuchi, H.** (1995). *The Knowledge-creating company*. New York, NY: Oxford University Press.
- Nonaka, I., Toyama, R., & Konno, N.** (2000). SECI, ba and leadership: a unified model of dynamic knowledge creation. *Knowledge Management: Critical Perspectives on Business and Management*, 2(317), 16–29.
- Nonaka, I., Toyama, R., & Konno, N.** (2005). SECI, Ba, and leadership: A unified model of dynamic knowledge creation. *Knowledge Management: Critical Perspectives on Business and Management*, 2(317), 16–29.
- O’Toole, P., & Talbot, S.** (2011). Fighting for knowledge: Developing learning systems in the Australian army. *Armed Forces & Society*, 37(1), 42–67. DOI: <https://doi.org/10.1177/0095327X10379731>
- Patton, M. Q.** (1990). *Qualitative evaluation and research methods*. Newbury Park: SAGE.
- Polanyi, M.** (1966). *The Tacit Dimension*. Garden City, NY: Doubleday and Co.
- Polanyi, M.** (1967). *The tacit dimension*. London: Routledge & Kegan Paul.
- Repstad, P.** (1993). Mellom nærhet g distanse. *Kvalitative metoder i samfunnsfag*. Oslo: Universitetsforlaget.
- Schön, D.** (1983). *The reflective practitioner – How professionals think in action*. New York: Basic Books.
- Torgersen, G. E., Firing, K., & Steiro, T.** (2020). Make the invisible enemy visible: Military debriefing in the time of unforeseen. In S. Rawat, O. Boe, & A. Piotrowski (Eds.), *Military response to post-pandemic reconstruction* (pp. 637–643). Hyderabad: Rawat Publications.

TO CITE THIS ARTICLE:

Grunne, M. G., Robbins, C., Skarsvåg, K. I., & Steiro, T. (2023). Learning in the Force Protection Environment between International Operations: Last-Minute Learning. *Scandinavian Journal of Military Studies*, 6(1), pp. 11–23. DOI: <https://doi.org/10.31374/sjms.148>

Submitted: 11 March 2022

Accepted: 08 March 2023

Published: 20 April 2023

COPYRIGHT:

© 2023 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Scandinavian Journal of Military Studies is a peer-reviewed open access journal published by Scandinavian Military Studies.