

Military Learning in the Danish Army: Helmand 2006-2010

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Abstract

During the past two decades, Denmark has consistently participated in international military operations. The Danish Armed Forces has since 2002 been engaged in Afghanistan, which stands as the longest military engagement in the country's history. The need for understanding how the Danish military learned from its experiences during this period is, therefore, evident.

This thesis focuses on the Danish Army's deployments of Teams 1-10 (2006-2010) to the British-led Task Force Helmand to assess the Danish Army's ability to achieve organizational learning and pursue its military objectives. The thesis argues that despite the perception of a successful collaboration, both concerning organizational learning and military objectives, the Anglo-Danish collaboration has negatively impacted the Danish Army.

An analytical framework is developed to explore learning through three stages: 1) event + short-term interpretation 2) mid- to long-term event interpretation 3) organizational learning. The thesis concludes that the first stage of learning occurred in Helmand as a result of addressing issues in the operational environment. Vital for the second stage in the learning process is that the Danish Army recognized that it was taking too long to utilize the knowledge in written reports and, thus, made a shift to oral seminars as a more efficient way of transmitting knowledge. However, the turn to verbal knowledge exchange meant a failure of capturing and institutionalizing knowledge within the organization. Consequently, any documentation of lessons learned from this period barely exists. As a result, organizational learning, the third stage of the analytical framework, did not emerge. This thesis concludes that if the Danish Army is to achieve organizational learning in a complex and demanding environment, the organization must be able to address immediate operational challenges while ensuring the institutionalization of new knowledge.

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I. Introduction

During the past two decades, Denmark has consistently participated in international operations, as the use of military force has become a natural tool of the country's foreign policy (Søby Kristensen, 2013, p. 15). With deployments to the Balkans, Iraq, Afghanistan, and Libya, scholars note that Denmark's position in the international community altered from one of neutrality to having become a "warrior nation" (Søby Kristensen, 2013; Svendsen & Halskov, 2012; Jakobsen, 2000). As Denmark continues to engage in conflicts of significantly increased intensity and scope, it emphasizes the need for understanding how the Danish Armed Forces learns from their experience in these operations (Kristensen & Larsen, 2010). The Danish Armed Forces has since 2002 been engaged in Afghanistan and it stands as the longest military engagement in the country's history. The need for understanding how the Danish military learned during this period is, therefore, evident.

Defining for the engagement in Afghanistan was that mission objectives, geographical deployment and the conditions for units deployed varied to such a degree that it is difficult to draw a general conclusion. This thesis provides a more precise insight into Danish military learning in Afghanistan by focusing on the Danish Army's deployments of Teams 1-10 (2006-2010) to the conflict-ridden Helmand province. The majority of the Danish Army was under the command of the British-led Task Force Helmand. Britain was the preferred partner for the Danish Defense Command and Ministry of Defense due to several factors. The U.S. Armed Forces were perceived as being too difficult to integrate with due to their aggressive strategic culture and technological incompatibility. The Germans and the Nordic countries of Norway, Sweden and Finland were deemed too restrained and potentially unwilling and incapable of providing the necessary combat support in cases of emergency (Rasmussen, 2011, pp. 29–30). The choice fell on the British as they aligned with Danish operational needs and previous experiences in Iraq had proven positive. The Danish government decided that for the British to apply Danish military force efficiently, it was deemed necessary that Danish troops were made available to the British without caveats (Rasmussen, 2011, p. 31). However, as the Danish troop contribution to British Task Force Helmand only consisted of about 5 % of the task force's total strength, it was clear that the Danish forces would operate within an environment defined by the British (Farrell, Osinga, & Russell, 2013, p. 138).

The Danish ability to operate within a British framework in Helmand became the benchmark for successful learning in the Danish Army. While the Danish perceived the collaboration as successful (Jakobsen & Thruelsen, 2011, p. 99), the heightened concern by Danish government and Army with creating successful Anglo-Danish relations caused a disregard for internal learning processes in the Danish Army. Moreover, the collaboration has negatively impacted the Danish Army's ability to achieve its military objectives in Helmand.

This thesis introduces an analytical framework that explores learning processes in the Danish Army through three stages: 1) event + short-term interpretation 2) mid- to long-term event interpretation 3) organizational learning (see discussion of analytical framework in chapter 2). These stages vary depending not only on their temporal existence but also to the extent to which they affect learning within an organization. The thesis concludes that the first stage of learning occurred in Helmand to address issues in the operational environment through short-term problem solving. New knowledge was distributed through informal learning systems that depended on the social interactions of individuals that shared their experiences and organizational knowledge.

Fundamental changes to the formal learning system defined the second stage of learning. The military recognized that it was taking too long to utilize the knowledge in written reports and, thus, made a shift to oral seminars as a way of transmitting knowledge. However, the turn to verbal knowledge exchange meant a failure of capturing knowledge within the organization, as there was no documentation of lessons learned. The change from written to oral lessons learned thereby drastically impaired the capture of knowledge within the Danish Army as knowledge remained only with personnel that was directly involved. As a result, organizational learning (Stage 3) has not emerged from the Danish deployments to Helmand.

Organizational learning depends on the collection, transfer, and integration of new knowledge (Serena, 2011, pp. 15–17). This thesis, therefore, concludes that if formal learning systems are to aid the Danish Army in a complex and demanding environment, these systems must be able to address immediate operational challenges while ensuring that knowledge generated in informal learning systems is captured within the organization. Intriguingly, while the circumstances were different, a failure

of organizational learning and achievements of its military objectives equally occurred in the British Army during this period (Catignani, 2012, 2014).

Research Question

To what extent has organizational learning emerged in the Danish Army during deployments in the Helmand province from 2006-2010?

Organizational learning is defined as *the institutionalization of knowledge or understanding that leads to new institutional norms, doctrine, routines, and procedures in ways designed to minimize previous gaps in performance and maximize future successes* (Catignani, 2014, p. 31; Downie, 1998, p. 22). This concept is explored in-depth in the literature review.

The following steps will answer the research question:

- 1) Describing conditions for learning in military organizations with a focus on the literature on organizational learning, military innovation, and adaptation.
- 2) Analyzing aspects of the Danish deployments to the Helmand province where the Danish Army had opportunities to learn.
- 3) Assessing how the Danish military learning experience is explained by factors found in the literature on organizational learning, military innovation, and adaptation.

Aim, Scope and Limits of the Study

The research on Danish military learning during deployments to the Helmand province has been limited, and only a few authors have engaged with the subject (Andersen, Vistisen, & Schøning, 2016; Rasmussen, 2011, 2013; Jakobsen & Thruelsen, 2011, Kristensen & Larsen, 2010, Larsen, 2013). While Andersen et al. compellingly demonstrate the central issues that caused the failure of documentation within the Danish Army, the analysis of this thesis explain the multiple processes that lead to these failures.

The analytical framework applied in this thesis traces knowledge produced in the battlefield to its organizational impact or lack thereof. The focus has, therefore, been on how knowledge can change behavior. However, the time-limited duration of

the research has meant that such change has only been explored on the background of publically available research and through interviews with a small group of officers of the Danish Army. While a level of insight is achieved through analyzing the accessible information and identifying important factors, it would be pertinent to develop this research further. Such development would require additional interviews with officers deployed to Helmand and key decision-makers involved with training and education in the Danish Army during this period. Further research may come to the same conclusion as this thesis but it would surely nuance the findings and their cause.

Subject Delimitations

To address the complex scope of the North Atlantic Treaty Organization's (NATO) operations, the alliance developed a concept of crisis management and state-building, which became known as the 'comprehensive approach' (Williams, 2011, p. 65). The comprehensive approach aims to combine political, civilian and military instruments requiring "states, international organizations and non-governmental organizations to contribute in a concerted effort" (NATO, 2016). The comprehensive approach developed out of the Concerted Planning and Action (CPA) initiative and became part of alliance discussions as a result of Danish efforts in 2004 (Williams, 2014). For Denmark, the comprehensive approach in Afghanistan has meant a civil-military approach between the Ministry of Foreign of Affairs and the Ministry of Defense and contributions to the Provincial Reconstruction Team in Helmand (Thruelsen, 2008). While briefly touching upon aspects of this subject, this thesis has refrained from exploring how NATO's comprehensive approach affected the Danish Army in Helmand.

Thesis Structure

The first chapter introduced the subject alongside the research question, the aim of the thesis and the subject's limitations. The second chapter provides a review of the literature relevant to the subject matter. By introducing essential concepts within military innovation, adaptation, and organizational learning, an analytical framework is established that synthesizes elements of each field. Chapter three presents the methodology of this thesis and includes reflections on conducting qualitative research into military affairs. Chapter four is the first of three chapters that applies the analytical framework to the empirical case. The analysis begins with providing an overview of the situation in Denmark by focusing on Danish politics, public support, and media coverage during the deployments to Helmand. The chapter concludes by arguing how these factors influenced the Danish Army. Chapter five studies the operational activities of the Danish teams deployed to Helmand from 2006-2010. Also, Danish-British relations are explored to understand its impact on the Danish Army's capability to learn. In chapter six, Danish military culture explains how members of the Danish Army engage with learning. Along with the empirical evidence collected in the interviews, challenges within formal and informal learning systems and their consequences are identified. Chapter seven discusses the importance of developing research on military learning culture in peacetime and contemplates the inherent pitfalls in experience-based learning. The conclusion is presented in chapter eight.

II. Literature Review

The chapter begins with reviewing the literature on organizational learning to understand the theoretical foundation for how and why organizations change praxis. The chapter then follows the development of military innovation studies, a field that explores the unique circumstances of learning in military organizations. Positions within military innovation studies have mainly focused on innovation as the result of top-down decisions. However, such perspective provides only a partial answer to why militaries learn. The subsequent emergence of military adaptation nuances changes to military learning through bottom-up contributions by soldiers adapting to challenges in their operational environment. The last section illustrates that while each area of research contributes with insights into how learning occurs in military organizations, none of the disciplines can independently explain the complex environment and processes that military organizational learning occurs within. After the literature review, the analytical framework for this thesis is introduced.

Organizational Learning

The literature on organizational learning has proven a powerful tool for understanding why some organizations develop new capabilities while others do not (Bandura, 1977; Conner, 1991; Conner & Prahalad, 1996; Cyert & March, 1963; Douglas, 1986; Duncan & Weiss, 1979; Easterby-Smith & Lyles, 2011; Elkjaer, 2004; Fiol & Lyles, 1985; Grant, 2014; Holan & Phillips, 2004; Huber, 1991; Kogut & Zander, 1996; Levitt & March, 1988; March, 1991; Miles, Miles, Perrone, & Edvinsson, 1998; Nahapiet & Ghoshal, 1998; Nelson & Winter, 2004; Schulz, 1998, 2001; Spender & Grant, 2014). While the field is extensive and reviewing the entire literature on organizational learning is beyond the scope of this thesis, two main traditions are prevalent (Holan & Phillips, 2004, p. 1604). The first tradition is a behavioral view on learning as the systematic transformation of “structures, rules, standard operating procedures (SOPs) and routines” (Catignani, 2014, p. 34). The second tradition is a cognitive view on learning as the systematic transformation to the shared understandings of organizational members (Daft & Weick, 1984). In both traditions, an organization’s ability to learn depends on the utilization of “repositories of knowledge” and the development of new competencies from the exploitation of these repositories (Cyert & March, 1963; March, 1991; Huber, 1991; Crossan, Lane, & Djurfeldt, 1995; Downie, 1998). Repositories of knowledge consist of knowledge that

has been institutionalized in the organization. The modification to the repositories of knowledge is a prerequisite for organizational learning. For military organizations, repositories of knowledge, which may be equated to organizational memory, is stored in doctrine and formal learning systems (Farrell, 2010, p. 572). Good organizational memory facilitates awareness of core competencies and established routines (Levitt & March, 1988). Military organizations with good organizational memory will, therefore, be averse to change as its preservation of proven methods reduces the desire to seek alternatives (Russell, 2011, p. 25). When situations arise in which an organization's formal learning systems are inadequate, informal learning systems begin to emerge (O'Toole & Talbot, 2010, p. 43).

Informal Learning Systems: The Role of Social Networks

These informal learning systems revolve around a social theory of learning. The theory states that learning is a social process that intertwines with organizational members' informal social networks (Elkjaer, 2004; O'Toole & Talbot, 2010). The importance of social learning derives from the unique knowledge gained from the observation and participation in a situated context (Bandura, 1977; Lave & Wenger, 1991). In his work on organizational learning in the British Army, Sergio Catignani demonstrates that Army personnel often relied on informally sharing knowledge through their social networks. Sharing occurred during their pre-deployment preparations and deployments "in order to make up for the deficiencies experienced with the organization's formal learning systems" (Catignani, 2014, p. 31). While the informal knowledge sharing acts as a temporary solution, the inability to institutionalize such knowledge meant that the British Army became prone to "organizational forgetting" (Catignani, 2014, p. 32). The consequence was that troops had to 'relearn lessons learned' during deployment and once personnel left the organization, the knowledge was often permanently lost. Catignani emphasizes while informal knowledge sharing allowed units to adapt their tactics, techniques, and procedures (TTPs) to the operational environment, incorporating informal learning systems into the organization's knowledge repositories is required if the newly acquired adaptation is not to be immediately forgotten (Catignani, 2014, pp. 58–59).

Chad Serena found similar findings in his study on the U.S Army during Operation 'Iraqi Freedom' (Serena, 2011). Serena found that while members of the U.S. Army adapted in many circumstances and subsequently shared these adaptations

through their social networks, the newly gained knowledge remained fleeting in the organization. Serena demonstrates that it requires a robust system for documentation of lessons-learned for new knowledge stemming from adaptation to be institutionalized and contribute to the organization.

Robert Foley's case study of the German Army during World War I pinpointed crucial elements for the flow of knowledge in the organization that allowed "horizontal innovation" (R. T. Foley, 2012). Foley defines horizontal innovation as information exchange between units that result in new, informal doctrine that is formed by units learning from one another in contrast to a centrally produced doctrine (R. T. Foley, 2012, p. 803). This process was possible due to a decentralized structure that allowed decision-making to occur at the frontlines where officers could adapt according to the operational environment. Officers from different units then shared their experiences with each other to establish best practice. The horizontal transfer of knowledge through social networks led to an application, which consequentially constituted a radically different approach to German battlefield conduct. As a result of the German Army's capacity to modify its repositories of knowledge, an official doctrine emerged that integrated the ad hoc lessons-learned programs developed in 1916-18 (R. T. Foley, 2012, p. 823). To summarize, "organizational learning is the sum of formal and informal processes of knowledge creation, and the central dynamic is how to capture that knowledge" (Kollars, 2015, p. 534).

The literature on organizational learning has long been referenced in the work of military scholars because the field's theoretical concepts are also applicable to military organizations as demonstrated above (Catignani, 2014; Downie, 1998; R. T. Foley, 2012; Griffin, 2017; Hoffman, 2015; Nagl, 2005; Posen, 1984; Serena, 2011; Sinno, 2008). Applying theories of organizational learning in militaries began in the 1980s and 1990s, where a new stem of social science engaged with how and why military learns over time (Grissom, 2006, pp. 905–906).

Military Innovation Studies

The work of Barry Posen (1984) in *The Sources of Military Doctrine* and his methodology of studying interwar innovation in Britain, Germany, and France is attributed with the emergence of the field of military innovation studies. While the definition of military innovation is widely discussed among authors, there exists consistency on specific parameters. Military innovation involves a change to military operation praxis that must be “significant in scope and impact” while creating “greater military effectiveness” (Grissom, 2006, p. 907). Four schools of theory have argued what enables military innovation. These schools focus on civil-military relations, inter-service politics, intra-service competitions and organizational culture as primary drivers of innovation.

The Civil-Military School of Military Innovation

The Sources of Military Doctrine by Barry Posen codified the civil-military model. Posen argued that the interaction between militaries and civilian leaders was the source of military innovation. The civilian leadership is necessary as an external catalyst for change as military organizations are disinclined to alter their behavior (Posen, 1984, pp. 232–235). Deborah Avant supported such model in her review of British and American performances in counterinsurgency operations. Avant found that civil-military relations affected each militaries capacity to overcome obstacles in warfare (Avant, 1994, 1993). Similar occurrences were found in the work of Kimberly Zisk (1993) and her study of Soviet doctrinal developments.

The Inter-service School of Military Innovation

This school of military innovation argues that innovation occurs between the military services of a state. The core driver for inter-service innovation is resource scarcity. The possibility for innovation arises when a mission area emerges, in where none of the military services are in a dominant position. The services will compete to develop new capabilities to address the contested mission area, in the belief that the winner will require additional resources (Grissom, 2006, pp. 910–911). Scholars in the field have mainly focused on inter-service innovation in Cold War weapons program studies (Armocost, 1969; Sapolsky, 1972; Bacevich, 1986; Cote, 1996).

The Intra-service School of Military Innovation

The intra-service school of innovation stems from the work of Stephen P. Rosen (1988, 1991). His book *Winning the Next War* stands as a seminal work for understanding how the alignment of senior military leaders and institutional structures are vital for creating intra-service innovation (Rosen, 1991). Rosen argued that innovation was the result of senior officers developing “a new theory of victory, an explanation of what the next war will look like and how officers must fight if it is to be won” (Rosen, 1991, p. 20). Advocates of the new theory partake in an ideological struggle where influential midlevel officers are highly sought after, as they are vital in requiring new allies. These officers, once converted, are given opportunities for advancement to lead them to the top of their service. Their newfound position allows establishing a service that adheres to the new approach. The alignment of these elements accomplishes military innovation (Rosen, 1991, pp. 20–21).

The Cultural School of Military Innovation

According to the cultural school of military innovation, organizational culture sets the context for how military innovation occurs, fundamentally shaping how military organizations react to technological and strategic opportunities (Grissom, 2006, p. 916). Culture is defined as “intersubjective beliefs about the social and natural world that define actors, their situations, and the possibilities of action” (Farrell & Terriff, 2002, p. 7). Theo Farrell and Terry Terriff are prominent scholars in the field, and their work has focused on identifying factors within organizational culture that allow for military innovation to occur. One of these factors is the capability of a senior leader to reshape culture and, thus, steer organizational behavior towards innovation. Another factor is the impact of external shocks that can change organizational conditions and facilitate an opportunity for innovation. How cross-national military culture influence each other and create an incentive for innovation, is also a factor present in their work (Farrell & Terriff, 2002, pp. 8–10). Once a culture has been set, it defines what avenues have primacy and what avenues are ignored. The importance of organizational culture, therefore, lies in its ability in mapping the course and content for military innovation (Farrell, 2005, pp. 176–177).

From Military Innovation to Adaptation

Most models of military innovation emphasize that military organizations are bureaucratic, rigidly hierarchical and change-resistant (Kollars, 2015, p. 534). While each position contributes military innovation to different causes, they all suffer from a disproportionate focus on top-down processes. In the 2006 article *The Future of Military Innovation Studies* Adam Grissom highlights that while the field of literature on military change is extensive and insightful, the disregard for bottom-up processes has left a gap in the research on military organizational learning (Grissom, 2006, p. 930). The challenges posed to missions in Iraq and Afghanistan has fuelled new research within the field of military innovation studies. This new research focuses on bottom-up and horizontal perspectives, which has contributed to a nuanced understanding of how change occurs in military organizations. The terminology that developed from this work has been labeled *military adaptation* (Brooks & Stanley, 2007; Farrell, 2010; King, 2010; R. Foley, Griffin, & McCartney, 2011; Serena, 2011; Russell, 2011; Adamsky & Bjerga, 2012; R. T. Foley, 2012; Farrell et al., 2013; Catignani, 2012, 2014; Marcus, 2015; Kollars, 2015).

Similarly to military innovation, military adaptation engages with organizational learning theories where the process of knowledge creation and knowledge capturing are central themes present in the field. In research on military adaptation, the bottom-up perspective introduces a different take on how organizational learning occurs. It posits that there are two critical agents involved in the learning process: Those who do the adapting (the soldiers and units generating new knowledge in the area of operations), and those who do the adopting (the military organizations that collect and utilize the knowledge). The new research into military adaptation is aimed at explaining a number of phenomena: “how adaptation occurs; how organizations forget; why they learn only for the current war; and how they fail to capture knowledge developed in wartime” (Kollars, 2015, p. 534). The development of what constitutes military adaptation and selected research within the field are explored below.

Defining for the advancement of military adaptation is the work of Theo Farrell and Terry Terriff. In *Sources of Military Change* Farrell and Terriff introduced a distinction between military innovation and adaptation. According to these authors, innovation is the development of new military technology, tactics, strategies, and

structures while adaptation is the adjustment to existing military means and methods (Farrell & Terriff, 2002, p. 6). Farrell (2010) continued exploring military adaptation in *Improving in War*. In this work, Farrell argued that poor organizational memory and a decentralized organizational structure had permitted the British 52nd Infantry Brigade to adapt. Farrell provided one of the first studies to operationalize military adaptation and in it, adjusted his conceptualization of the concept. Military adaptation did not only include exploiting established competencies and capabilities by modifying TTPs or technologies to improve operational performance (Farrell, 2010, p. 569). Adaptation could also be the exploration of “new capacities by developing new modes and means of operations” (Farrell, 2010, p. 570). Such exploration that produced structural or doctrinal changes may become innovation (Farrell, 2010, p. 570).

In Farrell’s work with Frans Osinga and James A. Russell on *Military Adaptation in Afghanistan* adaptation was defined “as a change to strategy, force generation, and/or military plans and operations, undertaken in response to operational challenges and campaign pressures” (Farrell et al., 2013, p. 2). Force generation is a broad term that includes force levels, equipment, training, and doctrine. The definition, thus, involves changes in operational levels (military planning and conduct of operations) and changes to strategic levels of military conduct (strategy and mobilization of resources)(Farrell et al., 2013, p. 2). In other words, adaptation is a military’s response to its environment and how it alters its responses when facing its effects (Farrell et al., 2013, p. 137).

Russell’s study of U.S. counterinsurgency operations in 2005-2007 in the provinces of Anbar and Ninewa in Iraq aided in understanding the transition from military adaptation to innovation (Russell, 2010, 2011). Russell explored learning processes among American military units deployed to Iraq from 2005 to 2007. Russell noted that the process of adaptation began when military leaders who were given a degree of autonomy allowed them to react to changing circumstances in the local conditions by implementing new approaches to how units operated (Russell, 2010, p. 619). Some initiatives failed while other succeeded. Poor organizational memory allowed for these initiatives not to be quickly abandoned. The initiatives that successfully created an increase in operational efficiency were communicated to other military leaders, which built momentum for change. The result was the emergence of new organizational standards and operating procedures that became increasingly

applied by the units deployed in Iraq (Burton & Nagl, 2008). As these initiatives began involving increasingly more actors from different levels of the military chain of command, adaptation became innovation as new initiatives eventually became formalized into new SOPs and new military doctrine. This process fundamentally changed the nature of the U.S. military (Russell, 2011, pp. 8–18). While Russell’s argumentation aligns with Farrell’s distinction of adaptation and innovation, Russell importantly notes that the transition from adaptation to innovation could only occur as a result of the U.S. military succeeding in permitting the organization’s repositories of knowledge to be modified resulting in the exploitation of new capabilities.

Richard Duncan Downie (1998) and John Nagl (2005) similarly argued that military organizations must be capable of modifying the military’s organizational memory to allow military adaptation to become institutionalized and result in organizational learning. Downie explained that not one single factor alone could describe how military adaptation becomes military innovation. Downie used the performance of the U.S. Army in Vietnam, counterinsurgency programs in El Salvador in 1980s and the drug war in the Andean Ridge as case studies. Downie demonstrated through these case studies that the transition from adaptation to innovation only occurred when there was an alignment between external pressures, institutional factors and the organizational handling of newly acquired knowledge (Russell, 2011, p. 42). Drawing upon Downie’s framework, Nagl (2005) examined the performance of the U.S. Army in Vietnam and the British Army in Malaysia. Nagl demonstrated in his work on the Malaysian and Vietnam wars that the British Army succeeded because it was capable of achieving organizational learning while the U.S. Army failed because it was not (Russell, 2011, p. 43).

Although military adaptation is necessary for organizational learning, it is not sufficient for causing organization learning (Catignani, 2014, p. 31). For the newly acquired knowledge to become institutionalized lessons must be “widely accepted, shared, and practiced as standard procedure by members throughout the organization” (Downie, 1998, p. 24). It, therefore, seems pertinent to develop an analytical framework capable of addressing not only the external and internal factors that impact military adaptation but which also incorporates the learning process that influences how military organizations engage with knowledge. An organization’s capability to institutionalize new knowledge may subsequently lead to organizational learning. Such framework is introduced below.

Analytical Framework

This section begins with describing and assessing the applicability of an analytical framework that focuses on military adaptation. This framework is expanded to understand how a military organization such as the Danish Army engages with learning. The introduced frameworks consist of three stages of learning that trace how military adaptation can become institutionalized and create organizational learning. This framework will be applied to determine the extent of military learning as a result of the Danish Army's deployments to Helmand from 2006-2010.

Drivers & Factors of Military Adaptation

In *Military Adaptation in Afghanistan* Farrell, Osinga, and Russell establish a framework that consists of two drivers and four factors that shape military adaptation (Farrell et al., 2013, pp. 8–18).

When a campaign is confronted with a sufficiently severe threat, the pressure can create an incentive for strategic or operational change to occur. The most significant driver is operational challenges either in the form of intensification of existing or the rise of new challenges. Another significant driver is technological development, which can occur as a response to the operational challenges (Farrell et al., 2013, p. 3).

- **Operational Challenges:** What constitutes operational challenges varies but can include “intense combat over a protracted period, new enemy tactics, conducting operations at great strategic distance, operating in a demanding physical environment, having to depend on unreliable allies, and having to work with civilian partners to achieve campaign objectives” (Farrell et al., 2013, p. 9). For operational challenges to create change, the challenges must rise to such a level that they threaten the completion of military objectives or the campaign. However, the threat of failure is not in itself sufficient to create the change. At the operational level, the risk of failure must be recognized by military commanders and policy-makers (Farrell et al., 2013, p. 9). At the strategic level, operational challenges may only create change if there exists the capability of assessing military progress and adjust operations, strategies and force generation accordingly (Gartner, 1999). As seen in Iraq and Afghanistan, the effectiveness of counterinsurgency capabilities by the U.S and Great Britain were determined by the ability to acknowledge and adapt to operational challenges both on a strategic

and operational level (Serena, 2011; Farrell, 2010; Russell, 2010; Kahl, 2007; Ricks, 2007).

- **Technological Developments:** While operational challenges are crucial for creating conditions for change, technological developments and the emergence of new capabilities can cause or solve operational challenges. Technological development is, thus, another significant driver for military adaptation. According to Farrell, these drivers should be seen as existing in a symbiotic relationship (Farrell et al., 2013, p. 9). If the opponent acquires new technology or applies an alternative use of old technology, it can create new challenges (Farrell et al., 2013, p. 9). New opponent capabilities may, in turn, move militaries to respond to the threat through adaptation. Such response is likely to occur on an operational level initially. For adaptation to happen on a strategic level, it must be accompanied by doctrinal or organizational change (Farrell et al., 2013, p. 10).

In addition to adaptation drivers, Farrell et al. introduce four shaping factors. These factors are domestic and alliance politics, strategic culture, and civil-military relations. Each has a significant impact on the process of a military's response to operational challenges and technological developments. (Farrell et al., 2013, pp. 10–17).

- **Domestic Politics:** The impact of domestic politics on military adaptation is found in the relationship between policy-making and public support for military engagements (Farrell et al., 2013, p. 10). While public support is an important factor, domestic policy decisions do not necessarily correlate with the level of public support. Low public support in France, Britain, Italy, Spain, and Poland did not lead to policy decisions to reduce military commitment in Afghanistan as the troop contribution became increased in all the abovementioned countries (Kreps, 2010, p. 195). In the surveyed period Britain tripled its forces from 3,000 to 9,500 despite having the lowest public support among the largest NATO states (Farrell et al., 2013, p. 11). In Canada, the shift in the political climate changed the command structure and location of the Canadian military contribution to Afghanistan (Farrell et al., 2013, p. 297).

- **Alliance Politics:** As NATO leads the International Security Assistance Force (ISAF) mission in Afghanistan, alliance politics inevitably factors into how militaries cooperate. Alliances can become subject to “strategic compromise, deliberation processes, multinational command challenges, and burden-sharing problems” (Farrell et al., 2013, p. 13). As autonomy decreases for militaries, it is expected that alliance politics creates restraints that limit militaries capacity to adapt (Farrell et al., 2013, p. 14). Furthermore, the contribution of expeditionary forces by small states are influenced by their larger allies, as they determine what wars to fight and how to fight them (Farrell et al., 2013, p. 136).
- **Strategic Culture:** Strategic culture is “the sum of beliefs about the use of force that are shared by the military and policy communities of a state. Such beliefs, or norms, prescribe when and how military force may be used.” (Farrell et al., 2013, p. 14). Strategic culture can also define the impact of adaptation drivers such as technological developments. According to Farrell et al. strategic culture “frames how actors see the world, leading to a focus on some problems and neglect of others. Culture also frames the search for solutions. In this way, culture shapes what and how militaries learn.” (Farrell et al., 2013, p. 15). While these authors do not explicitly mention that they include military organizational culture as a subset of strategic culture, this author assumes such inclusion. Furthermore, if a state has a techno-centric strategic culture, it is likely to seek adaptive solutions in technology. The development of military adaptation will usually align with existing strategic culture. Adaptations that significantly challenge the prevailing culture will be difficult to achieve. Only a substantial military failure is likely to allow military adaptation to alter strategic culture (Farrell et al., 2013, p. 14).
- **Civil-Military Relations:** Civil-military relations have since the beginning of military innovation studies carried vital importance. There exist conflicts within this research, as some scholars argue that only military leaders possess the necessary knowledge and legitimacy to find and execute new methods (Avant, 1994). Another school explains that military organizations require civilian intervention in order create military change (Posen, 1984).

Farrell et al. calculate that in democracies, civilian leadership will inevitably have an operational effect on adaptation (Farrell et al., 2013, pp. 17–18).

Adjusting Drivers & Factors of Military Adaptation to the Research Question

According to Farrell et al. shaping factors “shape the process whereby states and militaries respond to imperatives and opportunities to adapt” (Farrell et al., 2013, p. 10). This thesis argues that these shaping factors not only influence a military and state’s response to adaptation but also shapes the incentive to how and when military organizations engage with knowledge management. Knowledge management is the development of an organization’s strategies for “storing, analyzing, accessing, disseminating, and distributing knowledge to support organizational goals, as well as enhance decision making and learning” (O’Toole & Talbot, 2010, p. 55). Farrell et al.’s shaping factors are, therefore, applied to the analytical framework of this thesis as an underlying influence to knowledge management processes. In addition, the adaptation drivers introduced in this section are not explicitly mentioned in the framework model as they are defined as the *event* element of the analytical framework, which will be explained below.

Knowledge Management: Three Stages of Learning

Knowledge management is vital to the process of applying existing and converting new knowledge into organizational learning. Based on the framework of Richard L. Daft and Karl E. Weick (1984) this thesis suggests three stages of knowledge management that captures the processes of knowledge creation and learning. The first stage is *event and short-term event interpretation*. Event is defined as the experience that units obtain on the battlefield as a result of operational challenges and technological developments. Short-term event interpretation consists of units reacting to their experience by producing immediate battlefield-based problem solving through the modification of existing organizational practices.

The second stage is *mid- to long-term event interpretation*. The temporal scope of the interpretation is expanded as a longer process of knowledge capturing, and organizational interpretation begins. The process commences with deployed units attempting to convey what they have experienced through formal learning systems responsible for capturing knowledge within the military organization. Formal learning systems include after-action reviews, end-of-tour assessments, lessons learned documentation and other systems that assist in capturing knowledge within the

organization. As previously explained informal learning systems have an equally significant impact on organizational knowledge generation and capturing as formal learning systems. The informal nature of these systems makes knowledge generated in such context more challenging to capture, but nonetheless important. Consequently, interpretation depends on the capacity and willingness within the organization to process the captured experiences (Huber, 1991, p. 103; Catignani, 2014, p. 37). The organization then attempts to translate events and develop shared understandings and conceptual schemes (Daft & Weick, 1984, p. 286). Simply put the organization begins giving meaning to the knowledge captured in the formal learning systems. The personnel involved in mid- to long-term event interpretation are higher up the chain of command than the units included in the first stage. The interpretation of such personnel can, thus, create adaptive measures that go beyond the battlefield. Such measures can, for example, constitute alterations to lessons learned structures and pre-deployment training. When there is agreement on the interpretation among the members of the organization, it can enhance learning processes, while disagreement can inhibit processes. The more complete and agreed upon interpretation can potentially create organizational learning (Huber, 1991, p. 102). The first and second stage of the framework equates military adaptation as defined by Farrell et al. (2013).

Stage three is organizational learning. This stage is defined as the institutionalization of knowledge or understanding that leads to new institutional norms, doctrine, routines, and procedures in ways designed to minimize previous gaps in performance and maximize future successes. In this thesis, organizational learning equates military innovation. Below is a visual representation of the analytical framework.

Framework Model

Stage 1) Event + Short-Term Interpretation

Battlefield-based problem solving through the modification of existing organizational practices

Stage 2) Mid- to Long-Term Event Interpretation

Problem solving through the modification of existing organizational practices that extends beyond the battlefield

Stage 3) Organizational Learning

The institutionalization of knowledge or understanding that leads to new institutional norms, doctrine, routines and procedures in ways designed to minimize previous gaps in performance and maximize future successes

Shaping Factors

1. Alliance politics
2. Domestic politics
3. Strategic Culture
4. Civil-military Relations



III. Methodology: Qualitative Interviews for Data Collection in Military Affairs

The empirical collection for this thesis is the result of six interviews with officers of the Danish Army who served in Afghanistan and were deployed to the Helmand province during the period 2006-2010. The information that they have provided allows the exploration of the learning processes they have experienced before and during their deployment to Afghanistan. The use of interviews allows researchers “to study organizational politics, culture, and change in uniquely illuminating ways, revealing how the wider organizational issues are viewed, commented upon and worked on by their members” (Gabriel & Griffiths, 2004, p. 136). Furthermore, the qualitative interviews have allowed the collection of information that would not have been possible due to required security clearance needed for accessing internal documents of the Danish Army. Qualitative interviews, therefore, remain the most viable option when researching military affairs, as it acquires both access to potentially restricted but vital information and understanding of organizational activities (Deschaux-Beaume, 2012, p. 104). The interviews were carried out according to semi-structural interview framework (Kvale & Brinkmann, 2014, pp. 143–144). This framework was applied to prevent that the information provided was influenced or colored by the questions asked and the interviewees were, therefore, able to talk about their experiences without prejudice. Significant issues with documentation in the Danish Army also emphasize the importance of interviews for this research, as they remain a key access point for gaining knowledge in relation to the military learning processes that occurred during deployments to Helmand.

Confidentiality of Sources

The interviewees for this thesis expressed that their willingness to participate was conditioned by guaranteed anonymity. This condition also assured an unfiltered version of events, as it would avoid any negative consequences that could occur within the Danish Army for discussing sensitive matters. However, it does raise specific methodological challenges that require reflection. How does the researcher comply with the transparency of data when anonymity is required? The status of the interview data poses one of the fundamental methodological challenges in social science research into military affairs (Deschaux-Beaume, 2012, p. 110). A manner in which a degree of transparency can be achieved while maintaining the confidentiality

established between interviewee and interviewer is through a researcher's explicit acknowledgment of the conditions surrounding the data collected. The data's validity could be heightened through further research in the field. Other researchers' interviews could confirm or reveal perception differences and add additional nuances with regard to the information obtained for this thesis.

Reflections on Interview Constraints

When conducting an academic study into the Danish military, it is essential to reflect upon the social asymmetry that exists between the civilian researcher and the military organization. The civilian-military divide has been examined by scholars and is thought to be the product of the unique organizational culture that occurs within militaries (Higate & Cameron, 2006). Scholars argue that having first-hand knowledge of such culture prevents current and former military personnel to be perceived as "outsiders" (Soeters, Shields, & Rietjens, 2014, p. 154). Such reflection is especially worth noting in the context of qualitative interviews as it impacts the access to key military decision-makers and the knowledge provided to the civilian researcher. An additional challenge is the technical military jargon applied in the military organization. It demands a degree of situated learning, where skill and expertise are only achieved through participation in the social and practical context provided by the organization (Lave & Wenger, 1991; Wenger, 1998). These aspects underline the need for civilian researchers to explicitly address their position as an "outsider". Such status acknowledges the challenges in the application of information gained from interviews with military personnel and creates validity regarding the scope of the study.

Constraints in Access and Data Collection

The research for this thesis has discovered a strikingly large gap in the documentation of experiences of the Danish Army in Helmand. Furthermore, the End-of-Tour evaluations and lessons learned experiences have often occurred orally and only between directly involved parties. While relevant information has been passed on to personnel responsible for important areas, knowledge has neither been systematically gathered nor has it been anchored within the parts of the Danish Armed Forces responsible for education and preparation of future deployments. In addition, the use of different systems for the registration of documents has further complicated the

archiving. Material relevant to this thesis was sent to Denmark from Afghanistan, but this researcher has not been able to retrieve it from the archives. Other material is presumably found in British archives but is inaccessible for Danish use (Andersen et al., 2016, p. 13). The lack of source material has meant that key documents have not been attainable. Identifying mission objectives, indicators of progress and lessons learned from the Danish engagement in Helmand, therefore, becomes quite difficult.

IV. Mobilizing and Maintaining Danish Support for Helmand

This chapter discusses the shaping factors introduced in the analytical framework, specifically Danish politics, strategic culture and civil-military relations. Each factor contributes to an understanding of how Danish civil society created a setting that shaped the incentives for learning in the Danish Army during the deployments to Helmand.

Denmark has since 1945 had two principal security objectives: “(1) preserving Denmark’s security, territorial integrity and prosperity; and (2) strengthening democracy, human rights, development, disarmament and a rule-based international society where might does not equal right” (Jakobsen & Ringsmose, 2014, p. 217). During the Cold War, Denmark’s defense politics was defined by a preference for non-military means. However, since Denmark’s use of military engagement in the Balkans in the 1990s, a change in Danish strategic culture has made the military instrument a “legitimate tool of statecraft” (Jakobsen & Ringsmose, 2014, p. 218).¹ With military deployments to Afghanistan, Iraq, and Libya, the use of military force has been applied to demonstrate that Denmark, despite its size, is a member of the international community willing to apply force to promote its values and prove the country’s worth among its larger allies (Jakobsen, 2000, 2009).

This position was the platform for deployments to Helmand. Engaging in Afghanistan was a logical extension of promoting Danish values by aiding the Afghan government in building democracy and promoting liberal values while undertaking its international responsibility through its membership in the United Nations and NATO (B64, 2006; B161, 2007). The proposal to deploy Danish forces to Helmand was attributed mainly to the argument that the operation would be a balanced civil-military contribution (Rasmussen, 2011, p. 25). The focus on providing support for development and reconstruction was crucial in securing the majority in parliament to pass the proposal. In Danish politics, proposals containing the use of military force are constitutionally required to be discussed in parliament (Jakobsen & Ringsmose, 2014, p. 219). The norm of consultation meant that during the Helmand deployments the opposition was invited to address any change to the Danish contribution or

¹ The development of Danish strategic culture has been debated in-depth by Svendsen & Halskov (2012). *Et land i Krig: Hvordan Danmark Blev Krigsførende - og Politikere og Generaler Famlede i Blinde*. Copenhagen: Politiken.

mandate renewal for the government to maintain support through consensus. The mechanisms of consensus and consultation led to the Danish government adhering to the request of the opposition to formulate a plan for Helmand in December 2007. From 2008 annual evaluation of a Helmand strategy served as a platform where consultation and negotiations were decisive in maintaining a high level of parliamentary support by permitting each party to include their preferred instruments and objectives into the evolving strategy (Jakobsen & Ringsmose, 2014, p. 219). The Social Democrats and the Liberal Left Party prioritized the use of soft instruments in the form of development and reconstruction to promote human rights, while the Danish People's Party prioritized the use of hard military instruments to combat the threat posed by the Taliban (Jakobsen & Ringsmose, 2014, p. 219).

Maintaining Political Consensus

Team 1's engagement with the Taliban in Musa Qala in the summer of 2006 was the first crisis to erupt among the political parties in parliament. The Army Operational Command estimated that the heavy fighting had resulted in Danish troops killing approximately 70 Taliban fighters (Rasmussen, 2011, p. 46). This news stood in contrast to the political argument that the Danish participation in Helmand was a humanitarian effort. Fearing that the fighting in Musa Qala could jeopardize the majority required for the Helmand deployments, the defense minister took several actions to maintain consensus among the political parties. The minister adhered to demands by the Social Democrats who wanted an update on the activities in Helmand (Frederiksen, 2006). The minister reassured the opposition and the public that Denmark was not in Afghanistan to fight a war but to contribute to reconstruction and development, as they remained essential in enabling long-term success (Jalving, 2006). The minister also made inquiries on the information provided by the Army Operational Command and informed both parliament and the public that the information concerning the number of killed Taliban fighters was askew and the confirmed number of death was 12 in contrast to the 70 reported. Furthermore, the minister argued that the deaths had occurred due to the Taliban attacking Danish Forces and the measures taken were necessary to ensure the safety of the Danish troops. Fearing that a similar situation might arise, the minister tasked the Army Operational Command to improve the information provided to parliament and the public (Brøndum, 2006).

Political consensus was maintained and to ensure an understanding for necessary military actions that might occur in Helmand, the minister of defense also began arranging political visits to the troops (Svendsen & Halskov, 2012, p. 434). The underlying foundation for political consensus on Afghanistan was facilitated and maintained by a desire to move focus from the profound domestic disagreement that the Danish contribution to the war in Iraq had fuelled (Jakobsen & Ringsmose, 2014, p. 220). Afghanistan offered an opportunity to for the opposition to fend off claims that they were continuing Danish “fodnotepolitik”, a term defined by a political unwillingness to take action (Rasmussen, 2011, p. 24). For the government, Afghanistan was an opportunity to increase “active participation in international military operations in order to give Denmark a stronger position on the international scene than its size warranted” as former Prime Minister Anders Fogh Rasmussen described his vision for Danish foreign policy before taking office in 2001 (Larsen & Fogh Rasmussen, 2003, p. 220). The strong political consensus for the Afghanistan engagement became particularly important before the general election in 2011. For the Social Democrats and the Social People’s Party, the election was a matter of demonstrating that each party had the required ability to govern in a time of conflict. As a result, the Socialist People’s Party abandoned the opposition to NATO and joined the first defense agreement in party history in 2009 (Aagaard, 2009; Madsen, 2009).

However, significant Danish political decisions remained subject to the courses taken by the Americans and British. The development of the Danish Helmand strategy had followed suit after the presentation of the British Helmand, and consensus on a Danish exit strategy became relevant after American and British discussions (Rasmussen, 2011, pp. 113–116; Jakobsen, 2012, p. 197).

Maintaining Public Support: A Flexible Expectation of Success

According to official documents, the goal of the Danish contribution to Afghanistan was twofold. 1) To contribute to Afghan national security and assist Afghan security forces in developing the capabilities to handle the terrorist threat. 2) Aiding the Afghan government in improving stability and creating prosperous conditions for the population through the growth of democracy and the protection of human rights

(Udenrigsministeriet, Danida, & Forsvarsministeriet, 2009a, p. 2). Despite a primary focus on military activities during the majority of deployments, the narrative of Danish success consisted of reaching peace through an equal balance of civilian and military instruments (Jakobsen & Ringsmose, 2014, p. 222). As previously discussed, a parliamentary majority was gained through a promise of a civil-military balance. However, the Danish engagement from 2006-2010 shows a different picture (see chapter 5). From the beginning of the Helmand deployments, the Chief of Defense General Jesper Helsø did not believe that the Danish Armed Forces possessed the civilian capability required for providing a *Provincial Reconstruction Team* (PRT), the principal element in the international stabilization effort (Rasmussen, 2011, p. 29). While the Danes could provide personnel to a British PRT, the lack of the necessary resources meant that from the beginning of the Helmand deployments, the civilian element was mainly ignored in operational planning (Farrell et al., 2013, p. 143). Officially the Ministry of Defense and Foreign Affairs continued to promote the Danish civil-military cooperation in NATO, to the public in Denmark and was at the center of the parliament's Helmand strategy. Despite the difference between the diplomatic rhetoric and the military reality, there seemingly did not lie a need for resolving this discrepancy (Farrell et al., 2013, p. 143).

The civilian leadership maintained its political persuasiveness and consensus, while the military leadership could focus on its military operations. The civil-military approach further permitted a definition of success that could continuously alter depending on the audience. Supporters of the civilian approach were repeatedly reinsured that the Danish support for women and education meant that an increasing number of girls were attending school (Jakobsen & Ringsmose, 2014, p. 221). Supporters of a harder military approach were informed that the Danish soldiers were developing a level of security in their area of operations that permitted development and reconstruction. Statements by soldiers were used by politicians to support their narrative of progress and to reject claims that the Danish military contribution was futile (Dueholm, Udenrigsministeriet, Danida, & Forsvarsministeriet, 2010; Rasmussen, 2011). While the truth of these narratives fluctuated, they permitted flexibility that allowed the public to find a cause to support even when progress was challenged.

Uncritical Media Coverage

Political consensus and development of strong public support have arguably been aided by the uncritical coverage of Afghanistan by the Danish media (Hussain, 2010; Jørgensen, 2012; Kryger, 2011). Media studies focusing on this period highlighted that journalists heavily relied on political and military sources and repeatedly transmitted their views. According to Peter Viggo Jakobsen and Jens Ringmose, not having the media scrutinize the Danish involvement in Helmand constituted a failure as a democratic watchdog (Jakobsen & Ringsmose, 2014, p. 222). Berit Børgesen demonstrated this failure in her analysis of newspaper editorials published between 2002-2009. Out of 60 editorials analyzed, only five were critical of the Danish engagement (Børgesen, 2010, pp. 36–39). Jakobsen found in his research that only one newspaper (Ekstra-Bladet) consistently remained critical during this period (Jakobsen, 2012, p. 195).

A Setting of Non-Interference

The alignment of domestic politics, strategic culture, and civil-military relations, which were aided by an uncritical media, established a setting of non-interference towards the Danish Army. Even in situations such as Musa Qala, where the disconnect between the political and operational reality of Helmand threatened to alter civil-military relations, it did not increase an incentive for changed behavior in the Danish Army besides the improvement of information provided to parliament and the public. In theory, non-interference would mean that the Danish Army could pursue any avenue the organization saw fit with ample room for organizational learning. But in this, case non-interference from the government and civil society meant that there was no pressure or demand to develop learning within the organization. As a result, the Danish Army relied strictly on its own benchmark for success, which was compatibility with the British framework. Consequently, one can speculate whether greater interference from civil society would have provided a more robust incentive for developing processes for organizational learning in the Danish Army.

V. Danish Military Operations in Helmand: 2006-2010

By discussing the deployments of Teams 1-10 to the Helmand province, this chapter shows in more detail how the British framework was defining for Danish military operations in Helmand, and how the alliance politics of the partnership with the British had consequences for the Danish Army. One aspect of this alliance was that the British framework interfered with the Danish ability to achieve its military objectives. Another aspect was that Danish troops adapted to its environment of the British and the Taliban through problem solving on the battlefield and beyond in accordance with Stage 1 and 2 of the analytical framework. How these situations came to occur are explored below.

On 2 February 2006, the Danish parliament voted to expand the contribution to ISAF in Afghanistan as part of the NATO's Stage III expansion to the southern provinces of Afghanistan (Udenrigsministeriet et al., 2009a, p. 6). Expelling the Taliban from Helmand was of strategic importance as the province produced most of the world's opium and was the largest single production center in Afghanistan (Osman, 2015). The opium economy meant that as long as the Taliban controlled Helmand, funding of insurgency activities would continue. While issues with "paucity of education, lack of human capacity, and acute deficit of governance" (Farrell & Gordon, 2009, p. 19) were not unique to the province, the opium economy enhanced the effects of these factors and allowed exploitation by insurgents, criminals, and drug traffickers. Combined with systemic corruption, the environment that the Danish Army was to operate in was highly challenging.

The Danish contingent of 290 soldiers to Task Force Helmand consisted of one company of reconnaissance troops with support elements stationed at the main British base at Camp Bastion in central Helmand. The unit was one of two reconnaissance companies of the Hussars Regiment. These reconnaissance companies were held in a higher state of readiness and had served as the first units deployed in the Balkans and Iraq (Farrell et al., 2013, p. 141). The Hussars began their first operation in the summer of 2006, *Operation Barabar*. The objective was to relieve a British unit caught in the Musa Qala's district center ('Længste kampe siden 1864', n.d.).

The Battle for Musa Qala

The approach for the British deployment to Afghanistan was described in the *Joint UK Plan for Helmand*. The ambition was to apply the counterinsurgency (COIN) “ink-spot” strategy (Pritchard & Smith, 2010, p. 68). The strategy consists of clearing and holding secure zones (the ink-spot) while increasingly widening the zones until only pockets of resistance remain (Mills, 2006, p. 20). The goal is then to improve local services by building schools, medical centers, roads, and electricity to win the local population’s support and remove it from the insurgents (Mills, 2006, p. 19). In Afghanistan, the zone of interest was a triangle consisting of three points: Lashkar Gar, Camp Bastion and Gereshk (Marston, 2008, p. 2). After having secured the zone, the ambition was to expand the area north of Gereshk towards Sangin and Kajaki. In June 2006 plans for the extension of the secure zone had begun but was halted at the request of the Afghan government (Pritchard & Smith, 2010, p. 71) The Taliban had begun infiltrating the northern districts, and a number of towns were threatened. British forces, consequently, needed to deviate from the plan and deploy to the towns of Sangin, Now Zad, Musa Qala and to the area of the Kanjaki dam (King, 2010, p. 315). The urgency of British deployment was emphasized when the Taliban attacked Musa Qala, killing 20 members of the National Afghan Police (Bishop, 2008, p. 52). Brigadier Ed Butler, the British commander of Task Force Helmand and head of the British military mission, did not approve of the change of plans and argued that it went against “military logic, experience and tactical wisdom” (Fergusson, 2008, p. 158). Butler argued that Task Force Helmand did not have sufficient operational capacity to defend and hold the required positions and feared that deploying to the northern districts would overextend the British troops. Spreading the British troops thin would mean that the task force would be incapable of securing the established secure zone between Lashkar Gah, Camp Bastion and Gereshk (Pritchard & Smith, 2010, p. 71). In the end, the commander was ordered by London to adhere to the demands of the Afghan government (Jakobsen & Thruelsen, 2011, p. 82). However, the deployment of British troops to the northern districts meant that Butler’s warnings became true. This was the setting that the Danish Team 1 faced when it became operational in July 2006. British forces were scattered across the Helmand province, unable to stabilize the situation. They had set up small fortified bases, known as “platoon houses”, inside the northern towns (Donnelly & Schmitt, 2008, p. 3). On 21

July, Danish reconnaissance troops were sent to Musa Qala on orders of the British commander to relieve exhausted British units who were running out of food, water, and ammunition. The Danish troops were trained to execute patrolling and reconnaissance tasks with mobility being a core competency of the company. Inside Musa Qala, they would not be able to exploit their strength of patrolling and reconnaissance, but the alliance structure of Task Force Helmand meant that the British command was final (Ulslev Johannesen, Flott, & Zhelder, 2009, pp. 70–73). The Danish unit arrived at the town on 26 July, and it would be a month before they were relieved again. When British units reached Musa Qala on 25 August, the Danes had defended themselves against more than fifty attacks (Ulslev Johannesen et al., 2009, p. 188). The Danish unit managed to hold Musa Qala and leave without casualties, but the efforts to hold the town were short-lived. The Taliban gained control of the area three months later. In December 2006 ISAF and Afghan forces retook Musa Qala (Thruelsen, 2007, p. 5). Following Musa Qala, the reconnaissance competencies of the Danish troops were applied in several British- and Canadian-led operations in Kandahar and Helmand. It would seem that Musa Qala was not the result of British exploitation of Danish troops, but rather the result of operational necessity that had occurred as a breakdown in the “ink-spot” strategy. The Danish commander understood the necessity, and in the End-of-Tour rapport, he described Danish-British cooperation as being “frictionless” and “without problems” (Jakobsen & Thruelsen, 2011, p. 83). The ambition of close integration with the British in Afghanistan meant that Team 1 was not given operational guidance from the Danish Army Operational Command upon deployment but was informed to adhere to British orders. Without restrictions on British use of Danish troops and without Danish operational guidance, the framework established by Task Force Helmand would define the Danish experience in Helmand.

Detect & Destroy

When the new British brigade (3 Commando Brigade) arrived in Helmand, it was with an entirely different approach to operations than Team 1 operated under (Farrell, 2010, p. 576). The COIN strategy of clear-hold-build in the Lashkar Gah-Gereshk area remained the same, but the new approach acknowledged a need for maneuverability to avoid units being pinned down, as seen in the northern towns. This change in strategy meant that Team 2, which consisted of 2 Reconnaissance Battalion from the Guard Hussars, could apply their reconnaissance competencies in newly

established Mobile Operations Groups (MOGs). The MOGs were to conduct long-range patrols to detect and destroy Taliban forces, which would hinder the Taliban in executing large-scale attacks against the troops positioned at the platoon-houses (King, 2010, p. 317). Team 2 operated with this objective in an array of areas ranging from north of Highway One to the area between Musa Qala and Now Zad. Team 2 began working with the local population, but combat operations comprised the majority of the team's deployment. When Team 3, consisting of 1 Battalion from Jutland Dragoons, began their deployment in February 2007, efforts were focused towards "winning hearts and minds", which meant an increased focus to develop civil-military cooperation (CIMIC) activities (Jakobsen & Thruelsen, 2011, p. 84). Team 3 also continued conducting MOG patrols following the activities of Team 2. After two months of deployment, the new British brigade (12 Mechanized Brigade) arrived in Helmand, and a new British agenda established a different operational framework for the Danish troops. 12 Mechanized Brigade acknowledged that the MOGs of 3 Commando Brigade had not succeeded in dispersing the Taliban, and was, thus, not having an enduring security effect. Consequently, 12 Mechanized Brigade changed the operational approach. Instead of seeking out the Taliban, the brigade established a series of patrol bases and forward operating bases (FOBs) from which to conduct operations against the Taliban while demonstrating an "enduring presence" in the populated areas of Lashkar Gah, Gereshk and Sangin (Farrell, 2010, p. 577). The changes brought forth by 12 Mechanized Brigade meant that Team 3 abandoned their focus from MOGs and became involved in several large-scale ISAF operations, which aimed at re-establishing the Afghan government's authority in Sangin and Kajaki.

The shift in operational objectives for Team 2 and 3 reemphasized that the British determined the framework for the Danish engagement in Helmand. The End-of-Tour report for Team 3 acknowledged that Danish mobility in this framework depended on establishing and maintaining a positive personal relationship with key personnel in the British Battle Group and Task Force headquarters (Jakobsen & Thruelsen, 2011, p. 85).

Battle Group Center

By August 2007 12 Mechanized Brigade had cleared territory in several areas of the Helmand province. However, the brigade had failed in holding the territory after its major operations, which meant that the Taliban returned once Task Force Helmand moved on to other operations. As British Brigadier John Larimer formulated, it felt like “mowing the lawn” (Farrell et al., 2013, p. 112). The approach of 12 Mechanized Brigade had also worsened relations with the locals as heavy fighting had displaced the population of several towns. Consequently, the population’s animosity towards ISAF and the Afghan government grew larger (Grey, 2008). It, therefore, seemed logical when 52 Infantry Brigade rotated in, that a population-centric approach was necessary instead of the previously enemy-centric (Farrell, 2010, p. 578). While the previous British operational design had been vital in determining the framework for the Danish Army in Helmand, it was domestic decisions that now became decisive. During the summer and fall of 2007, a majority of the Danish parliament voted for more than doubling the Danish contribution to Helmand with an increase from 281 to 550 troops and then 629 at the beginning of 2008 (‘Konstant offensivt pres mod Taliban’, n.d., ‘Taliban bruger flere improviserede sprængladninger’, n.d.). The increase in troops to a battle-sized group had in part been influenced by a desire to achieve a higher degree of operational independence from the British (Rasmussen, 2011, pp. 31–32). This desire arguably also drove the ambition to put Battle Group Center under Danish command. Battle Group Center was responsible for the town of Gereshk, which included 50,000 inhabitants and part of the Green Zone. The Danish Defense Command had wanted the Battle Group Center as it was deemed the best location for development and reconstruction activities, which played a crucial role in the government’s legitimization of the Danish engagement in Afghanistan (Rasmussen, 2011). This decision, however, was implemented despite the Battle Group Center being the most dangerous and difficult out of the three Battle Groups Centers into which the British had divided the Green Zone (Jakobsen & Thruelsen, 2011, p. 86). By late June 2007, Battle Group Center was officially under Danish command. To address the Taliban threat that existed within the territory of the Battle Group, the Danish parliament approved a request from the Danish Defense Command to send a Leopard tank platoon to Helmand. The tanks arrived in November 2007 (Rasmussen, 2011, p. 64). Team 4 arrived in Helmand August 2007, consisting of 1

Battalion from the Royal Life Guards. Their primary objective was to establish security in the Green Zone. Team 4 spent most of its deployment on patrol and on offensive operations north of the town of Gereshk. British-led operations that required Danish assistance continued to be recurring with *Operation Thunder* being the most significant for Team 4. The result of this operation was the establishment of FOB Armadillo (later renamed FOB Budwan), which became a symbolic base for the Danish soldiers as the efforts of the Danes contributed to the Taliban leaving Upper Gereshk Valley (Rasmussen, 2011, p. 66). Team 5 arrived in February 2008 and consisted of 1 Battalion from the Guard Hussars. Team 5 continued the offensive operations north of Gereshk. By May 2008 Team 5 had pushed several kilometers north of Armadillo and established Patrol Base Attal. As previously seen in Helmand, clearing an area was a feat possible and Team 4 and 5 had been vital in clearing the Green Zone. But as previous experiences also demonstrated, the following holding and building was a task far more difficult, which became apparent before Team 5 rotated out. The efforts to permit development and reconstruction activities began to disintegrate as the Afghan National Army's decided to close two of their patrol bases in the Green Zone. Consequently, the security situation in the area quickly deteriorated (Udenrigsministeriet, Danida, & Forsvarsministeriet, 2009b, p. 13). The Taliban responded with increasing attacks on FOB Keenan and FOB Sandford. Patrol Base Attal had also been attacked frequently and was eventually closed in the fall of 2008 (Jakobsen & Thruelsen, 2011, p. 87). Acknowledgment of the asymmetrical military power relations between the Taliban and ISAF meant that the Taliban began increasingly using improvised explosive devices (IEDs) and suicide bombers. In the spring of 2008, the majority of fallen Danish soldiers were the victims of these new techniques ('Taliban bruger flere improviserede sprængladninger', n.d.). Because the FOBs were isolated, the lack of territorial control in the surrounding area meant an inability to sufficiently prevent the Taliban from planting IEDs (King, 2010, p. 320). As a result, Danish platoon leaders engaged with the first stage of learning: addressing operational challenges through short-term problem solving. As the platoon formations taught in the Danish Army did not take into account the presence of IEDs, it was clear that these formations had to adapt to the environment that faced Danish troops in Helmand. New formations were developed and the changes to TTPs aided in minimizing casualties as a result. These adaptations were then shared among officers

through informal knowledge exchange (Interview with Danish Officer, 7 March 2018).

During the deployment of Team 5, the shift towards a new civil-military strategy began with the arrival of the British *The Helmand Road Map*. The following Danish *Afghanistan Strategy 2008-2010* and *Helmand Plan 2008* explicitly stated that the Danish strategy was to follow the strategy outlined in the British document (Udenrigsministeriet et al., 2009b, p. 10). The new strategy outlined that military activities were only to be deployed in support of civilian and political development goals (Thruelsen, 2008, p. 20). However, it would seem that the arrival of the *Helmand Road Map* illustrated an inconsistency between strategic goals and operational activities (Farrell et al., 2013, p. 143). Because of the political nature of the document, the content did not involve operational guidance or the manner in which it should be implemented. Extensive planning, therefore, began by the Danish deputy commander and his stabilization advisor to translate strategic goals into operational activities. The plan gained admiration among the British and became the model to follow for other districts (Jakobsen & Thruelsen, 2011, p. 87). However, the plan required civilian personnel from Denmark to become operational. Such personnel never arrived (Rasmussen, 2011, p. 76). The *Afghanistan Strategy 2008-2010* demonstrated a strategic-operational disconnect as the necessary resources to create the framework for its implementation never materialized (Jakobsen & Thruelsen, 2011, p. 89). Without the resources required to develop the civil-military approach, non-kinetic activities were not prioritized. The prioritization was evident in the number of CIMIC officers and civilian advisors deployed to the Helmand province in this period. The CIMIC officers were deployed with three officers less than required and received no replacement when a suicide bomber killed two of the officers (Thruelsen, 2008, p. 29). Team 5 only had one civilian advisor without a replacement, and the advisor went on leave two weeks every six weeks (Thruelsen, 2008, p. 32). The civil-military approach further deteriorated, as the Danish Army did not provide support for the approach. Consequently, Team 5 did not prioritize providing the necessary security escorts for its CIMIC officers and civilian advisor (Thruelsen, 2008, p. 36). A further strategic-operational disconnect was demonstrated when the Ministry of Foreign Affairs decided to prioritize the building of schools in Gereshk despite the Danish Battle Group facing more pressing challenges in the form

of providing security for the population against the Taliban (Rasmussen, 2011, pp. 77–78).

With the command of Battle Group Center Team 4 and 5 achieved an area of responsibility and, thus, gained an independent set of military objectives. The Danish military objectives consisted of clearing the Taliban from Danish territory and hold it to permit for development and reconstruction activities. The Danes seemingly achieved greater operational independence as they conducted offensive operations to push back the Taliban from their area of operations. During this period, the Taliban developed new technological capabilities through the use of IEDs. In response, Team 4 and 5 engaged with learning as they adapted to the operational challenges the IED threat posed. The deployment of Team 5 also demonstrated that the civil-military approach that had been vital in achieving a political majority in Denmark was far away from the operational reality of Helmand.

Fighting to Hold Ground

By 2008 fundamental issues with the plans of the Danes and Task Force Helmand persisted. To deploy a population-centric approach as envisioned by the British and Danish, ensuring and maintaining security while permitting development and reconstruction activities were crucial to achieving the desired COIN effect. As established by previous operations in the Helmand province, clearing territory was manageable. However, providing the necessary military and civilian personnel required continuous presence and stabilization efforts remained insufficient (King, 2010, p. 312). By Team 5 it had also become clear that the main Danish strategy was simply to plug into the British framework. None of the Danish commanders had since Team 1 received operational guidelines from the Danish Defense Command, which equally would become the case for the following five teams. Each commander was, therefore, left to define his own operational plan upon arrival (Jakobsen & Thruelsen, 2011, p. 90). The consequence was that priorities continuously shifted each time a new team rotated in with a different agenda² making a coherent Danish strategy difficult. Continuity was only achieved when the new commander viewed the previous commander's plan as a reasonable one to follow (Interview with officer, 7 March 2018). British plans, therefore, continued to have defining impact on Danish

² The majority of interviewees have reiterated this view.

operational activities. Such was the circumstances for Team 6 that arrived in Helmand in August 2008. Team 6 consisted of 1 Battalion of the Jutland Dragoons and was quickly faced with increased demands from the British to participate in operations outside the Danish area of responsibility. These operations took place in the south between Lashkar Gah and Gereshk and besides Danish involvement required major contributions from the Afghan National Army. This meant significant depletion of Afghan military personnel that operated in the Danish part of the Green Zone ('Price bliver største danske base', n.d.). Without the presence of the Afghans, Team 6 struggled to hold ground and maintain security in the area (Jakobsen & Thruelsen, 2011, p. 91). The largest operation for Team 6 was the British-led *Operation Quab Tzuka*. The Danes were to create a diversion in order to distract the Taliban from the transport of a turbine from the Kandahar Province to the Kajaki Dam in central Helmand (Kromann, 2008). Team 6 was celebrated in the Danish press for their contribution to the operation, but the consequences for Battle Group Center were dire (Jakobsen & Thruelsen, 2011, p. 91). The struggle to maintain security in the Green Zone continued and Team 6 engaged in several offensive operations to hold the Taliban at bay ('Price bliver største danske base', n.d.). The security situation in the Green Zone further destabilized, as resources were not reallocated back to Battle Group Center. Resources remained in the south due to a large-scale attack on the provincial capital Lashkar Gah in October 2008. The attack occurred shortly after 3 Commando Brigade rotated in with the objective of ensuring safety around the capitol and the area between Lashkar Gah and Gereshk. The principal task for the new brigade, therefore, became to reassert its position in the area (Farrell et al., 2013, p. 116). At the same time, the Afghan National Army moved a battalion of seven hundred soldiers out of the Danish area of responsibility, which resulted in the closure of the Patrol Bases Attal and Barakzai (later renamed Zumbelay) ('Price bliver største danske base', n.d.). The Taliban were quick to exploit the opportunity and settled into Patrol Base Barakzai. This move cemented that the Green Zone was no longer under the control of Battle Group Center as a result of Afghan and British decisions. The Taliban's gain expanded, which further eroded Danish control along the Helmand River while the situation around FOB Budwan became critical. Regaining control of the situation in the Green Zone became the primary operational goal for Team 7. The team arrived in February 2009 and was built around 1 Battalion of the Guard Hussars but included personnel from the Jutland Dragoons, the Jaeger Corps, and the Danish

Home Guard. By May 2009 Team 7 had recaptured and manned Patrol Base Zumbelay (Jakobsen & Thruelsen, 2011, p. 92). Close integration with the British forces again came at a high cost, as Danish troops were continually deployed outside the Danish area of responsibility despite not having stabilized the security situation in the Green Zone. 3 Commando Brigade requested on several occasions the assistance of Danish forces for long-term operations and when 19 Light Brigade took over in April 2009, the demands from the British increased. Previously the Danish Battle Group had only been requested to assist with a number of units, but when the British brigade decided to clear the Babji area south of Gereshk in July 2009, it asked for the majority of the Battle Group. The goal of *Operation ai Palang* was to clear a Taliban stronghold south of Gereshk to improve the security for the pending presidential election (Udenrigsministeriet, Danida, & Forsvarsministeriet, 2010a, p. 4). The operation involved more than 4,000 ISAF forces. The Danish objective was to spearhead the breach into Taliban controlled area and gain control of the village Spin Masjed ('Forsvaret TV - Panterens Klør', 2009). During the raids of compounds, Danish units stumbled upon an IED factory that had hastily been abandoned by the Taliban. What the units found was IEDs that did not register on the Danish minesweeper equipment. The reason was that these IEDs contained a minimum of metal and the equipment could, therefore, not register them (*Min krig - Panterens klør*, 2014). This new operational challenge forced the Danish Army to adapt by engaging with learning in accordance with stage 1 and 2 of the analytical framework. While the majority of the minesweeper equipment could not detect the low levels of metal in IEDs, members of the Engineer Regiment deployed with Team 7 did have equipment capable of such detection. When Team 7 returned from *Operation ai Palang*, the team, therefore, engaged in short-term problem solving (Stage 1). The solution was to retrofit the existing minesweeper equipment for the duration of their deployment (Interview with officer, 6 March 2018). However, the need for minesweeper equipment capable of detecting the low levels of metal persisted. Consequently, by engaging with mid- to long-term problem solving (Stage 2), the Danish Defense Command retrofitted the remaining minesweeper equipment in Denmark and deployed it with the following team (Interview with officer, 6 March 2018).

While the Danish troops succeed in clearing Spin Masjed during *Operation ai Palang*, the resistance from the Taliban was more substantial than expected and the British troops suffered high numbers of casualties and wounded. This resistance caused a delay in the operation, and as a result, Danish and British troops were absent from the north longer than expected. With the closing of FOB Gibraltar to free more British troops for the operation, only a home guard platoon and a quick reaction platoon guarded the Danish area of operations (Jakobsen & Thruelsen, 2011, p. 92). The Taliban was again ready to exploit the situation and increased the pressure on the remaining troops. When Danish soldiers returned to the Green Zone, the Taliban had regained influence in the area, and the threat of IEDs near FOB Budwan reached new levels. Following *Operation Panchai Palang*, Danish Special Forces, the Jaeger Corps, were sent into the Danish area of operations to regain influence. Despite their efforts, the situation remained unaltered. Team 8 arrived in August 2009 consisting of 3 Reconnaissance Battalion from the Guard Hussars. When Team 8 arrived, 19 Light Brigade was still focused on operations in the Babaji areas south of Gereshk. 19 Light Brigade's approach to the newly arrived Danish forces was far more concerned with micromanaging than previous brigades (Jakobsen & Thruelsen, 2011, p. 93). Thus, on arrival, the Danish Commander was tasked with having its primary focus on the Babaji area and not within its area of operation in the Green Zone northeast of Gereshk. Additionally, the British commander requested that the Danes report extensively on several issues to the brigade and adhere to specific demands. After discussions, a light reconnaissance squadron was tasked to meet the British requests with a mechanized infantry company stationed at FOB Budwan to guard the Green Zone. Due to the deteriorating security situation over the last couple of teams, the terrain surrounding the FOB Budwan had been lost and was in Taliban control. When 11 Light Brigade arrived in October 2009, the cooperation between Danish and British forces returned to its previous state. Danish involvement outside its area of operations dropped, but 11 Light Brigade envisioned that building new patrol bases close enough to support each other, would enable an effective COIN strategy. The Danes were to partake in this plan, but the Danish Battle Group did not believe that the current number of troops would be sufficient in implementing such plan (Jakobsen & Thruelsen, 2011, p. 93). Instead, the Danes suggested closing FOB Budwan to concentrate forces closer to Gereshk, which caused several objections from Copenhagen, the British brigade, and Regional Command South. FOB Budwan,

therefore, remained open (Interview with officer, 13 February 2018). Still having troops in FOB Budwan meant that Danish forces were spread thin throughout its territory to establish the new bases. *Operation Tufaan Feschar II* executed in January 2010 became the culmination of these efforts. The goal was to establish Patrol Base Bahardur, which would fill a gap near the Helmand River, as the base would be positioned between FOB Rahim and FOB Khar Nikar. As previous experiences demonstrated, the Danish Battle Group and Task Force Helmand were capable of performing large-scale operations that cleared the Taliban from a territory. The gains were evident in the following months with minimal hostile activity, increased maneuverability and improved relations with the local population (Jakobsen & Thruelsen, 2011, p. 94). As previous experiences also demonstrated, these gains would be short-lived.

Team 9 arrived in February 2010 and consisted of 1 Battalion of the Royal Life Guards. The team was quickly challenged by an unannounced withdrawal of Afghan police units responsible for a patrol base northeast of Gereshk. Poor cooperation between 11 Light Brigade and the Afghan police had created a situation that allowed the communication breakdown. Good relations between the Danish Battle Group and the Afghan Police had led to the Danes being informed of Afghan plans (Interview with Danish Officer, 7 March 2018). The plan was to send police officers from Gereshk to participate in an eight-week training course in Kandahar. The ambition was that these police officers would be replaced with personnel that was better trained and equipped. These police officers would constitute the Afghan Civil Order Police. However, when they returned they brought 180 police officers into the area instead of the 240 that had left (Jakobsen & Thruelsen, 2011, p. 94). The consequence was that the police posts in Gereshk had to be closed or manned by Danish troops. Despite ongoing negotiations between the Danish, British and Afghans no solution was found to decide who was to man the Patrol Base Line previously held by the Afghans. In the end, the Danish Battle Group deployed a mechanized infantry platoon to the most northerly bases – Clifton and Britzar – to monitor the situation. What they found were civilians that were looting the Afghan patrol base lines - Spondon and Malvern - of anything of value. The British commander of 11 Light Brigade, therefore, quickly ordered the Danish to retake and man the Afghan bases. The Danish recaptured Malvern soon after the British order, but the high threat of

IEDs and Taliban presence meant that Patrol Base Spondon was first recaptured several months later (Jakobsen & Thruelsen, 2011, p. 95).

The general state of the Danish area of operations in 2010 was severe. Security in the Green Zone had been continuously deteriorating due to British use of Danish troops outside their designated area and decisions by Afghan security forces had sped up the process. The Taliban had utilized every occasion to gain territory, influence and applied IEDs tactically as to maintain dominance around the isolated bases (King, 2010, p. 320). The situation in FOB Budwan stood as a representation of these events. The Danish troops deployed there were highly pressured, and recurring requests for Danish platoons from the British had meant that the base was operating with a minimum of soldiers. The threat posed by IEDs and the Taliban meant that patrols were merely symbolic as contact with either was guaranteed every time troops left the gates (Interview with Danish officer, 13 February 2018). There was, therefore, still barely any Danish control of the area.

Despite the fact that Danish commanders repeatedly described relations with the British as positive, the British use of Danish forces during this period had a significantly negative impact on the Danish military objective of securing the area of Battle Group Center. Task Force Helmand repeatedly overruled objections from Danish commanders and deployed Danish troops outside their area of responsibility. The consequence of British actions was a complete deterioration of the security in the Danish area of responsibility. The deployments of Team 4 and 5 indicated that the Danish command of Battle Group Center did position the Danish forces to obtain a higher degree of autonomy from the British. However, the deployments of Team 6-9 cemented that this was clearly not the case. As seen with Team 4 and 5, the technological developments by the Taliban regarding the use of IEDs posed operational challenges that triggered learning. The changes in the construction of IEDs produced not merely adaptive measures in the battlefield (Stage 1), it also created changes in Denmark. By retrofitting equipment in the Danish Army, the Defense Command addressed an immediate operational challenge by mid- to long-term problem solving without requiring the institutionalization of new practices (Stage 2).

Training Afghan Security Forces

Team 10 arrived in August 2010 consisting of 1 Battalion of the Royal Life Guards. The defining change in the operational environment for Team 10 was the arrival of 20,000 American soldiers to Helmand (Farrell & Giustozzi, 2013, p. 868). The “surge” enabled needed assistance to overstretched British and Danish forces. The American forces took responsibility of Musa Qala and Sangin, allowing the British to concentrate on the area between Lashkar Gah and Gereshk (Farrell et al., 2013, p. 117). This, in turn, meant a reduction of demands for Danish troops outside their area of operation. Furthermore, Afghan security forces increased their numbers in the Danish area. Following a new strategy outlined in the American commander of ISAF General McChrystal’s strategic assessment of ISAF operations (‘COMISAF Initial Assessment’, 2009), the Danish Battle Group were to train the Afghan security forces. The *Danish Helmand Plan 2010* further cemented the new Danish objective (Udenrigsministeriet, Danida, & Forsvarsministeriet, 2010b, p. 10). The Danish commander of Team 10 suggested a concentration of forces near Gereshk and closure of FOB Zumbelay and FOB Budwan to accommodate a shift from military operations to the new partnership and training approach. In this approach, the proximity of the civilian population was an essential element (Udenrigsministeriet et al., 2010b, p. 12). It, therefore, seemed logical to close the FOBs that were far away from the city of Gereshk. Task Force Helmand objected at first but eventually agreed. FOB Zumbelay was closed in October 2010, and FOB Budwan closed in January 2011 (Udenrigsministeriet, Danida, & Forsvarsministeriet, 2011, p. 71). The Deh Adam Kahn area located between Gereshk and the Patrol Base Line became the primary operational focus for the Danes. Operational plans became increasingly developed with Afghan authorities and security forces, and the relocation began in October 2010. During October and November, Danish forces experienced fighting on an almost daily basis but with American and Afghan assistance dominance in the area was achieved (Jakobsen & Thruelsen, 2011, p. 98). Team 10 could now begin its training of Afghan security forces (Rasmussen, 2011, p. 112). The Arrival of 3 kandak (Afghan equivalent to a battalion) to Camp Gereshk near the Danish headquarters in Camp Price in the spring of 2010 signified the beginning of this process (Udenrigsministeriet et al., 2011, p. 70). The training consisted of Afghan units patrolling alongside the Danish to gain tactical insight into military conduct.

The ambition was that the Afghans were to replace ISAF manned bases. Training the kandak in camp operations was, thus, a priority. The training involved how to conduct the necessary logistics and security required to run a camp. Towards the end of Team 10's deployment, Afghan and Danish soldiers established the new Patrol Base of Shia Agha in January 2011 with two bases – Compound 31 and Patrol Base Viking – established in the following months (Jakobsen & Thruelsen, 2011, p. 98). These bases were manned by both Afghan and Danish troops to foster the partnership that would remain the focus for the future teams.

The surge of American soldiers to Helmand allowed the Danish Army to pursue its military objectives as the British need for applying Danish troops outside its area of operations decreased. An increase of Afghan security forces to Danish territory further enabled a stabilization of the security situation that had been in a continuous state of deterioration over a long period.

The Anglo-Danish Experience in Helmand

When Denmark arrived in Helmand in 2006, it was with the ambition of operating alongside its larger and stronger ally, the British. It was a signal to its commitment toward NATO and the United States (Jakobsen & Ringsmose, 2014, p. 218). Denmark did not have the capacity to operate without a partnership. The Danish government decided that the most significant contribution relied on Britain's ability to apply Danish forces' military effectiveness. It was, therefore, deemed necessary that Danish troops be made available to the British without caveats (Rasmussen, 2011, p. 31). The organizational and operational framework of the British Task Force Helmand determined the Danish experience in Helmand. The decisiveness of the British impact on the Danish Helmand experience was substantially increased as not a single commander deployed from 2006-2010 received operational guidelines from the Danish Defense Command. It was, therefore, the British commanders that determined how the Danish Army were to react to requests from NATO and the Afghan authorities. The British were responsible for translating the intentions of the commander of ISAF into operational activities before they reached Danish commanders. This approach was reinforced by British military culture where commanders determine their own concept of operations (Farrell, 2010, p. 784). Danish operational activities were, thus, a result of an interpretation of NATO directives that reflected British priorities and the understanding of the mission of each British commander. In addition, the Danish contingent to Helmand only consisted of 232-281 troops from Team 1 to 4, and the dependence upon the British brigade limited Danish leverage when disputes occurred relating to operational decisions (Jakobsen & Thruelsen, 2011, p. 80). Acknowledging the likelihood of this reality, the Danish Defense Command had early on planned to deploy a battle-sized group to Helmand, which would enable assuming the responsibility of its own area of operations (Rasmussen, 2011, p. 32). In 2007, Danish troops reached 550, and by 2008 the Danish engagement in Helmand consisted of more than 630 troops with Danish command of Battle Group Center. Despite other ambitions, the increased Danish role in Helmand barely improved negotiating capabilities with the British nor did it increase operational independence (Jakobsen & Thruelsen, 2011, p. 99). From 2008-2010 British orders directly interfered with Danish capabilities to secure its area of operations. Danish troops were repeatedly requested to assist in British operations

outside the Danish area, which resulted in a continued deterioration of the security situation in the Green Zone. Any attempts to re-stabilize the situation were overruled by the British causing Team 6-10 to operate in an increasingly dangerous environment without the resources to gain dominance. A lack of resources drove the British use of Danish units outside its area of operation. The British Task Force had never received the necessary resources to implement its strategy of “clear-hold-build”. Defining for British operations prior to the arrival of American forces in Helmand in 2010 was that British commanders had repeatedly excessively dispersed troops to engage with the Taliban. Without sufficient troops to establish lasting dominance, the British had failed in establishing security and stability to contemplate the building phase (King, 2010, p. 330). The disconnect between resources and objectives that occurred in Helmand was not solely the result of military decisions. British commanders had in part been forced into these decisions by Afghan authorities and the British government despite objections (Jakobsen & Thruelsen, 2011, p. 99). The consequences, however, remained the same.

During the deployments of 2006-2010 to the Helmand province, the operational challenges posed by the Taliban’s use and developments of IEDs were the primary events that drove Danish military learning to occur. Platoon leaders engaged with Stage 1 learning by changing the TTPS related to platoon formations during patrols. These new formations avoided known placements of IEDs in the terrain and subsequently lowered Danish casualties. The findings of a new type of IED that did not register on the common minesweeper equipment deployed to Helmand also caused Stage 1 learning. Officers consulting with members of the Engineer Regiment resulted in retrieving equipment capable of detecting the new IED type. Stage 2 learning occurred, as a more long-term solution to the minesweeper equipment issue was necessary. The Danish Defense Command, therefore, acquired the engineer minesweeper equipment accessible in Denmark and deployed it to Helmand to aid future teams. While the Danish Army acquired new knowledge, challenges of capturing this knowledge in formal learning system and utilizing it became evident. These challenges are explored below.

VI. Knowledge Management in the Danish Army

This chapter focuses on how the Danish Army engaged with learning through mid-to long-term event interpretation (Stage 2). This chapter begins with considering how Danish military culture shapes the manner in which the Danish Army engages with learning. The following section explores the development of formal learning systems that occurred to adapt to demands in the operational environment. Attention will be given to deployment hand-over and pre-deployment training and how soldiers' informal learning systems were an intrinsic part of the learning process. The chapter then examines archival issues that have existed within the Danish Army and how these issues have posed significant challenges for the organization's knowledge management. The chapter concludes with determining if changes to formal learning systems, alongside the findings of this thesis, have enabled organizational learning (Stage 3) to occur in the Danish Army and to what extent.

Danish Military Learning Culture

At the core of Danish military culture is the notion of “militær faglig”. The term is most often used to describe a professional military assessment and is best translated as “the military vocation” (Farrell et al., 2013, p. 147). The most defining feature of the term is its notion that due to the distinctive nature of the military profession and the required skill-set, only military personnel, especially officers, are experts on military matters (Farrell et al., 2013, p. 148). The concept of “militær faglig” is significant for learning in Danish military culture in three ways. The first impact is on the role of education. “Militær faglig” means that each position in the military demands specific training. A soldier is not allowed to utilize any equipment if the qualifying training has not been received. The training culture exists to such a level that military personnel is not allowed to drive the Danish military's civilian vehicles without receiving the proper training despite already having a civilian driver's license (Rasmussen, 2011, p. 34). The training culture means that Danish soldiers are highly competent within their core competencies and, as demonstrated in the previous chapter, also capable of engaging with problem solving in the battlefield. However, this author hypothesizes that the consequence of such culture is that the Danish Army as an organization is less prone to engage in organizational learning as a result of strong organizational memory. As presented in the literature review, military

organizations with good organizational memory are averse to change as its preservation of proven methods reduces the desire to seek alternatives.

The second impact that “militær faglig” has on learning is how it affects informal learning systems. As the foremost military experts, officers in the Danish military are highly respected. The rank of officer provides admission to an exclusive and closely-knit community. An officer’s standing and participation in this community are vital to the officer’s success as it allows access to as well as transmission of knowledge (Kristensen & Larsen, 2010, p. 15). Informal learning systems, therefore, play a crucial role in an officer’s learning, especially in situations where the formal learning systems are insufficient (Interview with officer, 13 February 2018). The third impact that “militær faglig” has on learning in Danish military culture is the reliance on officers’ capabilities. The Danish military places a high level of responsibility of learning on the individual officer (Interview with officer, 7 March 2018). Danish officers are, therefore, trusted to solve operational issues and adapt to changing circumstances independently. While Danish officers have repeatedly shown that they are capable of carrying such responsibility, the learning processes that they engage within Helmand have despite their abilities faced substantial organizational challenges during their deployment. The following section will explore how these aspects were central in defining the learning experience of the Danish Army in Helmand.

Transfer and Capture of Lessons Learned in Helmand

This section provides an overview of formal learning systems in the Danish Army applied during the deployments to Helmand from 2006-2010. The interaction between formal and informal learning systems is also explored.

End-of-Tour Reports & Seminars

Central for capturing the knowledge generated during deployments were the End-of-Tour reports. These reports were the official procedure during the deployment of Teams 1-5. The reports were developed according to a standard format where all function areas were systematically addressed including the outgoing unit’s lessons identified, recommendations and proposals for changes in doctrine, procedures, organization, equipment, and training (Andersen et al., 2016, p. 68). However, the Danish Army began to understand that these reports were overly time-consuming and the application of knowledge gained from these reports could first be utilized in the

area of operations after the rotation of two teams. Consequently, The Danish Army modified organizational practices in Denmark (Stage 2) in order to accommodate these challenges. From Team 6 the Danish Army replaced the End-of-Tour report with debriefing through seminars when the teams rotated back to Denmark. The involved parties were the returning unit, the unit that was deploying approximately five months later, and the responsible functional agencies, commands, schools, organizations, and authorities. The change from written to oral debriefing arguably allowed for immediate actionable lessons. However, the changes to the lessons learned procedures resulted in a severe lack of documentation regarding decisions that emerged from these seminars (Andersen et al., 2016, p. 68). The change from written to oral lessons learned thereby drastically impaired the capture of knowledge within the Danish Army as knowledge remained only with personnel that was directly involved in the process. Without the capture of knowledge within the organization, the Danish Army is not able to review and understand what it has learned. Consequently, the emergence of organizational learning in the Danish Army becomes less likely.

Deployment Handover & Pre-deployment Training

Besides written and oral lessons learned evaluations, a system of direct handover occurred between the teams in the area of operations. The handover was set for approximately one week. However, the quality of the handovers significantly varied. Some teams experienced that weather conditions and the security situation shortened the handover, directly affecting the quality of the handover. Other teams experienced a highly effective handover in instances where their predecessors introduced the newly arrived team to all local partners, while other handovers barely occurred (Andersen et al., 2016, p. 69).

Following the return of Danish troops deployed to Helmand, selected officers were chosen from a team, to partake in educating the team that would follow their replacement. Thus, Team 6 was involved with educating Team 8 and so forth. The experiences that were passed on during training, however, were in some cases already outdated by the time that the newly trained team arrived in Helmand (Interview with officer, 13 March 2018). The training of teams was further complicated by differences in types of regiments that were responsible for the education. Team 8 consisted of a reconnaissance battalion from the Guard Hussars and was trained by Team 6 that

consisted of a battalion from the Jutland Dragoons that operated with a tank company and a mechanized infantry company. The mode of operations familiar to these battalions was entirely different from each other, and the lessons learned by Team 6 were, therefore, barely applicable for Team 8 (Interview with officer, 13 March 2018). In addition, this period of education often depended on the personal relationship between the officers from each team. Officers in good standing with each other had detailed discussions, permitting the deploying officer to gain insight into various matters despite operational differences. In contrast, officers who did not establish rapport experienced limited gains from the pre-deployment training (Interview with officer, 13 March 2018). On several occasions, teams deployed to Helmand to find that reality significantly differed from the training and information that they had received. As a result, the teams stationed in Helmand would in response have to relearn lessons learned and develop new procedures and routines based on the team's own experiences to cope with the challenges they faced. While this approach solved short-term challenges, it has weakened the effect of the transfer of lessons learned in training of teams and complicated long-term anchoring of knowledge within the organization (Andersen et al., 2016, p. 69).

Deployment handover and pre-deployment training have both involved informal learning systems. When successful, informal learning systems have allowed individuals to address the perceived knowledge gaps in the formal learning systems through knowledge sharing among members of the Danish Army. At other times, members of the Danish Army have been unable to access the knowledge within informal learning systems. Consequently, the learning outcome for members of the Danish Army has greatly varied.

Archival Issues: The Missing Reports

Issues with information transfer further challenged Danish deployments to Helmand. Reports and intelligence assessments that were written by previous teams were sent into the deployed battalion staff and to the Army staff (Danish: Hærstaben) in Denmark. It was repeatedly raised in interviews that teams would arrive in Helmand without the knowledge of these reports that could have aided Danish operations. A critical example occurred during the deployment of Team 8 when a unit on patrol hit a minefield despite the minefield being noted in a report written by Team 2 (Interview with officer, 13 March 2018). Issues with access to the repositories of knowledge of

the Danish Army were also present during the transition from Team 10 to 11. At the end of CIMIC officers' deployment, they are asked to develop a Base Line Assessment where information is collected on ongoing projects, local partners and other relevant information. This assessment is then given to the new CIMIC officers deploying to Helmand. Despite an established structure to assist these officers with lessons learned and other valuable intelligence, Team 11 arrived without having received Team 10's Baseline Assessment. It was only due to the CIMIC officers on these teams having previously trained together, which enabled the CIMIC officer of Team 11 to personally contact the previous officer to receive a copy of the report (Interview with officer, 12 March 2018). The lack of necessary intelligence additionally enhanced the repetition of learning cycles in each team's deployment and knowledge and experience has consequently not been continuously developed. The lessons learned by Team 9 are thereby nearly identical to those made by Team 4.

In addition, the use of different systems for the registration of documents has further complicated the archiving of Danish reports sent from Helmand. The political parties behind the Danish engagement in Afghanistan, commissioned a report at the end of 2014 to identify lessons learned discovered that material relevant to the report was unable to be retrieved from the Danish national archives as it could not be located. The report explained that the alliance structure in Helmand had likely caused Danish material relevant for documenting lessons learned to be found in British national archives but such material has not been accessible for Danish use (Andersen et al., 2016, p. 13). The report also stated that The Danish Army has not had the habit of saving working documents. The lack of documentation means that many of the discussions that led to decisions, and thus potential lessons learned, have been permanently lost (Andersen et al., 2016, p. 18).

Explaining Danish Military Learning in Helmand

Stage 1) Event + Short-Term Event Interpretation

During deployments to Helmand from 2006-2010 combat experience with the Taliban revealed operational challenges for the Danish Army. The application of IEDs by the Taliban forced Danish troops to adapt as the number of casualties, and wounded soldiers began to increase. In response officers altered their TTPs and developed new platoon formations for patrols that minimized Danish contact with IEDs. These adaptations were shared through informal learning systems and never captured in

formal learning systems. In addition, during the Danish deployments, the Taliban developed a new type of IED that contained a minimum of metal. The Danish minesweeper equipment could, therefore, not detect these IEDs. In response, Danish troops adapted by retrofitting their minesweeper equipment during deployment to address this immediate operational challenge.

Stage 2) Mid- to Long-Term Event Interpretation

As the Danish Defense Command was informed of the new type of IED in Helmand of the solution that seemingly solved the operational challenge, the remaining minesweeper equipment in Denmark was retrofitted and deployed. However, what constituted the most significant change in this stage was the alteration of a formal learning system. As the first years of deployments to Helmand passed and the Danish Army began to amass experience, a number of understandings became apparent for the personnel involved with the End-of-Tour assessments. The first realization was that written documentation was overly time-consuming and it took too long to apply the knowledge gained. To establish a process that was more efficient at transferring knowledge, the written reports were replaced with seminars, where information was engaged with verbally. While the shift in procedures did achieve a more effective transfer of knowledge, the change in procedures meant that knowledge solely remained with the parties directly involved in these seminars. Danish soldiers also employed informal learning systems in order to improve learning during pre-deployment training and share adaptive responses to the immediate operational challenges in Helmand. However, knowledge generated in the informal learning systems remained with the individuals involved and was not captured within the organization. In addition, members of the Danish Army experienced issues with access to the organization's repositories of knowledge. Knowledge captured within these repositories did not always reach its intended audience. Danish Army personnel, therefore, relied on informal learning systems to address the deficiencies in the organization's knowledge distribution. What has defined this stage of learning is the prioritization of temporary problem solving over the development of formal learning systems that could permanently capture knowledge within the organization.

Stage 3) Organizational Learning

The Danish Army knew and prioritized that Danish troops would operate within a British framework. Consequently, the Danish ability to operate within a British framework in Helmand became the benchmark for successful learning in the Danish Army. As Danish troops were made available for British troops without caveats, Danish troops would not be able to set a strategy and shape operations independently. Based on this knowledge the Danish Defense Command decided that Danish commanders would not receive operational guidelines but adhere to their British superiors. As adapting to the British framework has been the primary objective for Danish military learning in Helmand all learning that has occurred in the Danish Army during this period has focused on fulfilling this objective. The alterations to the End-of-Tour assessment were not made to enhance knowledge capturing within the organization but rather to increase short-term application of experiences. The lack of following documentation of the verbal transfer of knowledge has caused lessons and decisions to be lost to all but the personnel who were directly involved.

Additionally, there has not been a practice of archiving operational documents, which makes it extremely difficult to conduct a retrospective study of lessons learned. The systematic issues with knowledge capturing within the Danish Army have meant that lessons that should have been continuously developed and, therefore, subject to adjustment and improvement of learning, became a circular process where the same lessons were repeatedly relearned. Such circularity was increased by the lack of a long-term Danish strategy, which meant that each team often became a unique entity instead of parts of a collective effort. The lack of knowledge capturing mechanisms has meant that lessons learned have not been systematically exploited, which has created deficiencies in the formal learning systems. These deficiencies appeared during both deployment handover and pre-deployment training. Danish troops, therefore, diligently utilized informal learning systems by gaining and transferring knowledge through their social networks to address the apparent deficiencies.

Prioritizing assimilation with the British framework has meant that the Danish capability of institutionalizing new knowledge has been greatly diminished. The vast amount of knowledge generated between 2006-2010 has remained with the soldiers deployed during this period. The failure to capture their knowledge has meant that the high turnover in personnel that the Danish Army experienced following Afghanistan

has likely resulted in the permanent loss of extensive organizational knowledge. It seems that any successful adaptation acquired in Afghanistan has not been institutionalized in the Danish Army. The emergence of organizational learning as result of the Danish deployments to Helmand is, therefore, seemingly absent.

VII. Discussion

In this chapter, other avenues for research within military innovation studies will be discussed, and it is proposed that organizational culture and social interaction can contribute to understanding learning processes, which would allow exploitation of organizational knowledge and capabilities.

As this thesis has highlighted military learning during Danish deployments, it would seem evident that an increased understanding of Danish military learning would require exploring everyday organizational learning structures, processes, and culture. While such everyday analyses may not evoke the same excitement among researchers as an exploration of military organizations in war does, it would provide an invaluable understanding of how the Danish Army engages with learning. Research on military learning in peacetime could enable comparative analyses that could expose the strengths, weaknesses, and biases of different military organizations (Griffin, 2017, p. 214). As Murray and Watts (1996) have noted, awareness of and critical engagement with learning processes in militaries during peacetime will likely impact organizational capabilities during wartime. In addition, developing a research agenda that challenges the notion that cultural approaches “by themselves, do not provide much additional explanatory power beyond existing structural theories” (Desch, 2005, p.2) would contribute to the theoretical development in the field. Even if threats in the operational environment remain a primary driver of military innovation and adaptation, acknowledging the explanatory power of culture may have a significant impact upon the subsequent character of any resulting reforms (Griffin, 2017, p. 215). While organizational culture may contribute with valuable insight into processes of organizational learning, a growing body of research recognizes an equal importance of the capturing of knowledge through social interaction and relationships among individuals and groups (Catignani, 2012; Farrell, 2010; R. T. Foley, 2012; Laugen Haaland, 2016; O’Toole & Talbot, 2010; Russell, 2011). Though this thesis has touched upon the subject, more research would be required to determine how informal networks could affect knowledge exploitation and capability exploration of an organization. Such research could investigate social network structures and aid in understanding different institutional configurations that result in differences in the efficiency of learning systems (Catignani, 2014, p. 59).

While informal learning allows for the effective distribution of knowledge among the members of the organization, the failure to capture the knowledge situated both within units and individuals means that the captured knowledge would not be utilized to full potential benefit. While formal learning systems may allow for the incorporation of new knowledge within the organization, formal learning systems are challenged by the lag in the time it takes to complete the acquisition process and disseminate operationally relevant knowledge for units about to deploy to operations.

Disseminating new knowledge within an applicable time frame requires balancing between over-contextualization and de-contextualization. The challenge of over-contextualization occurs in communicating context-specific knowledge to such a degree that it becomes difficult to apply in any other situation. In contrast, the effort of making knowledge generally applicable can cause de-contextualization, where important details are left out that renders the knowledge incomplete (O'Toole & Talbot, 2010, p. 62). It would seem that to improve an organization's use of each learning system, different actions are required. For formal learning systems to remain relevant and adaptable to changes in the operational environment, such systems must address the manner in which soldier acquire and share knowledge. Developing flexible mechanisms of knowledge acquisition, capture, and distribution are, therefore, vital for creating successful formal learning systems. However, flexibility must not undermine the long-term goal of developing organizational learning as seen in the Danish Army in Afghanistan. In relation to the informal learning systems, military organizations must acknowledge the importance of social networks, as means of learning. Fostering opportunities for interaction between units will increase informal learning systems ability to constitute a necessary addition to formal learning mechanisms (O'Toole & Talbot, 2010, p. 62). Additionally, exploring how formal and informal learning systems interact and the factors that influence such interaction may reveal mechanisms for how unit-based military adaptation evolves into organizational learning/ military innovation.

Both formal and informal learning systems assume that knowledge is acquired through experience. However, as argued by Levinthal and March, experience is "often a poor teacher, being typically quite meager relative to the complex and changing nature of the world in which learning is taking place" (Levinthal & March, 1993, p. 96). This is especially applicable to the environment of international military operations. While experience may remain a primary source of knowledge creation,

there exist flaws in experience-based learning that are necessary to address. First, interpreting experiences is a difficult task, and the risk of incorrect assumptions about causal relations is high. The ambiguity of events can cause misinterpretation of experience. Such ambiguity can occur due to a delay between cause and effect. This can lead to what March and Levitt call superstitious learning, meaning that actors develop a subjective learning experience where the cause of action and outcome is not certain and can, therefore be misattributed (Levitt & March, 1988, p. 326).

Superstitious learning can lead to lessons learned based on an invalid conclusion about causal relations (Laugen Haaland, 2016, p. 1003). Second, experience-based learning may confirm preconceived assumptions. Experiences that disputes these assumptions can result in adverse information being discarded (Brehmer, 1980).

Military organizations are, thus, likely to pursue learning within an existing cognitive framework. Even if cognition is altered, it does not guarantee that it will cause a change to organizational behavior (Argote, 2013, p. 32). So the lack of change does not necessarily indicate that lessons have not been learned (Laugen Haaland, 2016, p. 1003). Third, as the rotation structure during deployments mainly enables the observance of short-term effects, deployment experience becomes limited by the temporal and spatial scope of its occurrence. In short, the link between experience and learning is often complex, and fluid nature of their relations should be considered in lessons learned procedures. Lessons are not objective truths and usually the result of multiple interpretations of ambiguous events. Identified lessons can serve several purposes, and despite being widely accepted, they do not necessarily change organizational behavior in the desired manner as other concerns are prioritized (Laugen Haaland, 2016, p. 1004).

VIII. Conclusion

During the past two decades, Denmark has consistently participated in international operations of significantly increased intensity and scope. It emphasizes the need for understanding how the Danish Army learns from its experience in these operations.

This thesis focused on military learning during the Danish Army's deployments of Teams 1-10 (2006-2010) under the command of the British-led Task Force Helmand. When Denmark arrived in Helmand in 2006, it was with the ambition of operating alongside its larger and stronger ally, the British. It was a signal to its commitment toward NATO and the United States. Britain was the preferred partner for the Danish Defense Command as they aligned with Danish operational needs and the previous collaboration in Iraq had proven positive. The Danish government decided that for the British to apply Danish military force efficiently, it was deemed necessary that Danish troops were made available without caveats. The British Task Force Helmand framework, thus, determined the Danish experience in Helmand. The Danish ability to operate within a British framework in Helmand, therefore, became the benchmark for successful learning in the Danish Army. Consequently, not a single Danish commander deployed from 2006-2010 received operational guidelines from the Danish Defense Command. While the Danes perceive the collaboration as positive, the Danish benchmark for success has negatively impacted the Danish Army's ability to achieve organizational learning by disregarding internal learning processes. The Anglo-Danish collaboration has also significantly inhibited the Danish Army's abilities to achieve its military objectives in Helmand.

To study learning processes, this thesis introduced an analytical framework that explores learning through three stages along with four shaping factors. The thesis concludes that Stage 1 learning occurred in Helmand to address issues through short-term problem solving in response to operational challenges posed by the Taliban's use of IEDs. While adaptive measures were created in response to the development of a new type of IED, it was changes to formal learning systems that were decisive for Stage 2 learning. As the Danish Army recognized that it was taking too long to utilize the knowledge in written reports a shift to oral seminars was made to ensure immediately actionable lessons. However, the turn to verbal knowledge exchange meant a failure of capturing knowledge within the organization, as there was no documentation of lessons learned. Prioritizing assimilation with the British

framework meant a disregard for the Danish capability of institutionalizing new knowledge. The vast amount of knowledge generated between 2006-2010 has remained with the soldiers deployed during this period. The failure to capture their knowledge has meant that the high turnover in personnel that the Danish Army experienced following Afghanistan has likely resulted in the permanent loss of extensive organizational knowledge. Knowledge has, therefore, not been captured and institutionalized in the Danish Army. Consequently, Stage 3, organizational learning, has not emerged as the result of Danish deployments to Helmand.

Additionally, the systematic issues with knowledge capturing within the Danish Army have meant that teams repeatedly relearned the same lessons. To address deficiencies in the Danish Army's formal learning systems, informal learning mechanisms were employed by personnel in order to improve pre-deployment training and to deal with the immediate operational challenges faced in Helmand.

When members of the Danish Army have sought knowledge, either through the formal or informal learning systems, Danish Army personnel have still struggled to gain sufficient knowledge. If formal learning systems are to aid the Danish Army in a complex and demanding environment, the organization will need to find ways of developing systems capable of addressing immediate operational challenges while ensuring that knowledge generated in informal learning systems is incorporated into its knowledge repositories.

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