



# Foreword to the Special Issue on Military Exercises and Wargaming In Professional Military Education

COLLECTION:  
WAR GAMING

**RESEARCH ARTICLE**

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## ABSTRACT

This foreword provides the context for introducing the 11 articles constituting this Scandinavian Journal of Military Studies' special issue on the topic of military exercises and educational wargaming. It does so by describing the subject matter and the research project that made this publication possible. It also brings to the fore two assumptions that underpin the project. First, how critical officer competence is to national defense; without it even the most well-equipped armed forces will crumble when put to the test. Second, it illustrates the educational value that military exercises and wargames provide in developing officer competence by situating military students within a professionally relevant, engaging and challenging learning environment that mirrors realistic scenarios they will encounter, but without the risk associated.

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This special issue of the *Scandinavian Journal of Military Studies* makes a case for the value of exercises and wargames in professional military education. In particular, it elaborates on the ways Norway has used such methods for the purposes of research and the development of officer competence. Before briefly introducing each of the substantive articles, this foreword relates the context of the topics they discuss. First, it presents a definition of the central theme; second, it introduces the research project that has inspired this publication; third, it clarifies some of the basic assumptions which, although not necessarily explicitly discussed by all authors, nonetheless underpin all contributions in this volume – notably that officer competence is valuable, and that military exercises and wargames are powerful educational methods for the development of such competence.

In his introduction to this special issue, Peter Perla (2022), the seminal scholar in the field, defines the wargame as “a model involving people making decisions in a synthetic environment of competition or conflict, in which they see the effects of their decisions on that environment and then get to react to those changes.” Through this prism, educational wargames focus on *how* people make decisions. The purpose of a wargame is not the teaching of any “correct” decision as defined by educational staff; wargames are conducted so that the player might learn to make well-reasoned decisions more quickly. Wargames are distinguished from literature, film, and other pedagogical methods used in professional military education to impress real-world experiences on future military leaders by the student’s active participation in deciding how professionally relevant problems should be solved (Perla & McGrady, 2011, p. 113).

This volume results from a research and development project carried out between 2021 and 2022 by staff of the Norwegian Defence University College (NDUC) and the Norwegian Defence Research Establishment (FFI) in cooperation with some of the world’s leading educational wargaming experts. The project is funded by the NDUC and supports its overall strategic goal to “develop the future leaders and decisionmakers of the armed forces” (Norwegian Defence University College, 2019, p. 2). It does so by enhancing cooperation with what Sebastian Bae (2022) refers to as the world’s “many disparate islands of excellence” on the topic of wargaming. There is a tendency among educators and researchers, including those in Norway, to design and use wargames for their own purposes without necessarily drawing from, and sharing experiences with, others – their closest colleagues, perhaps, excepted. As a measure to counter this tendency, the project invites protagonists on such “islands of excellence” to share and discuss their ideas about the use and utility of exercises and wargames.

Doing so, it approaches the topic both as a tool for research and education and as a field of study in its right. As such, the research project is directly relevant for the participants and the institutions they represent; more broadly, it aims to contribute to an emerging academic literature on the subject. This special issue features the project’s main findings. A closely related project output was NDUC’s (2022) international conference “Exercises and Wargaming in Professional Military Education” held at the Royal Norwegian Navy Academy in May of 2022. In an effort to strengthen the NDUC’s cooperation with other “disparate islands of excellence” in the field, the conference gathered this volume’s contributors along with other members of the Norwegian defense establishment, civilian universities, the professional military education program across the NATO alliance, and the broader global community of wargamers.

Using military exercises and wargames as a means to develop professional military expertise rests on two assumptions that should be addressed at the outset.

The principal assumption is that officer competence is valuable. While the contributors find this to be self-evident, others seem to focus more on the costs of cultivating such competence, as reflected in the ever-increasing priority given to procuring sophisticated weapon-systems over education in defense budgets. Yet when put to the test, even the most well-equipped armed forces will collapse if the officer corps does not know how weapons and soldiers should be used in the pursuit of given objectives. Winning even a minor firefight requires that military leaders know how to combine, say, infantry and indirect fire. And they will need broader and more advanced professional expertise as they are promoted to carry out military operations that involve land, air, and naval forces. The shortcomings of the Russian armed forces during the initial months of the 2022 invasion of Ukraine highlight the danger of taking professional military expertise for granted and the assumption that the massive application of military force automatically delivers desired political results.

Similar lessons have been drawn from recent Western-led military operations in Afghanistan and Iraq. The U.S. Joint Chiefs of Staff, for one, finds its armed forces have fallen short in the kinds of wars they have fought since September 11, 2001 ([U.S. Joint and Coalition Operational Analysis, 2012, p. 7](#)). Likewise, an official report from the Norwegian Ministry of Foreign Affairs and Ministry of Defence ([2016, p. 11](#)) concluded that Norway's contribution to the international military coalition in Afghanistan from 2001 to 2014 achieved few political objectives other than being seen as a good ally. Clearly, pursuing national security goals requires more than professional military competence. But without it, states will be left with armed forces of little political utility.

This fundamental assumption prompts the question of how professional military expertise can be developed. This is a conspicuously important question at the NDUC, which increasingly recruits cadets – young people studying to become officers – directly from high school; during a three-year military bachelor education, the NDUC will consequently prepare young men and women with no prior military experiences to become junior officers at the age of 23. After being commissioned as officers, they can expect to be deployed as military leaders to international operations within a few years, and must be prepared to make life-and-death decisions in situations characterized by high complexity, danger, and stress.

This leads to the project's second assumption: that military exercises and wargames are powerful tools for the development of the competence necessary to make expedient decisions in war. The assessment of learning effects in higher education is a contentious field of inquiry ([Baartman et al., 2013](#)). Yet the long tradition of using such tools in military academies across the world, along with experiences and cadet-evaluations of wargames brought forward in this volume, suggest that these methods are effective. Moreover, several readily available pedagogical methods used at other professional educations cannot necessarily be adopted by the armed forces. A medical student, for instance, can practice what she learns in class on real patients in a hospital; a student teacher can practice with real pupils in a classroom. Cadets, however, rarely gain military experience in real wars as part of their education – and fortunately so, one hastens to add. Hence, exercises and wargames remain the best-known alternatives to gain professionally relevant experiences from war-like situations. In sum, the learning methods discussed in this volume are arguably superior to other methods because they facilitate experience-based learning in professionally relevant contexts; they are risk-free and, not least, they engage students.

Against this backdrop, we can now briefly introduce each of the substantive articles in this special issue. The authors, being military professionals and civilian scholars who have spent much of their careers on exercises and wargames at military research establishments or education institutions, are in particularly good positions to present and discuss the subject.

The renowned wargaming scholar Peter Perla reflects on his life-long dedication to wargaming in the U.S. Navy. He argues that wargames are a unique method for educating future national security professionals, both civilian and military, because they cultivate the kind of mindsets – or “mental muscle memory” as he calls it – required to operate effectively. He invites new generations of wargamers to engage in the field's pertinent issues and recommends they integrate research and educational wargaming rather than conceiving them to be two separate activities.

Drawing from three decades of wargaming experiences in the British armed forces, Tom Mouat summarizes the utility and pitfalls of wargaming as a pedagogical method and a planning tool.

Håvard Fridheim lays out practical recommendations for the successful planning and implementation of wargames at strategic and operational level based on his experiences within the Norwegian defense establishment.

Informed by philosophy of language, Kjetil Enstad warns against a common understanding that wargames and “reality” can be easily distinguished from each other. Military exercises and wargaming shape the future military leader's understanding of the real world, their role within it, and consequently their decisions.

Mass Soldal Lund unfolds his experiences with designing and conducting cyber security exercises for cadets at NDUC's Norwegian Cyber Engineer Academy. He draws from literature on the topic to examine and reflect on ways such exercises may be improved.

Carsten F. Roennfeldt, Daniel Helgesen, and Bjørn Anders Hoffstad Reutz make the case for wargames in professional military education. With classroom examples from NDUC's Norwegian Military Academy, they demonstrate how a simple matrix game can help future military leaders gain a strategic and analytical mindset.

Classroom experiences also illustrates Vårin Alme and Adeline Hvidsten's principal argument that wargames must be a two-step process: gaming and debriefing. Students learn more when they first gain experiences in a game and subsequently reflect on those experiences.

Drawing from her teaching experiences at NDUC's Norwegian Military Academy, Anne Marie Hagen shows how insights from positioning theory and literary narratology can be used to analyze and improve the way wargamers make sense of game-events and reason to achieve their objectives.

Dagfinn Vatne, Mona S. Guttelvik, Alf Christian Hennum, and Stein Malerud show how the FFI uses wargaming as a research tool to analyze Norwegian military operations and find it particularly useful to uncover knowledge gaps and assumptions for further scrutiny.

Karsten Bråthen argues that computer-based simulations can support military leaders in making better operational plans more quickly. He presents experiments undertaken by FFI at the Norwegian Military Academy where such methods were used as part of the formal planning procedures to wargame alternative courses of actions.

Per-Idar Evensen, Svein Erlend Martinussen, Marius Halsør, and Dan Helge Bentsen illustrate how simulation-supported wargames can be used as a research tool, by demonstrating the way FFI has used it to analyze the strength and weaknesses of Norwegian force structure. They discuss a list of best practices identified during more than a decade of simulations.

Taken together, these articles should be seen as an initial and collective inquiry that aims to form a baseline for further research on military exercises and wargames with new partners from both military and civilian institutions. Several contributors stress the need for conceptual frameworks to better assess the learning effects of such methods and to better guide those responsible for improving them. But this volume provides a host of general lessons and practical examples that should be useful for anyone interested in exercises, simulations, and games as a research and educational tool.

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## COMPETING INTERESTS

The author has no competing interests to declare.

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