Chapter Five

WARGAMING IN PME

Introducing Wargaming to the Australian Defence College

*Lieutenant Colonel Scott Jenkinson and Group Captain Jo Brick*

The qualities needed to play all strategic war games well include forethought, the ability to make a plan and execute it, avoidance of the temptation to overreach oneself when experiencing an advantage, and the courage to face unexpected adverse developments calmly and with resolution. These are some of the same qualities which are required of real-life leaders, not just in military jobs but as statesmen and as the managers of large companies.

~ Christopher G. Lewin¹

Social historian Christopher Lewin highlights the value of using wargames in education. The development of strategic foresight, critical thinking, judgment under pressure, and collaborative approaches to problem solving are some of the key learning outcomes when games are used for education. The origins of wargaming for education in standing military forces are generally attributed to the Prussians and the game *Kriegsspiel*, which was developed by a civilian, Baron Georg Leopold von Reisswitz, for Crown Prince Frederick William in 1811.² Since then, many modern military forces use wargames for educa-

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² Lewin, *War Games and Their History*, 41–42.
tion, analysis, and experimentation. In Australia, the current focus is on using wargames for analysis and experimentation. However, the use of wargames in education does not have a strong foundation and is currently employed inconsistently across the Australian Defence Force (ADF). As a result, the ADF has limited experience in the use of games for education and a minimal appreciation for how wargames can enhance learning. The Australian Defence College (ADC) is focused on five key lines of effort to reinvigorate the use of wargaming for education:

1. Find opportunities to incorporate games into formal courses and encourage efforts by current directing staff at the Australian War College to use games to enhance the delivery of formal curricula.

2. Establish a deputy director of wargaming position, whose primary duty is to review ADC courses, to work with commandants and instructional staff, to identify and enhance opportunities for learning through formal/informal incorporation of games into ADC courses and to engage with partner educational institutions across allied and partner nations.

3. Establish an ADC Wargaming Society—a network within the college to normalize gaming—as a means of introducing interested personnel in games and wargaming and is backed by a funded and resourced base at the ADC.

4. Host a seminar on advocacy and education that gathers like-minded groups in the Australian Defence Organisation who have used games for education and training, but also for other purposes (such as analytical wargaming) and to promote the usefulness of games as models.

5. Establish a national and international network for wargaming in education.

This chapter will be confined to an examination of warga-
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WARGAMING FOR EDUCATION

Why, while the clouds of war thickened above them, would a group of serious-minded, middle-aged men waste their time on a board game?

~ Simon Parkin

A Short History
Games offer a means by which students can play with the content and concepts presented to them in lectures and seminars. Games enhance learning through the development of tactical insight and planning and test military plans through simulation. Further, other nonmilitary games may offer learning outcomes about leadership, high-level strategy, and interagency cooperation through abstract game concepts and mechanics. The answer to the rhetorical question posed by Parkin, is that time spent in gaming is there to enhance and complement other education methods by discovery learning, where students take an active role to create, integrate, and generalize knowledge and establish broader applications for skills through activities that encourage risk-taking and problem solving.

The Prussians are generally recognized as the first to use wargames to educate their military forces. As previously stated, Baron Leopold von Reisswitz created *Kriegsspiel* to educate the crown prince. However, the real success of the

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Prussians came after Helmuth von Moltke, as chief of staff of the Prussian Army, mandated the broader use of wargames, particularly at the war colleges.\(^5\) Wargaming was part of the curriculum, which already included strategy, military history, and planning. However, wargames also complemented another innovation von Moltke introduced—the staff ride. This involved von Moltke taking the war college class to a Prussian invasion corridor and asking students to present a plan for battle between the Prussians and attacking forces. Officers were expected to present in turn, starting with the most junior, and the subsequent discussion between the students would result in the development of the plan. This plan would be played on a simple map-based game and be tested.\(^6\) According to Matthew B. Caffrey Jr., the institutionalization of wargaming in the Prussian military enhanced the ability of officers to plan and to mitigate the haphazard competence of their officers, who were often selected on the basis of their aristocratic lineage rather than merit.\(^7\)

Prussian innovation in military education and training was borne out of the drive to defeat Napoleon Bonaparte. But why should the ADF wait for an equivalent formidable adversary to manifest itself? As U.S. Army lieutenant general David Barno and Nora Bensahel argue, predicting the future nature and character of warfare is unlikely to be accurate and this can only be effectively addressed by creating an adaptive culture in modern military forces.\(^8\) A strong planning capability and adaptive culture are keys to success and can be developed through the use

\(^{5}\) Matthew B. Caffrey Jr., *On Wargaming: How Wargames Have Shaped History and How They May Shape the Future*, Newport Papers no. 43 (Newport, RI: Naval War College, 2019), 17–18.

\(^{6}\) Caffrey, *On Wargaming*, 18–19.


of games in education by instilling critical thinking, flexible and adaptive planning in the midst of the contest, and managing the available resources to achieve objectives as the plan makes contact with an adversary.

In the U.S. Army, it is unclear when wargaming became an institutionalized practice. Caffrey estimates that it probably started at the Command and General Staff College, where it was introduced as part of the curriculum. Part of the “application method” used at that school involved teaching subjects in conventional lectures, then small group discussion, and finally an individual plan development that culminated in a group wargame (“map maneuver” or writing orders and executing them against an actual adversary). William McCarty Little wrote and delivered the earliest known lecture on wargaming in 1886, and subsequently wargames were introduced in the Naval War College in 1894. In 1913, William S. Sims introduced wargaming to the broader Navy fleet.

A Problem of Definition
There is no single, commonly accepted definition of wargaming. The North Atlantic Treaty Organization (NATO) defines wargames broadly as: “a simulation of military operation, by whatever means, using specific rules, data, methods and procedures.” Such a wide-ranging and broad definition is of limited use, however, and ignores the central role placed on the decisions of the players.

A purposive approach to defining the term offers greater utility by distinguishing it from other uses of wargames, such as for analysis and experimentation. Focusing on education as the purpose of wargaming ensures that the method is linked

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9 Caffrey, On Wargaming, 24.
10 Caffrey, On Wargaming, 24.
11 The lecture given by William Little Hall at the Naval War College was reproduced in the U.S. Naval Institute Proceedings 38 (December 1912): 1213–33.
12 Caffrey, On Wargaming, 25.
to the learning objectives of a particular program of education or training.

**Purposive Definition**

For the purposes of this paper, the term *wargame* covers games that are representative of military activities, using rules, data, and procedures, not involving actual military forces, and in which the flow of events is affected by, and in turn affects, decisions made during the course of those events by players acting for all actors, factions, factors and frictions relevant to those military activities.  

**Themes and Concepts in Abstract**

Further, the use of the term wargames may be driven more by the need to convey the message that the uses of games are not frivolous but are a serious endeavor for education. This approach allows for a broader perspective on the types of games that can be used for PME. Games, not just wargames (or games with a focused military theme), can enhance PME through the abstract themes and concepts that they present by focusing on conflict and competition through a nonmilitary lens. What becomes important are the characteristics of the games themselves. As noted by Robert T. Hays, “It is not the medium on which the game is played, but its characteristics that make it a game.”  

For this reason, the United Kingdom’s Ministry of Defence *Wargaming Handbook* list of the “core of wargames” is useful. The core of wargames is defined as:

- The players;

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14 “What Is Wargaming?,” LBS Consultancy, accessed 11 August 2021, an acknowledged adaptation from Peter Perla.


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• The decisions they make;
• The narrative they create;
• Their shared experiences; and
• The lessons they take away.

Under this construct, a game does not need a military focused theme to have relevance to PME. The key is to ensure that the game selected is appropriate for the learning objectives and outcomes of the particular course. In the ADF context, it is possible to use either the term game or wargame. The theme of the game is not as important as its relevance to the learning outcomes of education and training courses at each level of the Australian Joint Professional Military Education Continuum, which is Australia’s system to develop mastery in the profession of arms and aims to cultivate an intellectual edge (figure 7).17

More work is required to link appropriate games to the learning objectives in various ADF courses. For example, Joint Professional Military Education and Training (JPMET) levels 1 and 2 are focused on ab initio (beginner level) training and junior officers would generally be focused on tactical mastery. In an army context, this would mean focus on combined arms and tactics. Games such as Advanced Squad Leader or Flames of War may be of use as part of courses for this cohort of officers.18 By contrast, officers from O4 (major) and up (at JPMET levels 3 to 5) would require a greater focus on operational and campaign planning. The U.S. Marine Corps game Assassin’s

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17 See The Australian Joint Professional Military Education Continuum (Canberra, AU: Defence Publishing Service, Department of Defence, 2019), 17. Australian Joint PME levels are: Learning Level 1—Professional foundation (ab initio to first appointment course O2 (1stLt)/APS 2–4); Learning Level 2—Tactical Mastery (O2–junior O4/APS 4–6); Learning Level 3—Operational Art (mid O4–mid O5 (LtCol)/APS 6–EL1); Learning Level 4—Na scent Strategist (senior O5–O6 (Col)/EL1–EL2); and Learning Level 5—National Security Leadership (O7+ (BGen)/SES 1+). These ranks are compatible with those of other NATO members.

18 Advanced Squad Leader (Baltimore, MD: Avalon Hill Game Company, 1985); and Flames of War (New Zealand: Battlefront Miniatures, 2002).
**Figure 7.** Australian Joint Professional Military Education Continuum (modified for context)

<table>
<thead>
<tr>
<th>Induction</th>
<th>Intermediate</th>
<th>Joint</th>
<th>Integrated</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive abilities</td>
<td>Critical and creative thinking</td>
<td>Linear planning</td>
<td>Complex systems thinking</td>
<td>Design thinking</td>
</tr>
<tr>
<td>National security policy and strategy</td>
<td>National and military power awareness</td>
<td>Operational planning</td>
<td>Campaign planning</td>
<td>Theater operations</td>
</tr>
<tr>
<td>Profession of arms</td>
<td>Own domain awareness</td>
<td>Military science</td>
<td>Operational art</td>
<td>Strategic art</td>
</tr>
<tr>
<td>Employment category</td>
<td>Own domain processes</td>
<td>Joint awareness</td>
<td>The art of war</td>
<td>Joint competency</td>
</tr>
<tr>
<td>Joint streams</td>
<td>Basic military skills</td>
<td></td>
<td>Defense Capability Structures</td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>LEAD SELF</td>
<td>LEAD OPERATING SYSTEMS</td>
<td>LEAD CAPABILITY</td>
<td>LEAD INTEGRATED SYSTEMS</td>
</tr>
<tr>
<td>Military ethics and values</td>
<td>Conceptual frameworks</td>
<td>Ethical philosophies</td>
<td>Moral leadership</td>
<td>Lead organizational crises</td>
</tr>
<tr>
<td>Character</td>
<td>Defense values</td>
<td>Trust development through consistency</td>
<td>Mature signature presence</td>
<td>Character excellence</td>
</tr>
<tr>
<td>Culture</td>
<td>Identity awareness</td>
<td>Promotion of ADF culture</td>
<td>Sociologically aware</td>
<td>Multinational leadership</td>
</tr>
<tr>
<td></td>
<td>ADF culture alignment</td>
<td>Celebrate diversity</td>
<td>Cultural leadership</td>
<td></td>
</tr>
</tbody>
</table>

Source: *The Australian Joint Professional Military Education Continuum* (Canberra, AU: Defence Publishing Service, Department of Defence, 2019), adapted by MCUP.

*Mace* or *Twilight Struggle* by GMT Games would be effective complements to education and training courses focused on operational and strategic plans.¹⁰

The drive to include wargames into the ADC curriculum is based on the goal of enhancing lifelong learning that is nec-

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ecessary for the military profession and to develop strategic acumen or strategic thinking traits in the senior cohorts of the defense organization. Wargaming is central to achieving these objectives, as outlined by Philip Sabin as follows:20

- Games highlight questions that are generally overlooked when using only “selective and linear approach of conventional scholarship.” These questions consider underlying influences in conflict, such as the relative importance of leadership, logistics, terrain, and time, and alternative options for key decisions actually taken.
- Wargames convey a vicarious understanding of some of the strategic and tactical dynamics associated with real military operations. This experiential approach to learning provides students with an instinctive understanding for some of the decisions and interactive aspects (action/reaction) that are central to warfare.
- Wargames are a form of “active learning” when compared to traditional lecture and seminar pedagogical methods. Sabin highlights that lectures have the advantage of “rapid delivery of precisely tailored information and interpretations to large audiences” and require minimal preparatory work on the students’ part.21 However, lectures have their weaknesses and Sabin states that “reducing a module equating to nearly three months of full-time study into the learning and repetition of a few dozen hours of lecture material seems to me the very antithesis of education.”22

PME institutions covet the development of strategic think-

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ing as a means of growing the intellectual edge necessary for senior appointments across the defense portfolio. Major General Mick Ryan, commander of the Australian Defence College, wrote:

We should seek to provide our strategic thinkers with real-world experiences that challenge them; construct diverse, multidisciplinary teams that test and extend their skills; and expose them to a wide variety of educational opportunities.\textsuperscript{23}

The dynamic, interactive, competitive, and collaborative nature of wargames provides valuable opportunities to develop strategic thinking through the practical experiences they provide. When combined with the development of knowledge and expertise, wargames fulfill the need articulated by Major General Ryan for “a community of thinkers whose expertise and experience can be connected and meshed to ensure a more fulsome strategic discussion and debate on specific issues.”\textsuperscript{24}

Dr. Murray V. Simons also proposes the importance of “learning the profession” in PME institutions rather than “learning the game” (tricks to earn high grades with less effort) or “learning to be an expert” (topic specific knowledge). According to Simons, learning the profession is the ultimate goal of PME, such as staff college, as it involves students gaining a system-level appreciation and the larger strategic picture. This involves students “joining the dots” and “filling in gaps.”\textsuperscript{25} Dr. Simons taught and implemented many of his ideas at the New Zealand Command and Staff College.

The New Zealand Command and Staff College introduced

\textsuperscript{23} Mick Ryan, \textit{Thinking about Strategic Thinking: Developing a More Effective Strategic Thinking Culture in Defence}, The Vanguard, no. 1 (Canberra, AU: Department of Defence, 2021), 2, https://doi.org/5i74/VAN.001/IJJO7539.

\textsuperscript{24} Ryan, \textit{Thinking about Strategic Thinking}, II.

several different initiatives that did not focus on the production of academic products, such as essays or papers, but other pedagogical approaches such as reflective journals and sessions. By comparison, significant parts of the PME programs at ADC have a traditional, output-based academic focus. Further work needs to be done to include alternatives, such as periods of reflection and practical participation sessions to enhance learning, with wargaming as an important option to draw together the different elements in a system level appreciation that is necessary to learn the profession rather than just focus on purely academic products.

**HISTORY OF WARGAMING IN THE ADF**

Unfortunately, the people who had a major impact on wargaming itself are unknown not only to the general public but also, largely, to today’s military. This struck me as both unjust and dangerous. I also observed that the art, science, and application of wargaming are not always passed on to the next generation. History seems to show that, when used effectively, wargaming provides a powerful advantage, while wargaming amnesia contributes to higher casualties.

> ~ Matthew B. Caffrey Jr.

The ADF suffers from wargaming amnesia. There is no single record of the ADF’s forays into wargaming throughout its history. It is only through the effort of a former U.S. military officer—retired Air Force Reserve colonel Matthew Caffrey—that we have written snapshots of the ADF’s history of wargaming. In *On Wargaming*, Caffrey provides brief outline of the history of wargaming in the ADF, primarily in the Australian Army.

In the early history of the Australian military forces, officer’s

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mess halls were the focal point for socializing and professional development. Sir John Monash was a keen user of games to develop himself and his subordinates. Then-Lieutenant John Monash recommended that wargaming be used as principal development opportunity in messes.\(^2^8\) Later, as Major General Monash, he directed the use of a purpose-built trench system for field training events and wargames to train units up to brigade size.\(^2^9\)

The early years of Australian wargaming involved sending senior officers to allied and NATO war colleges, where wargames are used as part of PME. However, these games were not suited to Australia’s strategic environment due to their scale and the first attempts to develop games of relevance to Australia occurred in the 1970s.\(^3^0\) In 1972, then-Lieutenant Colonel J. C. Grey (who later became a lieutenant general and the chief of the general staff) visited the U.S. Army and saw the utility of wargaming. He wrote a paper that recommended the use of wargames in the Australian Army. This recommendation was endorsed, and in 1977, a Field Force Command War Gaming Conference was held, chaired by then-Colonel Henry John Coates (who was later promoted to lieutenant general and was chief of the general staff prior to Grey). The conference confirmed the value of wargaming to the Australian Army, resulting in the acquisition of wargames from the United States and the United Kingdom.\(^3^1\)

The 1980s were perhaps the pinnacle of wargaming activity in Australia. The Australian Army released “Training Simulation Techniques: War Games,” \textit{Training Information Bulletin 52} (TIB 52), which defined wargaming and described its application. TIB 52 also provided guidance and a list (in the appendix)

\(^{2^8}\) Caffrey, \textit{On Wargaming}, 22.
\(^{3^1}\) McCary, \textit{This Is Not a Game}, 11.
of wargames to be used for individual and collective training.\textsuperscript{32} A significant milestone was the creation of the Australian Army War Game Centre (AWGC) in 1984. AWGC was part of Headquarters Training Command, and focused on two categories of games “pertinent to the Australian Army”: training wargames (decision and procedural games) and wargames for operations research (analysis of force structure and exercise/contingency planning). The AWGC was also focused on developing wargaming skills in the Australian Army.\textsuperscript{33} An AWGC Working Paper (WP 84-21) was subsequently published that explained the requirements for future wargaming in Australian Army. The focus would be on “practicing decision making at all levels, practicing staff procedures from company through to corps headquarters; helping develop, refine, and test contingency plans; and examining force structure alternatives.”\textsuperscript{34} The AWGC became the Army Battle Simulation Group (ABSG) in the 1990s, with a renewed focus to explore the use of simulation for Australian Army capability and analytical wargames for unmanned systems.\textsuperscript{35}

The creation of the ABSG perhaps represents the decline of wargaming in the Australian Defence Force, commensurate with the rise in simulation throughout the 1990s. The ADF Warfare Centre was established in the 1990s to conduct joint operations training for the ADF. The center is now the ADF Warfare Training Centre (ADFWTC) and part of the Australian Defence College. The ADFWTC includes a small Wargaming and Simulation Centre that is focused on “the exploitation of new technologies to improve learning outcomes through the use of Virtual and Augmented Reality products and associated game software.”\textsuperscript{36} Currently, there is minimal focus on the use of ta-

\textsuperscript{32} Caffrey, On Wargaming, 112.
\textsuperscript{33} Army Office Staff Instruction No. 17/84, “War Gaming in the Australian Army,” 1984.
\textsuperscript{34} Caffrey, On Wargaming, 114.
\textsuperscript{35} Caffrey, On Wargaming, 165.
bletop games for PME in the ADF. Most of the extant wargaming capabilities in the ADF are focused on either analytical wargaming or simulation in joint collective training in a live-virtual-constructive (LVC) environment. These LVC capabilities are often employed in major exercises such as Exercise Talisman Sabre in 2021, which is the largest bilateral combined training exercise between the ADF and the U.S. military.

Compared with its strategic allies, particularly the U.S. military, the ADF does not have a strong history or cultural memory of wargaming within PME. The current strategic security environment, punctuated by the blurring of the distinction between war and peace, and characterized by enduring conflict and competition, requires more intellectual effort to develop imaginative and innovative ideas to address contemporary security challenges. As previously discussed, the core characteristics of games and the benefits of using wargames for andragogy necessitate a reinvigoration of wargaming for PME in Australia. However, when compared to the U.S. military, the ADF is a small military force with limited resources. There are existing obstacles to enhancing the use of games for PME in the ADF that need to be addressed to ensure that wargaming for PME is effective and enduring.

OBSTACLES TO WARGAMING IN THE ADF

The ADF’s wargaming amnesia means that there are scant foundations on which to establish a reinvigorated culture and framework for education in PME. This is further complicated by the practical constraints to effective wargaming and by the detachment from using wargames due to the entrenched cultural stigma attached to them.

Sabin outlines three practical constraints that need to be addressed for the effective use of wargaming: expertise, time,
and resources.  

In an educational context, the most important of these is expertise, particularly the need for experienced and confident instructors skilled in the effective use of wargames to achieve learning outcomes.

**Expertise and Instructor Buy-in**

Sabin points out that it is difficult for nongamers to grasp or understand basic wargames. The price of entry to the experiential learning provided by wargames can be high.  

ADF is in a Catch-22 situation: it needs more personnel experienced in wargames that can facilitate seminars and discussions that enhance learning via wargames; however, the ADF also needs to start using wargames in education to develop expertise in personnel who can then instruct and facilitate using games in education.

The way to overcome this gap is to just start using games in education as an alternative method for teaching, particularly when PME institutions have staff who are enthusiastic about games and are willing to both demonstrate their utility through trial and in assisting other instructors. These instructors with wargaming or broad gaming experience are rare and should be nurtured and developed when they are identified in ADF PME institutions.

Dr. Johan Elg goes further than Sabin. The presence of expert wargaming facilitators and instructors is one thing, but instructor buy-in is more important as it is a committed approach to the use of games in education. Elg defines instructor buy-in as “when an instructor has overcome perceptions of deficiencies in comfort, control and credibility when it comes to managing a specific game.”  

Significant investment in instructor development is required to build confidence in the use of games to enhance learning objectives. Instructor development

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courses and guides are essential, particularly for incoming staff at PME institutions. For example, the development of a guide for the use of games similar to the Facilitators Guide to Learning developed by the Australian Defence College specifically for instructors at the Australian War College is an initiative that will assist with instructor buy-in.42

Instructor buy-in is essential for learner buy-in because “the importance of learners’ perception of the instructor’s credibility by far surpasses the actual use itself of games regarding effectiveness of learning.”43 Elg argues that having instructors provide logical explanations for the outcomes in wargames is essential for overcoming “gamer mode” (a concept by Anders Frank, cited by Elg, which means that players play the wargame to win rather than to learn).44 Instructors are necessary to ensure the students make the logical link between the game and the learning outcomes.

Time
Minimizing the time to learn and play games is essential if they are used to complement traditional pedagogical methods such as lectures, readings, and seminar discussions.45 When used in this manner, there may not be time to play entire games as part of a lesson plan, and it would be more useful for the instructor to play a scenario or snapshot of the game to demonstrate a concept or dynamic that is of relevance to the learning objective. For example, a few turns of the game Twilight Struggle, which has an average playing time of 120–80 minutes for experienced players, can be used to demonstrate some of the trade-offs that the adversaries faced to counter or prevent the dominance of the adversary in a particular line of effort: Do I focus my efforts on military operations in one or more regions,
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or do I focus on winning the space race? 46 Is there any way to achieve both strategic goals?

Resources
Resource allocation refers to decisions on whether to invest in the purchase of myriad games (table top or computer), the development of bespoke games by talented individuals that are specifically designed for the needs of the ADF, and the instructor time in learning and effectively facilitating a wargame. 47 These various considerations require finding the right mix between the need to have wargames that can be delivered quickly within facility constraints and staff expertise and providing the students/players with a realistic experience in decision making. 48

The Stigma of Wargaming
The perception of wargames in academia significantly impacts their legitimacy as an educational tool, particularly as part of andragogy. Sabin argues that “the real problem underlying the limited use of wargaming in academia is less that it is impractical and more that it is poorly understood and viewed with real disdain.” 49 This necessitates an approach to increase understanding about the use of games to achieve learning outcomes. This approach involves holding open demonstrations and being clear that there is an element of trial and error when finding the right game to achieve the appropriate outcome for the learner. By contrast, there is little opposition to the lecture-focused approach in most ADF PME institutions and their assumed effectiveness, despite evidence to the contrary. 50 However, more work needs to be done to find the right bal-

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46 Estimate from Board Game Geek for Twilight Struggle.
ance between experiential and traditional classroom methods for education. Wargaming is not relevant to every seminar or course. Wargames are only effective when educators and instructors understand their strengths and where they can most effectively contribute to learning:

Wargaming is simply one more technique, one more complementary perspective, with which to try to come to grips with the intractable problem of understanding the dynamics of human conflict. Rather than providing reliable answers, it is best at highlighting neglected questions. Rather than offering secure predictions, it is most helpful when it produces flawed or unexpected outcomes, since these force users to re-examine the assumptions programmed into the model and think about how it could be improved.\(^5\)

**PATHWAYS TO IMPLEMENTING WARGAMING FOR EDUCATION**

The ADF currently suffers from a loss of wargaming corporate memory, but the ADC is considering several initiatives to reinvigorate the use of wargames for joint PME in Australia. The efforts of the ADC are underpinned by a few principles that will guide the reintroduction of wargaming into Australian PME:

- Games are merely another educational method. As such, they must be connected to the learning outcomes.
- Games have much to offer through abstraction. Take a broad approach to the type of game to use. There is no need to focus solely on traditional wargames or games that have only a military focus.
- Investment in instructional staff is the key to success. The ADC must assist its instructors through development and guidance to be confident and effective at using new educational tools, such as wargames, to enhance the education of all students at the ADC.

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- Invest in broadening awareness of games for education. This is important in overcoming the stigma attached to wargames. Create an inclusive and accessible wargaming culture at the ADC that encourages people new to gaming to participate and learn.
- Develop a wargaming network in Australia and the international PME community. This connects with other educational institutions using games for education, for exchanging ideas, and for remaining current on andragogical research on games for adult education.

These principles manifest in five broad lines of effort for ADC.

**Line of Effort 1. Trial**

Commence a 12-month trial period for using games in formal curricula. PME programs across the ADF are primarily founded on traditional methods of education such as lecture and seminar-based work, with limited use of games to allow students to explore concepts and historical accounts presented to them. Wargames are not appropriate in every case to achieve learning objectives. However, learning management plans can be developed to involve practical learning applications, where appropriate, through wargames. Courses at the Australian Defence College span from ab initio training at the Australian Defence Force Academy to the education of senior officers at the Australian War College. As previously noted, further analysis of each course’s learning outcomes and wargaming is necessary to inform the decision to use wargames to enhance course learning outcomes.

ADC will also need to invest in instructor development and work with its contracted academic partners to develop the confidence and effectiveness of instructional and academic staff in the use of wargames to achieve learning outcomes. Another important consideration in the trial phase is to ensure that debriefing and reflection time for learners is built into the wargaming parts of the course. Periods of learner reflection...
and feedback with instructors and other students is essential to consolidate the experiential nature of wargaming and to help students understand how the game connects to learning objectives.  

**Line of Effort 2. Establish an ADC Wargaming Society**

Von Moltke established the Magdeburg Wargaming Club in 1828 when he was a lieutenant. The club served as a means for Prussian officers to play *Kriegsspiel* as part of their professional development outside of formal courses. In this spirit, and harnessing Blamey’s intention for wargaming to occur in officer’s messes, ADC will establish its own Wargaming Society. The society is intended to connect professional and recreational gamers within the framework of education. Recreational and professional wargamers can provide complementary perspectives on how to use wargames for education, as Sabin states, “The two groups are highly complementary, and between them contribute a great deal to modeling and understanding warfare as a whole.”

The society is intended to provide an avenue for professional interaction between students at all ADC residential courses, particularly at the Australian Defence Force Academy where recreational wargaming already occurs, and to provide an entry point for beginners. The Wargaming Society will also provide an experimental function that allows the members to identify games for play and advice about whether they think the game in question has a use within Australian PME. This trial and error method to finding appropriate games for education is part of Sabin’s approach:

> So where does my own educational employment of wargames during my 25 years as a war studies academic fit into this overall pattern? The story is essentially one of constant experimentation and in-

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53 Lewin, *War Games*, 44.
cremental growth, starting small and then building on whatever worked until wargaming became a crucial element within my overall teaching technique.55

The Wargaming Society can also serve an educational function by providing beginners with an open and welcoming environment to try wargaming outside of formal PME courses. Through this function, the Wargaming Society has an advocacy function by showing, through demonstrations and encouraging participation, the utility of games for education. Sabin emphasizes this practical approach: “The most effective way of persuading people of the value of wargames is through direct hands-on experience.”56

**Line of Effort 3. Sponsor for Educational Wargaming**

The Australian Army’s efforts to formally establish wargaming for training and education through Army Office Staff Instruction No. 17/84, “War Gaming in the Australian Army,” included the designation of an officer with the specific responsibility for wargaming. The staff instruction specified that the director general of army training was responsible for:57

- Coordination and development of policy;
- Wargames used to assist in the development of exercise plans;
- Training wargames; and
- Duties of the training requirements advisor for wargame training.

The appointment of a sponsor for wargaming in education is essential to ensuring that wargaming has an enduring connection to Australian JPME and the courses delivered by ADC. Although not formally established at the time of this writing,

57 See paragraphs 6–9 for “Responsibilities” in Army Office Staff Instruction No. 17/84, “War Gaming in the Australian Army.”
the most appropriate sponsor for wargaming in the ADF is the commander of the Australian Defence College, which is consistent with the commander’s appointment as defense’s education and training technical authority.

Line of Effort 4. Conduct a Defense Wargaming Seminar
As previously discussed, the Australian Army held a wargaming conference as part of that Service’s efforts to incorporate wargaming into its formal training and education system during the 1970s and 1980s. The conference provided a formal avenue to discuss wargaming and to confirm its use as a tool for army education and training. Similarly, the ADC should host regular wargaming seminars and conferences to achieve two primary goals: first, provide a forum for identifying and synchronizing the currently disparate wargaming efforts throughout the Australian Defence Organisation; and second, allow for an avenue for regular, open discussion about key topics that inform the use of games for education in the military and to introduce defense audiences to academic, corporate, and defense industry perspectives on games for adult education and the latest tools available to assist with PME. This dedicated, ADC-hosted wargaming seminar will complement the annual Connections Oz conferences that bring together recreational and professional wargamers to share knowledge and experience and that enhance the use of wargaming for various purposes including education. It should also serve as a repository for the conference proceedings to ensure that the insights and knowledge is preserved for future generations.

Line of Effort 5. Wargaming Network
There is a rich international network of wargaming societies and wargaming centers within the military forces and academia. The Georgetown University Wargaming Society, the U.S. Naval War College Wargaming Department, and the U.S. 

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Marine Corps University’s Brute Krulak Center for Innovation and Future Warfare are just a few of the international societies and centers that ADC should develop connections and partnerships with as it develops its own wargaming for education capability. ADC can engage with these organizations to learn from their experience and exchange ideas, including future competitions between students and fellowships, as the ADF develops its expertise in the use of wargames for education.

CONCLUSION

The more people who are directly exposed to serious but accessible games, the less pervasive will be their image as trivial and childish diversions or impossibly complex and time-consuming pastimes for obsessive nerds. Playing wargames more widely offers the best chance of inspiring more use of this currently neglected approach to the study and understanding of war.

~ Philip Sabin

Strategic competition and warfare are human endeavors that are inherently uncertain, dynamic, and demand the best of human cognitive and physical performance. The difficulty is that the interplay between individuals, organizations, and nations in this environment is unforgiving and there are no opportunities to reset decisions made in this context. There is only one opportunity to make a relatively good decision in this challenging, high-pressure context. Wargames offer military personnel the opportunity to work in a safe-to-fail environment to practice decision making in a competitive context. Further, wargames offer military learners with the ability to interact with history, playing the role of commanders in battles long past, and ex-

perience first-hand through the wargaming model some of the challenges faced by the commander in that context.

The use of games as part of PME also enhances the learning experience of students by providing them with a practical, discovery learning approach to understanding the course material. However, the use of wargames needs significant investment in time and resources. Most importantly, the key to success for the use of wargames is in obtaining instructor buy-in and developing the expertise in instructional staff so they are confident and effective in using wargames in PME programs.

The history of wargaming in the ADF is short, primarily focused on the efforts of the Australian Army in the 1970s and 1980s. However, efforts in the ADF have led to a much greater emphasis on computer simulation for collective training, with the use of wargaming for education diminishing over time. The Australian Defence College is focused on reinvigorating wargaming as an educational tool as part of the Joint PME courses offered at the college. The efforts to reintroduce wargaming into PME will require significant effort in the coming years through the incorporation of wargaming into the JPME system, with a key focus on instructor development, to ensure that the use of games is normalized and enduring.

The ADF cannot afford to enter another period of amnesia about wargaming. Phil Klay stated that “Joining the military is an act of faith in one’s country—an act of faith that the country will use your life well.”\(^6\) The formal incorporation of wargaming into PME will allow ADF leaders to develop the strategic thinking, innovative and creative approaches to problem solving, that will enhance their ability to make sound strategic decisions that will ensure that Australian lives and resources are used well in the national interest.

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