

## **National Mobilization and Relevance for Defense Education Strategy**

**Syarif Hidayatullah<sup>1</sup>, Toni<sup>1</sup>, Joni Widjayanto<sup>1</sup>, Ignatius Eko Djoko Purwanto<sup>2</sup>,  
Guntur Eko Saputro<sup>1</sup>**

<sup>1</sup>Universitas Pertahanan, West Java, Indonesia, <sup>2</sup>Ministry of Defense Research and Development Agency, Jakarta, Indonesia

Corresponding author e-mail: [syarifnunky@gmail.com](mailto:syarifnunky@gmail.com)

Article History: Received on 12 May 2025, Revised on 11 June 2025,  
Published on 23 June 2025

**Abstract:** This study aims to examine the relevance of the concept of total war and national resource mobilization during World War II in the development of modern defense education in Indonesia. The research approach used is descriptive qualitative with historical-contextual analysis methods. Data were obtained through literature studies of primary and secondary sources, including historical documents, academic books, international journals, and lecture materials from defense institutions. The results of the study indicate that the principles of total war, such as total mobilization, industrial conversion, and the formation of collective consciousness, can be used as a strategic learning framework in the defense education system. The novelty of this study lies in the integration of historical analysis of war with a contextual pedagogical approach that is adaptive to contemporary challenges. The main contribution of this article is to offer a conceptual model of history based defense learning that strengthens national deterrence through value education, strategic reflection, and strengthening leadership character. These findings are expected to enrich academic discourse and defense curriculum practices in developing countries.

**Keywords:** Defense Education, Historical Strategy, National Mobilization, National Resilience, Total War

### **A. Introduction**

World War II was one of the most profound and defining events in human history. The period 1939–1945 not only recorded massive bloodshed, but also gave birth to a new concept in modern warfare strategy, namely total war. This concept marked a fundamental change in the way countries mobilized national resources, whether human, industrial, technological, or ideological for the sake of war. War was no longer limited to the battlefield and armed forces, but reached all elements of civil society and state structures (Chickering, R., & Forster, 2003). In the European context, countries such as Germany, England, and the Soviet Union showed how the full mobilization of national resources could drastically change social, economic, and political structures (Tooze, 2007). Massive mobilization of labor, the conversion of

civilian industries into military industries, and control of logistics and media were the main characteristics of the total war approach. Over time, this strategy has been reviewed by various military academies and defense institutions as a foundation for building national defense readiness in facing contemporary threats (Weinberg, 2013). Total war is a form of confrontation that involves all aspects of national life where the entire nation is involved, and all resources are mobilized to achieve strategic victory (M. Harrison, 2017). Within this framework, war history education becomes not only academically relevant, but also strategic to build national deterrence in peacetime. Therefore, an understanding of total war is essential to enrich a modern and comprehensive defense education approach.

Although the concepts of total war and national resource mobilization have been widely discussed in the context of military history, there is still a gap in the academic literature on how these historical experiences are directly integrated into modern strategic and defense education curricula, especially in developing countries such as Indonesia. Previous studies generally highlight the logistical aspects, combat capacity, and political dynamics of World War II, but not many have reviewed their direct implications for learning patterns in contemporary defense institutions (Murray, 2011) (Daddis, 2011). A deep understanding of the relationship between the experience of total war and the development of defense education in the 21st century is still fragmented. This includes fundamental questions about how the principles of resource mobilization, national leadership, and management of social systems during war can be used as applicable and relevant learning models to face today's unconventional threats. There is no comprehensive conceptual framework that connects past practices with the need for transformation of the national defense curriculum based on strategic values derived from the history of war (Hocking, 2016). This gap becomes increasingly important amidst the increasing complexity of hybrid, asymmetric, and multidimensional threats that require not only technical, but also historical strategic understanding. Therefore, this research attempts to bridge this gap by systematically analyzing the lessons of World War II as a foundation for strategic learning in defense education.

The study of World War II has produced thousands of publications, from military, political, and social perspectives. However, recent developments in the field of strategic defense education and military learning indicate a shift in attention from conventional battle narratives to the meaning of war as a source of strategic learning. Studies such as those conducted by Murray and Sinnreich (Murray, 2011) and (Gray, 2010) underline the importance of an interdisciplinary approach in understanding the long-term impact of war on military education institutions. However, most of these studies still focus on large countries such as the United States, the United Kingdom, or Russia, so their application to the context of developing countries has not been widely explored. Research in the domain of strategic pedagogy has also developed, especially in connecting major historical events such as World War II with contemporary defense capacity building. Several military academies around the

world have adopted a history-based approach as part of their command and strategy training curriculum, but this approach is still theoretical and lacks integration with contextual learning based on local values. In Indonesia, although institutions such as the Indonesian Defense University have included war history in their curriculum, academic literature that bridges World War II with the strategic needs of national defense education is still very limited. Therefore, this article is expected to enrich the state of the art by adding a developing country perspective in strategic learning based on the history of total war.

The novelty of this study lies in its approach that integrates the concept of total war and national resource mobilization during World War II as a strategic learning model in modern defense. While most literature on World War II focuses on military strategy, political victory, or post war social impacts (M. (Ed. . Harrison, 2000), this study emphasizes the educational value of total war dynamics in shaping strategic mindsets, national mobilization systems, and contemporary leadership in the defense sector. This perspective is relatively underexplored, especially in the context of Southeast Asian nations with evolving defense education infrastructures. Furthermore, this research contributes to the field by proposing a cross-disciplinary framework that combines war historiography, the philosophy of history, and strategic pedagogy. By contextualizing empirical cases from World War II, the study offers insights into how historical narratives can serve as educational tools for developing adaptive and contextually relevant defense strategies. This approach aligns with recent discussions on the importance of integrating historical experiences into defense education to enhance strategic thinking and national preparedness (Karlin, 2024). In addition, the study provides practical implications for the development of defense education curricula in Indonesia. By linking the principles of total war and national mobilization to contemporary defense education models, the research offers a conceptual framework that can inform curriculum design at military academies and civil defense institutions. This aligns with the need for educational strategies that not only convey historical knowledge but also foster strategic reasoning and resilience among defense personnel (Erin Richter and Howard Wang, 2025). In other words, this article contributes a new understanding that past experiences are not only to be remembered, but to be studied systematically in facing future strategic challenges (Strachan, 2013).

This article provides a substantive contribution to the development of defense science, particularly in the realm of military and national strategy education, by utilizing the study of World War II history as a reflective and educational foundation. In this framework, the main contribution lies in the preparation of a conceptual framework that connects the concept of total war and national resource mobilization with the contemporary defense education model, which has not been explicitly developed in Indonesian academic literature. In addition, this article expands the scope of war history studies into the context of strategic learning with a cross disciplinary approach that combines military historiography, strategic leadership theory, and defense education approaches. The analytical model offered can be a reference in the

formation of national defense education curricula, both at the university level, military education institutions, and strategic policy training programs in civil defense institutions. Another practical contribution is in providing applicable recommendations for military education policy designers so that history is not only a memorization material, but also an instrument for forming strategic reasoning and strengthening national preparedness (Moettaqaliman et al., 2025); (Ayu et al., 2022).

Based on the description above, this article is specifically directed to answer the research question, namely: How did the concept of total war and mobilization of national resources during World War II contribute to the development of strategic education in the modern national defense system, especially in the context of developing countries such as Indonesia? This question reflects an effort to bridge the historical understanding of total war strategy with contemporary applications in defense education. The focus of this research is not only analyzing past practices, but also exploring their relevance in forming a strategic thinking framework and adaptive learning patterns in facing current geopolitical and national security challenges. By raising a case study of World War II, this research question leads to the formulation of a conceptual model of defense strategy learning based on war history, which is still a gap in the defense education literature of Indonesia and other developing countries (Moettaqaliman et al., 2025); (Karlin, 2024).

## **B. Methods**

This study employs a qualitative historical descriptive approach, focusing on the interpretation of past events to derive strategic lessons relevant to modern national defense education. The approach is suitable for analyzing how the concept of total war and the mobilization of national resources during World War II can inform contemporary educational frameworks in strategic military institutions, particularly in developing countries such as Indonesia. Similar methods have been adopted in the study of Singapore's first generation military build-up, emphasizing the historical basis of national defense development (Wirawan H. Wicaksono, 2022).

Data collection was conducted through a comprehensive literature review, which included:

1. Primary historical documents and war archives
2. Government publications on national defense education policies
3. Books and peer-reviewed articles published between 2000 and 2024
4. Official lecture materials and curriculum resources from the Indonesian Defense University related to World War history and military strategy.

No direct respondents or field interviews were involved in this research. However, educational materials and official teaching content used in the War History course at the Indonesian Defense University were utilized as contextual data to understand how history is integrated into academic curriculum and national strategic thinking.

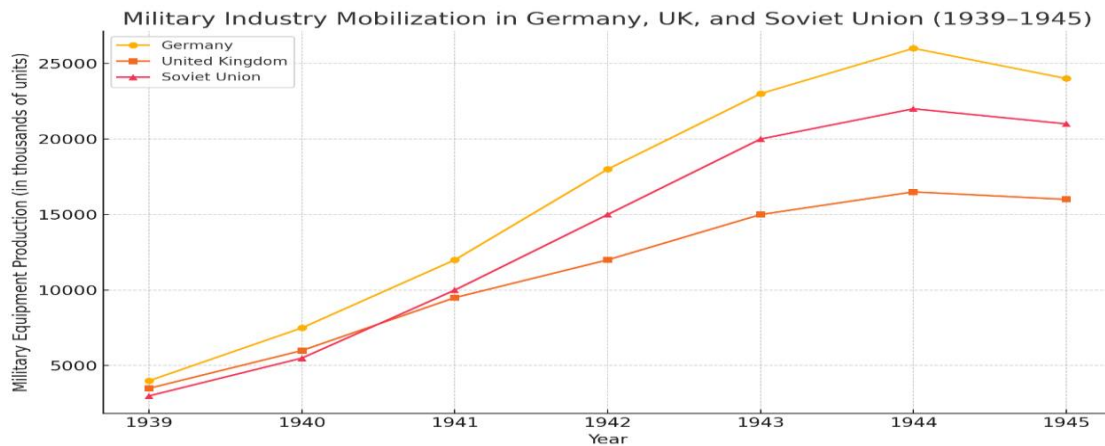
The research setting was centered in Jakarta, Indonesia, drawing on academic libraries, institutional archives, and defense education repositories. For data analysis, the study applied thematic content analysis, interpreting historical events and connecting them to educational concepts in strategic learning. This analytical approach is grounded in historiography and strategic pedagogy, ensuring that historical cases are not only narrated but also examined for their instructional implications. This method enables the extraction of core educational values from wartime practices and their transformation into strategic models that are applicable to national defense curriculum development. This process aligns with recent research advocating the use of historical military knowledge to improve leadership formation and institutional readiness in national defense education (Midhio & Priyono, 2019).

### **C. Results and Discussion**

#### *The Concept of Total War and Its Implementation in Europe (1939–1945)*

The concept of total war in World War II marked a major paradigm shift in how countries utilized their full national potential to achieve military victory. Not only limited to the battlefield, total war included the full mobilization of human, industrial, economic, social, and ideological resources. Countries such as Germany, Britain, and the Soviet Union adopted this strategy systematically by remodeling their economic systems into military production machines (Overy, 2024); (Tooze, 2007). The data in Figure 1 shows how Germany's defense equipment production capacity increased from 4,000 units in 1939 to more than 26,000 units at its peak in 1944. Britain and the Soviet Union followed a similar pattern with a significant surge in military production, indicating a total conversion of civilian industry to military. This confirms that World War II was a war that integrated all sectors of life into the state command structure for a single purpose, military victory (Chickering, R., & Forster, 2003).

In practice, the implementation of total war in Europe included the following elements: mobilization of civilian and military labor, nationalization and conversion of industry, control of the media and public opinion, and the use of propaganda to increase people's moral support. Germany, for example, formed the Ministry of Armaments and War Production led by Albert Speer, which significantly increased production efficiency despite the pressure of Allied attacks (Tooze, 2007). The concept of total war also erased the boundaries between civilians and combatants. In cities such as London, Dresden, and Stalingrad, civilians became part of the defense system, either as industrial workers, civil defense volunteers, or targets of enemy aerial bombing strategies (Overy & Baker, 2013). Thus, World War II became a classic example of a war involving the entire nation (nation in arms) on a global scale.



**Figure 1. Production Capacity of German, British, and Soviet Defense Equipment**

**Table 1. Military Industrial Mobilization Data (German, British, Soviet) during World War II (1939-1945)**

Year	Germany (unit)	English (unit)	Soviet (unit)
1939	4,000	3,500	3,000
1940	7,500	6,000	5,500
1941	12,000	9,500	10,000
1942	18,000	12,000	15,000
1943	23,000	15,000	20,000
1944	26,000	16,500	22,000
1945	24,000	16,000	21,000

*National Resource Mobilization as a Pillar of Strategic Resilience*

The mobilization of national resources in World War II became the main foundation of total defense power. In the modern era, this approach is not only considered as an instrument of conventional warfare, but also as a basis for forming a strong and resilient defense system. During World War II, major countries developed mechanisms for the allocation and use of national resources in an integrated manner, involving government, industry, civil society, and financial institutions which ultimately strengthened long term resilience to enemy pressure (Millett et al., 1986). This concept is now relevant in building national strategic resilience that is able to face contemporary threats such as hybrid warfare, disinformation, cyber attacks, and geoeconomic pressure. Mobilization principles such as industrial conversion, logistics priority setting, and energy resource control have been widely adopted in the defense policies of various countries, including Indonesia through the concept of Total National Defense (Ministry of Defense Republic of Indonesia, 2015).

A study by Paul Cornish and Andrew Dorman, emphasizes that successful national mobilization depends on continuity between civil and military policies. Without integration between sectors, the defense system will be vulnerable to logistical dysfunction, demoralization, and reduced combat capacity (Cornish & Dorman, 2011). In the UK, the War Economy Board is an example of how the civilian sector was

directed to directly support military operations. In the Soviet Union, mobilization included the relocation of industry to safe areas such as the Urals to maintain the continuity of defense equipment production (M. (Ed. . Harrison, 2000). The lessons from these large mobilizations show that military success is not only determined by firepower, but by the effectiveness of national management. In the context of modern defense, this strengthens the position of mobilization as a vital element of national defense strategy, not only as combat readiness, but also as a comprehensive resilience system that is measurable, adaptive, and organized.

#### *Socio Political Transformation and Educational Lessons from Total War*

World War II was not only a global military conflict, but also an agent of profound social and political transformation in the countries involved. In the context of Europe and the Soviet Union, the concept of total war created a significant shift in the structure of society. Women entered the arms industry, children were involved in state propaganda, and social structures were consolidated in the spirit of collectivism and national sacrifice (Summerfield, 1998). This phenomenon made total war not just a military strategy, but also a medium for massive social and ideological education. In modern defense education studies, this inspired a new approach that collective experience in times of crisis can be an effective educational tool. For example, the values of solidarity, discipline, adaptability, and loyalty to the country are part of strategic soft skills that are not taught through theory alone, but are learned through historical narratives and critical reflection on past events (Kirk, 2012). Therefore, war history education is not only the transmission of facts, but also the internalization of strategic values.

In addition, the post World War II political transformation including the establishment of the United Nations, the Bretton Woods agreement, and the Universal Declaration of Human Rights are part of the important lessons on how the world learns from the destruction of war to build a more stable global system (Mazower, 2012). The educational implication is to instill geopolitical awareness in defense education, so that future generations are not only tactically prepared, but also understand the roots of conflict, diplomacy, and collective security systems. Thus, the lessons of World War II are not only about battle tactics, but about strategic education through history, which strengthens character, broadens geopolitical horizons, and instills a national ethos amidst increasingly complex global threats.

#### *Implications of Total War on Defense Education in Indonesia.*

The implications of total war on defense education are profoundly important for Indonesia, particularly in light of historical experiences from World War II. The total war strategy emphasizes the role of national resources and collective mobilization of society in enhancing defense capabilities. This perspective is crucial for Indonesia, as it seeks to modernize its defense education system while fostering a deep-seated

awareness of national resilience among its citizens. The experience of total war underlines the necessity of integrating a multifaceted approach to defense education that encompasses various dimensions, including civic responsibility, national identity, and the principles of Pancasila, the state ideology of Indonesia. This integration can enhance the country's preparedness against both contemporary threats and the enduring challenges arising from global dynamics.

Several educational institutions, such as the Republic of Indonesia Defense University, Lemhannas RI, and the Ministry of Defense Education and Training Center, have begun to align their curricula with strategic insights derived from historical experiences. For instance, the curriculum focuses on instilling an understanding of national mobilization and resilience, effectively creating a generation capable of navigating the complexities of modern warfare and geopolitical challenges (Azkiya et al., 2023); (Azizah, 2022).

Moreover, invoking the total war experience extends beyond historical analysis and demands the fostering of a robust civic education framework that cultivates nationalism and love for the homeland among youth. This relevance of citizenship education as a pillar of national defense has been emphasized, promoting an ethical commitment to civic duties that enhance national security (Ali, 2022); (Dahliyana et al., 2024). The integration of these values into the educational curriculum is vital for developing responsible citizens who are not only aware of national interests but are also committed to their defense (Yunita & Nastiti Mufidah, 2022). This serves the dual purpose of rebuilding national unity and fostering a resilient society equipped to tackle both external threats and internal divisive forces.



**Figure 2. Integrating Lessons from Total War into Modern Defense Education**

Recent research indicates that contextual-based history learning significantly enhances students' capability to understand strategic conflict dimensions and analyze

potential multidimensional threats (Hughes et al., 2023). Moreover, strategic studies emphasize the critical role of integrating historical values into defense curricula, fostering graduates who are adaptive, resilient, and possess a collective awareness regarding their roles in sovereignty maintenance (Hughes et al., 2023). However, a notable challenge in Indonesia's defense education development remains the scarcity of comprehensive modules that link historical perspectives effectively with contemporary strategic analyses. Hence, this study advocates a curriculum transformation to become analytical, reflective, and aligned with broader frameworks of national resilience, thus reinforcing the interplay between historical insights, public policy formulation, and globally responsive military strategies (Hughes et al., 2023).

An important lesson from total war is that all elements of the nation can be prepared to become strategic reserve components, not only through military training, but also through learning that internalizes national values, collective strategies, and the role of individuals in the defense system. Modern defense education in Indonesia needs to adopt this integrative and value based approach in order to be able to form a generation of strong and strategic leaders.

#### **D. Conclusions**

This study concludes that the concept of total war and the comprehensive mobilization of national resources during World War II provide a strategic and educational basis that is highly relevant for the development of modern defense education, especially in developing countries like Indonesia. Historical experience in organizing all elements of society both military forces, civilian populations, industrial sectors, ideological narratives, and government structures into a common strategic goal shows a multidimensional framework in building national resilience. Reflections on the success of countries during wartime in integrating economic, human, and technological resources confirm that defense readiness depends not only on the power of weapons, but also on social cohesion, strategic awareness, and collective adaptability. These findings are important in facing contemporary challenges such as cyber threats, hybrid warfare, and geoeconomic crises that require more than just tactical responses. Integrating the principles of total war into defense education enriches leadership learning, strategic thinking, and value based decision-making. Institutions such as the Indonesian Defense University and the Indonesian National Defense Institute are strategically positioned to utilize this historical learning in strengthening the curriculum, not only focusing on combat tactics, but also on character building, national responsibility, and awareness of the role of individuals in the defense system. By making total war a case study of education, there is a continuity of understanding across generations that strengthens the nation's strategic culture. Thus, historical experience is not just a legacy, but a dynamic source of learning to produce future defense leaders who are reflective, resilient, and adaptive in facing the complexity of global threats. This approach is a strategic necessity in building an integrated and sustainable national defense education system.

## E. Acknowledgement

The authors would like to thank all parties and especially the lecturers of the Universitas Pertahanan for their support in compiling this article. Hopefully this article provides benefits and we are open to suggestions for improvement in writing this article.

## References

- Ali, Y. F. (2022). Strengthening nationalism and love of homeland in the global era through citizenship education as national defense education. *Jurnal Civics: Media Kajian Kewarganegaraan*, 19(2), 255–261. <https://doi.org/10.21831/jc.v19i2.53371>
- Ayu, D., Wahyuni, D., Wijaya, S., Ritiau, J. D., & Midhio, I. W. (2022). *Diponegoro War (1825-1830) In the Perspective of Total War Strategy*. VI(V), 314–318.
- Azizah, N. A. (2022). The Role of Teachers in State Defense Efforts. *QISTINA: Jurnal Multidisiplin Indonesia*, 1(1), 10–12. <https://doi.org/10.57235/qistina.v1i1.17>
- Azkiya, N., Jonni Mahroza, Agung Risdhianto, & Hikmat Zakky Almubaroq. (2023). Strengthening the Awareness of State Defense of the Millennial Generation Through Defense Management Against Economic Threats After the Covid-19 Pandemic. *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 3(2), 731–738. <https://doi.org/10.55227/ijhess.v3i2.629>
- Chickering, R., & Forster, S. (Eds. . (2003). *The shadows of total war: Europe, East Asia, and the United States, 1919-1939*. Cambridge University Press.
- Cornish, P., & Dorman, A. M. (2011). Dr Fox and the Philosopher's Stone: the alchemy of national defence in the age of austerity. *International Affairs*, 87(2), 335–353. <https://doi.org/10.1111/j.1468-2346.2011.00976.x>
- Daddis, G. A. (2011). No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War. *No Sure Victory: Measuring U.S. Army Effectiveness and Progress in the Vietnam War*, 1–368. <https://doi.org/10.1093/acprof:oso/9780199746873.001.0001>
- Dahliyana, A., Budimansyah, D., Nurdin, E. S., Suryadi, A., & Cahyati, S. (2024). Project citizen digital: Civic education strengthen the national defense character? *Kasetsart Journal of Social Sciences*, 45(1), 159–166. <https://doi.org/10.34044/j.kjss.2024.45.1.17>
- Erin Richter and Howard Wang. (2025). *China's Transition to a War-Oriented National Defense Mobilization System*. the People's Liberation Army Conference.
- Gray, C. S. (2010). *The strategy bridge: theory for practice*. Oxford University Press.
- Harrison, M. (2017). Resource mobilization for World War II: The USA, UK, USSR, and Germany, 1938–1945. *The Second World War, April 1987*, 249–270. <https://doi.org/10.4324/9781351126625-10>
- Harrison, M. (Ed. . (2000). *The economics of World War II: six great powers in international comparison*. Cambridge University Press.
- Hocking, B. (Ed. . (2016). *Foreign ministries: change and adaptation*. Springer.

- Hughes, J., Kornberger, M., MacKay, B., O'Brien, P., & Reddy, S. (2023). Organizational strategy and its implications for strategic studies: A review essay. *Journal of Strategic Studies*, 46(2), 427–450. <https://doi.org/10.1080/01402390.2021.1994950>
- Karlin, M. (2024). The Return of Total War: Understanding-and Preparing for-a New Era of Comprehensive Conflict. *Foreign Aff.*, 103, 8.
- Kirk, P. D. (2012). Physical Education Futures: Can we reform physical education in the early 21st Century?1. *Ejournal de La Recherche Sur l'intervention En Éducation Physique et Sport -EJRIEPS*, 27, 0–10. <https://doi.org/10.4000/ejrieps.3222>
- Mazower, M. (2012). *Timothy Snyder's Bloodlands*. *Contemporary European History*. 21(2), 117-123. [https://doi.org/DOI: https://doi.org/10.1017/S0960777312000057](https://doi.org/DOI:https://doi.org/10.1017/S0960777312000057)
- Midhio, I. W., & Priyono, J. (2019). Education and Research As Components of Indonesia Defense Diplomacy. *Jurnal Pertahanan*, 5(1), 61. <https://doi.org/10.33172/jp.v5i1.487>
- Millett, A. R., Murray, W., & Watman, K. H. (1986). The Effectiveness of Military Organizations. *International Security*, 11(1), 37. <https://doi.org/10.2307/2538875>
- Ministry of Defense Republic of Indonesia. (2015). *Buku Putih Pertahanan Indonesia 2015*.
- Moettaqaliman, M., Risman, H., & Timur, F. G. C. (2025). *Implementation of Total War Strategy in Indonesia ' s Space Diplomacy : Exerting the ASEAN Outlook on Indo-Pacific to Navigate the Region ' s Astropolitics*. 4(2), 361–380.
- Murray, W. (2011). *Military adaptation in war: with fear of change*. Cambridge University Press.
- Overy, R. (2024). *Why the Allies Won* (WW Norton & Company (ed.)).
- Overy, R., & Baker, P. (2013). *Literature*. 1945–1948.
- Strachan, H. (2013). *The direction of war: contemporary strategy in historical perspective*. Cambridge University Press.
- Summerfield, P. (1998). *Reconstructing women's wartime lives: discourse and subjectivity in oral histories of the Second World War*. Manchester University Press.
- Tooze, A. (2007). the Wages of Destruction: the Making and Breaking of the Nazi Economy/Adam Tooze. *Scientia Militaria - South African Journal of Military Studies*, 800 + xxvii pages. <https://doi.org/10.5787/39-1-107>
- Weinberg, G. L. (2013). *A world at arms: A global history of World War II*. Cambridge University Press.
- Wirawan H. Wicaksono, R. A. (2022). *Costly-Defense Systems Versus Productive Investments: The Case Of Singapore's 1st Generation Military Build-Up (THE 1960s-1980s)*. 8. No. 3 p(August), 356–364. <http://jurnal.idu.ac.id/index.php/DefenseJournal>
- Yunita, Y., & Nastiti Mufidah. (2022). National Defense Education as Students Character Education. *International Journal of Education and Humanities*, 2(4), 147–156. <https://doi.org/10.58557/ijeh.v2i4.124>