

We Are Enough

A response to “Are You Enough?” Perspectives on the value of education from the Expeditionary Warfare School Class of Academic Year 2020

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An article published in *War on the Rocks* by LTG David W. Barno, USA(Ret) and Dr. Nora Bensahel in September 2018 posed a pointed question to the professional military education (PME) class of 2019: Are you enough?¹ The message in this article deliberately attacked the adage that PME is an opportunity to metaphorically catch your breath and take a knee before returning to the fleet. In fact, the authors noted the absence of operational responsibility provides a unique opportunity to advance the collective education of the force and intellectually address developmental initiatives necessary to maintain the Nation’s high state of readiness amidst developing threats. LTG Barno and Dr. Bensahel emphasize that, in an era of ever-shrinking technological advantages between the United States and its adversaries, *being enough* increases the responsibility of students to create more valuable academic contributions to maintain an asymmetric advantage in a future conflict. The recently released *Education for Seapower Strategy 2020 (E4S 2020)* notes that decisive competitive advantage can be achieved by “providing naval forces with an intellectual overmatch against [the United States’] adversaries.”² As emphasized in *E4S 2020*, failing to address how cross-organization educational perspectives and increased collaboration opportunities support intellectual overmatch will create an impasse that U.S. adversaries can easily exploit. Education is an integral component to maintaining a competitive advantage in the future operating environment (FOE), and it is the responsibility of every service member in the United States military

>The authors are all students from Conference Group 1 at the Expeditionary Warfare School. Find the original War on the Rocks article that prompted their response here: <https://warontherocks.com/2018/09/are-you-enough-our-speech-to-the-pme-class-of-2019/>.

to reinvigorate a sense of purpose in academic rigor—or the United States faces defeat by its competitors.

Being enough requires United States service members to be open-minded, agile, and strategic. Modern applications of teaming networks, expanded research collaboration opportunities within the Naval University System (NUS), and increased perspective-broadening opportunities can support future educational opportunities and form the cornerstones of PME. The intellectual development supported by these combined lines of effort are critical to sharpening the minds of leadership at all levels and is an indispensable practice that enables maneuver warfare. In this response to LTG Barno and Dr. Bensahel’s *War on the Rocks* article, students from the Expeditionary Warfare School (EWS) class of academic year 2020 (AY20) will evaluate lessons learned regarding open-mindedness, agility, and strategic competence to demonstrate how they set conditions for U.S. forces to have an asymmetric advantage in a future contested environment.

Are You Open-Minded Enough?

LTG Barno and Dr. Bensahel note an interesting phenomenon when exploring the creativity of students enrolled in PME: students with a track record of past successes are *less likely* to embrace open-mindedness. In 1997, Gen Alfred M. Gray highlighted the risks associated

with a lack of open-mindedness within the profession of arms, identifying that like war itself, the United States’ approach to warfighting must evolve. If we cease to refine, expand, and improve our profession, we risk being outdated, stagnant, and defeated.³

These powerful words are echoed in Gen David H. Berger’s 2019 planning guidance, which charges Marines to cultivate a culture of thinking and doing. One need only look to history to discover the importance of how open-mindedness spawns creativity in problem solving. Field Marshal Viscount Slim’s success during the Burma Campaigns of World War II demonstrates that an open-mindedness to organizational differences in problem solving is afforded by increased engagement with allies and partners. Field Marshal Slim’s reliance on subject matter experts from different nations and professions was pivotal in solving complex supply and logistics issues that led to the 14th Army’s victory over Japanese forces.⁴ Modern applications of open-mindedness must embrace today’s digital technology and utilize instantly accessible platforms understood by the current generation of warfighters.

An adaptation of Field Marshal Slim’s strategy in the contemporary could be an online joint crowdsourcing application. An online joint crowdsourcing application is currently gapped in the naval force, but if implemented will increase

collaboration and exposure to joint ideas enhancing the open-mindedness of the naval force. A future data collection application conceptualized during the academic year, Joint Online Teaming (JOLT), is the equivalent of an online crowdsourcing application supporting the naval force.⁵ Joint crowdsourcing afforded by the collective engagement of cross-Service and cross-functional area perspectives is critical to refining, expanding, and improving the profession of arms across the MAGTF. An integrated and innovative digital medium for information sharing, like JOLT, can enhance the perceptual acuity of the naval force, increase its ability to make more timely and informed decisions, and facilitate realtime problem solving. Within the fleet, crowdsourcing can support an integrated naval force structure by engaging service members of all ranks to contribute ideas that enable growth across the naval force.⁶ Within the NUS, JOLT would serve as a means to increase the impact of student research by enabling students to make more valuable contributions to fleet requirements. Collaboration opportunities in JOLT could be scaled to increase engagement with allies and partners as directed in the *38th Commandant's Planning Guidance and A Design for Maintaining Maritime Superiority (Version 2.0)*. While all levels will initiate and develop ideas, the best contributions will stand out through a voting process that validates user submissions through experienced individuals who are entrusted with moderation of information flow. Existing relationships between the LtGen Victor "Brute" Krulak Center for Innovation and Creativity, the Marine Corps Warfighting Laboratory, and the NUS can support the development of this joint platform. The implementation of a secure and accessible platform like JOLT is low risk to the force, increases the intellectual capacity of the naval force, and should be promoted by leaders at all levels.

A 2019 lecture by the Center for Strategic and Budgetary Assessments highlighted the United States' integrated support networks between academia, industry professionals, and partnered nations as the most significant

advantage in its long-term competitions—noting that integrated support networks are critical to creating and maintaining flexible strategies supporting the FOE.⁷ The naval force's willingness to collectively engage and source the intellectual capacity of its members enhances its ability to shrink intellectual gaps between the United States and its adversaries. Former Google CEO Erich Schmidt contends the current collaboration between the United States Government, academia, and industry professionals is insufficient to maintain a competitive advantage.⁸ Open-mindedness afforded by JOLT can present options to accelerate needed capabilities on shorter timelines and in ways that create uncertainty for its adversaries through the emergence of ideas that may deviate from the United States military's predictable doctrine.

New opportunities for human interaction within the diverse student and faculty population of EWS AY20 provided an analog micro-version of JOLT. These interactions demonstrated that students are *more likely* to embrace open-mindedness if presented with collaboration opportunities and joint ideas. The experiences and backgrounds of—226 EWS students, representing 32 PMOSs, 4 Services, and 24 nations—

increased open-mindedness to unique perspectives, strengthened academic discussions, and enhanced creativity in solving complex problems. Professional relationships that enhance perspective, like those established at EWS, create value that far outlives the Service's investment of ten months in the academic year. JOLT will enable even more relationships to expand and persist in the naval force to refine, expand, and improve the profession of arms.

Are You Adaptable Enough?

In "Are you Enough?," LTG Barno and Dr. Bensahel highlight adaptability as the most important characteristic necessary for the future force to respond to the unexpected. Adaptability exudes reaction and is high risk to the force given the anticipated lethality, speed, and complexity of a future conflict. Gen Berger calls for an increased emphasis on *agility* in *Force Design 2030* to combat the risks of incremental adaptations by developing intellectual and technical skills necessary to support the speed of operations in the FOE.⁹ As the United States' response time to adversarial threats diminishes, the value of Service investments in impactful student research at academic institutions increases. Rather than



EWS students during AY20 conduct the Marine Corps Planning Process exam in which students plan operations from the perspective of multiple elements and enablers of the MAGTF.
(Photo by DeAndre Bradley, EWS, 30 September 2019.)

asking future academic years if they are *adaptable enough*, the question that should be asked is: Are your academic contributions to the institution *valuable enough*?

To increase the value of student contributions at PME institutions, students must question their preconceived notions of warfighting by increasing perspective building collaboration opportunities. An increased emphasis on transferable perspectives afforded by peer engagement and joint participation in academic settings can be strengthened by creating a future Naval Education Cross Teaming (NEXT) initiative that supports academic collaboration across the NUS.¹⁰ NEXT will: 1) consist of a consolidated depository of completed student papers, 2) highlight projects that are ongoing where collaboration is desired to enable students within the NUS to collaborate on research enabling the completion of capstone formal academic requirements, 3) include an annual innovation symposium with representation from all schools within the NUS, 4) include formal guided research topics originating from current Service leadership to maximize student focus on issues the naval force is facing, and 5) consist of greater faculty exchange through cross-school electives offered in person during the academic year. A future initiative like NEXT supports all three lines of effort in the *E4S 2020* strategy by enhancing partnerships through education, integrating education into talent management frameworks, and maximizing the shared use of staff and facilities across the Naval University System.

Efficiencies created by a consolidated depository of completed NUS student papers in the NEXT digital environment increases the recurring value of Service investments in student research. Organizing archived research papers into a user-friendly database can increase the value of student research by mitigating unintentional duplicative efforts in separate organizations and in subsequent academic years and capitalize on hard earned research shaped by student experience in conflicts throughout history. *The Path to Greater Naval Integration*, a Navy and Marine Corps

joint memorandum signed in May 2019, emphasizes the importance of integrating Service education capabilities and increasing joint networking “to improve the theoretical limits of combat power.”¹¹ Changes in the operational focus of the force combined with challenges posed by adversary technological and operational advancements demonstrate that future education strategies must streamline access to existing archived research resources to improve the recurring value of Service investments in education. The holistic perspective of schools and faculty throughout unique historical challenges has yielded an immense amount of student research critical to enhancing future operations. However, access to archived student research across the NUS is a strength that is not currently exploited to its full potential by the naval force.

Within the hierarchy of Marine Corps University (MCU), research papers from students attending Marine Corps schools date back to 1934. Student research papers pre-2001 currently exist within the Marine Corps History Division Archives Branch as manually searchable digitized PDFs. Post-2001 student research papers are managed by the Marine Corps Research Library and include graduate thesis submissions from the Command and Staff College, School of Advanced Warfighting, and the Marine Corps War College. Papers from students attending EWS, from students not completing a master’s of military studies or master’s of operational studies degree, and papers marked for official use only are typically not included in the archives of student papers. This gap of student research accounts for more than 200 student submissions per year not included in searchable material archives. MCU began a transition to a Ex Libris Alma library management software system in May 2019, which will allow authorized users to search the online catalog of archived student papers back to 2001. Limiting searchable access to pre-2001 student research fails to capitalize on hard earned experience shaped by student involvement in historical conflicts to include World War I, World War II’s Pacific campaigns, Vietnam, and DESERT STORM.

Streamlining access to research already conducted within the NUS enhances the value of the Naval Service’s investments in education and creates operational advantages in how the force *continues* research necessary to solve complex problems. This can be accomplished by 1) consolidating all available MCU research papers dating back to 1934 to include capstone academic research papers from EWS, from non-degree producing academic requirements, and papers marked for official use only in the Alma library management software, 2) standardizing the organization of archived papers by adding keywords with controlled vocabulary to increase searchable content and maximize support to future research, and 3) granting CAC-enabled users access to for official use only papers in the Alma library management system.

NEXT should highlight projects that are ongoing where collaboration is desired to enable students from all schools within the NUS to collaborate on research, enabling the completion of capstone formal academic requirements. The harmonious integration of intellectual capacity supported by collaborative research best supports the achievement of rapid, complex solutions. Future force design challenges the naval force to combine resources into systems that support increased interoperability. The NEXT application should include in-progress and anticipated future research where students can express a desire to collaborate supporting the completion of capstone formal academic requirements. Combining the unique attributes of subordinate NUS facilities, capabilities, and network of partners in mutually supportive collaborative projects will increase the value of research conducted and minimize duplicative parallel research models. In *The Chaos Imperative*, Ori Brafman captures an excellent example of the risks associated with parallel research that fails to mutually support collaboration: during World War II, the Massachusetts Institute of Technology (MIT) and Harvard University both received grants to establish secret labs focused on enabling the Allies to detect enemy aircraft.¹² The

labs, despite being roughly two miles separated by the Charles River, did not know that each other's labs existed and "MIT researchers were baffled on a few occasions to discover that the radar in their lab was not working; little did they know it was being unintentionally jammed by [each other's labs]." Opportunities supported by NUS subordinate facilities, partnerships, and staff expertise should not be viewed as interdependent of one another; rather, they should be considered as complementary and integral components of the whole supporting the creativity and innovativeness of the naval force.

The best thoughts and ideas in each school should be promoted via a NUS annual innovation symposium to increase awareness of research, increase opportunities for communication between schools, and enhance prestige in student research. Gen Berger's planning guidance prioritizes actionable innovation, noting that "meaningful innovation is not just having great thoughts and concepts rather, it is about translating great thoughts and concepts into action." For the NUS, this means communicating good ideas in a consolidated public forum each academic year to increase resourcing and development of the most current and impactful student research. Each year, students at EWS alone contributed to the intellectual development of the joint force through the completion of more than 200 argumentative research papers and professional fellowships of importance to the naval force. The best thoughts and ideas from students at EWS and from students across the NUS should be shared at an annual NEXT innovation symposium emphasizing a succinct analysis of research conducted and its importance to the naval force. The NEXT innovation symposium should be conducted in addition to subordinate innovation symposia to highlight the most impactful thinking developed by faculty and students across the NUS each academic year. Presentations at the annual NEXT innovation symposium can become a capstone event for the academic year. Acceptance to present at NEXT should be prestigious and captured in future observed academic fitness reports.

Students' research efforts should be guided by leaders in positions to prioritize current issues and challenges. Discussions on future force design emphasize that the current force "has shortfalls in capabilities needed to support emerging joint, naval, and Marine Corps operating concepts" necessary to support a "primary focus [on] great power competition and a renewed focus on the Indo-Pacific region."¹³ The increased value and effectiveness of PME, and the balance of competing accreditation priorities, must be measured by the solutions and impacts NUS students are producing for use by the naval force. Service leadership would utilize the NEXT application to formally communicate current issues and challenges facing the Nation. Formally assigning tasks to the NUS for research and development in NEXT increases the efficiency in which impactful problem sets are communicated to the PME community and provides focus to students who desire to contribute to in-demand projects.

Given the anticipated increased lethality, speed, and complexity of a future conflict, the naval force needs to augment its existing PME structure with additional opportunities for accredited graduate-level education to increase the technical expertise and communication skills of the force. Gen Berger's planning guidance identifies educational force as a priority noting that PME must be "as academically rigorous as possible, and no longer consequence free."¹⁴ Modernizing and integrating additional graduate-level electives in existing PME programs increases the academic rigor of the NUS and supports the opportunistic exchange of staff within the NUS. This is necessary to "jointly provide for faculty exchange and visiting professorships on each campus" essential for the naval force to "share ideas across traditional campus and service silos."¹⁵ Faculty exchange can be supported by students within the NUS taking graduate-level electives currently offered at EWS such as the Seminar on War with Dr. Williamson Murray, or by increasing the availability of Naval Post-Graduate School electives that can increase exposure to science

and technology. Augmenting existing PME structure with additional accredited graduate-level education gives NUS students opportunities for individual study outside of core curriculum requirements to enhance the completion of capstone academic requirements and can be captured in future observed academic fitness reports.

The challenge to be *adaptable enough* posed by "Are You Enough?" increases risk to the force in any future time constrained environment. Enhancing anticipation through an increased value of education, as identified by students at EWS in AY20, increases the naval force's ability to fight smart. If *MCDP 1, Warfighting*, is our philosophy for "fighting smart," education initiatives supported by NEXT will be our enduring philosophy for *fighting smarter* in the FOE.¹⁶ The naval force must commit to a reinvigorated academic purpose that maximizes the value of collaboration because "sharing hard-won knowledge represents a combat-proven key to victory for our naval services."¹⁷ The collaborative education model experienced by students at EWS in AY20 emphasized that interactions with those of different backgrounds, specialties, and experiences creates the most value to education. Just as the shared experiences in this structure allow for rapid and flexible sharing of ideas across Services, so too must future educational applications integrate the naval education team to develop creativity and innovation in students, enhance the impact of student research, increase the academic rigor of PME, and create efficiencies in the current time constrained environment necessary to make student contributions to the institution *valuable enough*.

Are You Strategic Enough?

Finally, LTG Barno and Dr. Bensahel challenged the PME class of AY19 to move beyond tactical-level study to prepare for future operational and strategic responsibilities, stating that

[a] true strategic leader [is] someone who understands the bigger and far more complex puzzle of how the nation wages and wins its wars.¹⁸

Operational and strategic studies demand attention, particularly at advanced

schools within the NUS. However, the most valuable lesson learned by the students of EWS during AY20 was this: tactical influence in the form of character, ethos, and values is *the* competitive advantage at all levels of war. The people who make up the naval force and how they outthink and outmaneuver their adversary is the United States' asymmetric advantage in a high-tech conflict. In contrast to battlespace models from the 1990s that emphasized the operational environment as physical, today's battlespace is increasingly non-physical. As a result, tactical-level actions in new domains have limitless effects on operational and strategic objectives.¹⁹ To be *strategic enough*, modern leaders must appreciate strong character, ethos, and values as the naval force's competitive tactical advantage.

A MCU lecture highlighted the importance of tactical influence on strategic operations, noting that tactical wins that fail to support operational objectives are foolish endeavors.²⁰ Advancements in technology, combined with the divestment of digital systems that no longer support the speed of operational requirements, will increase the tempo in which tactical-level decisions are made. The opportunities to make more timely decisions will increase and will more often exist at lower levels of command.²¹ While future academic years continue to focus on operational and strategic studies—particularly at advanced schools within the NUS—the naval force must always discuss the impact of character, ethos, and values in all areas of study. *MCDP 1, Warfighting*, highlights an important principle regarding the implementation of the maneuver warfare philosophy: achieving advantages within the complex and fast-paced FOE will require inherent trust and implicit communications to meet emerging threats.²² In contrast to this principle, Russian and Chinese counter-command and control measures prioritize centralized command and control.²³ The competitive advantage against adversarial centralized execution models is maneuver warfare built on speed and trust. As the future force scales to meet the demands of the *National Defense Strategy*, the NUS must



Gen Gray speaks to the AY20 class of EWS regarding the foundations of maneuver warfare and highlights the importance of understanding and employing maneuver warfare. (Photo by Cpl Cristian L. Ricardo.)

focus education opportunities to support a strong foundation of character, ethos, and values in its study of war at all levels.

Tactical influence on strategic goals supported by decentralized execution is a decisive advantage to the United States if founded on strong character, ethos, and values—however it is fraught with risk. More deliberate attacks and adversary initiatives occurring within the cyber domain, mean that future academic years must continue to foster critical thinking that enhances the positive tactical influence on strategic goals to mitigate this risk. Students at EWS in AY20 identified that tempering the application of doctrine through judgment generates a broader context of *the why* “so that [service members] can better identify when and how to deviate as the situation demands.”²⁴ Studying the profession of arms through the diverse lens of historical conflicts, emphasizing the human dimension in wargames and ethical case studies, and studying the impacts of character, ethos, and values enhance the naval force's competitive tactical advantage.

Are You Enough? A Challenge to the PME Class of AY21

We are not defined by programs, organizational constructs, or missions—we

are defined by our collective commitment to the endeavor of the profession of arms and the defense of the Constitution and people of the United States.²⁵

This principle was the foundation for the development of the MCU by Gen Gray in 1989. In Gen Gray's original guidance prior to standing up MCU, he challenged the university to: 1) improve the operational capability and warfighting effectiveness of the Marine Corps, 2) enhance the high standards of excellence in training and education, 3) focus and revitalize the training of its trainers, and 4) develop and implement the training and education process throughout the Marine Corps. This challenge, which fostered future development of the naval force's education process must now expand to meet the requirements of a dynamic and evolving battlefield that emphasizes increased collaboration, perspective broadening opportunities, and fully invest in the intellectual capacity of the whole naval force through the NUS.

In the spirit of Gen Gray's 1989 challenge to the founders of MCU, the authors of *We Are Enough* challenge the PME class of AY21 to: 1) *Be open-minded enough* to take advantage of new opportunities for human interaction,

risk and embrace failure, and challenge your beliefs as often as possible. 2) *Be valuable enough* to the ten-month investment your Service has made in you. Question your preconceived notions of warfighting, increase collaboration opportunities with your peers, and create opportunities to collaborate on research with your counterparts in the NUS, 3) *Be strategic enough* to analyze the impact of character, ethos, and values in all areas to include planning exercises, academic discussions, and in your personal life to maintain and strengthen the naval force's competitive advantage. And finally, 4) as a cohort, team, conference group, or school—pass on the ten-month investment your Service has made in you by finding an impactful way to communicate and document your lessons learned during AY21, and challenge AY22 to do the same.

Notes

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