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Imagining the Future of Professional Military Education in the United States

Results from a Virtual Workshop

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Published by the RAND Corporation, Santa Monica, Calif.

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About These Conference Proceedings

Professional military education (PME) institutions prepare leaders for the complexity of future conflicts. Like other institutions of higher education, the PME system was forced to abruptly adapt its operations during the coronavirus disease 2019 pandemic. Given these changes, the RAND National Security Research Division organized a one-day virtual workshop of PME leaders to discuss future opportunities for their institutions following the pandemic. The workshop included participants from various PME institutions, J7 Directorate for Joint Force Development, RAND researchers, and other stakeholders, and the participants discussed objectives, requirements, capabilities, and implementation options for the continued evolution of PME programs. Participants generally agreed on PME's goals but tended to disagree on specific means for implementing them. These conference proceedings summarize the results of the workshop, including key themes discussed.

The conference proceedings reported here were completed in February 2023 and underwent security review with the sponsor before public release.

RAND National Security Research Division

These conference proceedings were conducted within the Forces and Resources Policy Program of the RAND National Security Research Division (NSRD), which operates the RAND National Defense Research Institute (NDRI), a federally funded research and development center (FFRDC) sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense intelligence enterprise. These conference proceedings were made possible by NDRI exploratory research funding that was provided through the FFRDC contract and approved by NDRI's primary sponsor.

For more information on the RAND Forces and Resources Policy Program, see www.rand.org/nsrd/frp or contact the director (contact information is provided on the webpage).

Acknowledgments

We are grateful to Laura Miller and Maria Lytell from RAND, who served as facilitators during this one-day workshop. We also thank Carmen Richard and David Cherry for their audio-visual support for the workshop. Finally, we thank Cynthia Watson from the National Defense University and Michael Mazarr from RAND for their initial insights into the design of the workshop.

Summary

In recent years, professional military education (PME) institutions have made a sudden shift to distance learning, which began during the coronavirus disease 2019 (COVID-19) pandemic. Studies show that COVID-19 and pandemic-related disruptions have significantly affected military policies and readiness and negatively affected education for both students and educators across all education levels.¹

In these conference proceedings, we summarize the results of a one-day joint PME (JPME) workshop that we conducted with JPME stakeholders to identify areas for change following the COVID-19 pandemic. During the workshop, participants from various PME institutions and J7 Directorate representatives discussed objectives, requirements, capabilities, and implementation options for the ongoing evolution of PME programs.

Participants generally agreed on PME's goals but tended to disagree on the means for achieving them. Consensus centered on providing PME students with communication skills, joint warfighting strategies, and critical thinking skills and preparing these future leaders for an evolving national security environment. Participants also agreed on the PME requirements to achieve the above objectives by building stable resources, improving advocacy, and identifying clear expectations and responsibilities. However, when the discussion moved to implementation, one group primarily focused on talent management–related topics (e.g., recruitment and retention of faculty) and research while the other group focused on stakeholder management, stability in funding, and continuous experimentation in the delivery of education.

These results highlight several opportunities for PME moving forward, including using the general agreement on objectives to create clear documentation, leveraging technology adopted during the pandemic, and building a diverse student body. The findings also describe several possible barriers that may complicate the implementation of PME objectives. These roadblocks, which received the largest discussion during the workshop, included difficulties navigating bureaucracy, obtaining stable funding, and balancing the varied demands of talent management.

¹ One article, by Kristy Timmons, notes that the pandemic created a “global crisis for education” (Kristy Timmons, Amanda Cooper, Emma Bozek, and Heather Braund, “The Impacts of COVID-19 on Early Childhood Education: Capturing the Unique Challenges Associated with Remote Teaching and Learning in K-2,” *Early Childhood Education Journal*, Vol. 49, No. 5, 2021, p. 898). See also Avery Calkins and Beth J. Asch, *What Happened to Military Recruiting and Retention of Enlisted Personnel in 2020 During the COVID-19 Pandemic?* RAND Corporation, RR-A1092-1, 2022; Bradley Martin and Trupti Brahmabhatt, *Readiness Implications of Coronavirus Infections on U.S. Navy Ships*, RAND Corporation, RR-A468-1, 2021; “Aleksander Aristovnik, Damijana Keržič, Dejan Ravšelj, Nina Tomažević, and Lan Umek, “Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective,” *Sustainability*, Vol. 12, No. 20, 2020; Daniel C. Barton, “Impacts of the COVID-19 Pandemic on Field Instruction and Remote Teaching Alternatives: Results from a Survey of Instructors,” *Ecology and Evolution*, Vol. 10, No. 22, 2020.

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Chapter 1. Background

The summary of the 2018 National Defense Strategy states that military education should “emphasize intellectual leadership and military professionalism in the art and science of warfighting . . . to counter competitors.”² Professional military education (PME) is designed for officers and is intended to develop habits of the mind to build leaders with a wealth of professional knowledge.³ As a component of PME, joint PME (JPME) relates to the aspects of education that apply to joint matters, including joint doctrine, joint command and control, and joint planning at all operational levels.⁴ These concepts have been integrated into a recent Joint Chiefs of Staff publication, which acknowledges that PME seeks to “produce leaders who embody the knowledge, skills, and attributes necessary to succeed in a volatile, uncertain, complex, and ambiguous battlespace.”⁵ In this chapter, we first briefly review PME’s history, then provide a review of more-recent developments, and finally discuss the motivations for a virtual workshop that we conducted with JPME stakeholders to explore opportunities for the ongoing evolution of PME programs.

History of Joint Education in the Military

In the wake of World War I, the U.S. government recognized a need to coordinate the country’s industrial base in support of the war effort. As a result, the government began to construct a system to ensure that the War Department would be ready for future conflicts. It was during this time that the Industrial College of the Armed Forces (ICAF) was established, in 1921, to train officers in procurement and mobilization of materials. By 1925, ICAF included officers from the Navy; and, by 1944, civilians were invited to attend.⁶ This period marked the formation of a modern PME system in the United States.

² U.S. DoD, *Summary of the National Defense Strategy of the United States of America: Sharpening the American Military’s Competitive Edge*, 2018, p. 8. See also John W. Yaeger, “The Origins of Joint Professional Military Education,” *Joint Force Quarterly*, No. 37, 2005.

³ Joint Chiefs of Staff, *Enlisted Professional Military Education Policy*, Chairman of the Joint Chiefs of Staff Instruction 1805.01B, May 15, 2015a.

⁴ For the remainder of these conference proceedings, we use the general term *PME* to encompass JPME (Joint Chiefs of Staff, *Officer Professional Military Education Policy*, J-7, Chairman of the Joint Chiefs of Staff Instruction 1800.01F, May 15, 2020). Throughout these conference proceedings, we broadly refer to *the PME system*, which includes JPME institutions.

⁵ Joint Chiefs of Staff, *Developing Enlisted Leaders for Tomorrow’s Wars*, 2021, p. 2. This publication lists the following attributes of JPME leaders: intellect, credibility, accountability, agility, and discipline.

⁶ Yaeger, 2005.

At the start of World War II, the National War College was created to give officers an understanding of how to participate in joint operations and coordinate combined Army and Navy efforts.⁷ This was the first implementation of cross-service education to improve jointness. In 1944, the college was expanded to address newly identified needs of the military. At the end of the war, President Harry Truman recommended to Congress that a Department of National Defense be formed because “such a universal step—along with universal training . . . now means preparedness not only in armaments and numbers but also in organization.”⁸ The Joint Chiefs formed the Special Committee for Reorganization of the National Defense with the idea that the peacetime joint forces education at the National War College would be based on three basic imperatives: to exchange duties and training between services to enable students to execute joint plans, to provide joint education at intermediate levels to develop officers’ ability to plan and participate in joint activities, and to provide joint education to develop officers’ ability to conduct large-scale operations and formulate strategic concepts.⁹ Both the National War College and ICAF were built during the world wars and sought to provide immediate education and assistance at an intermediate level to meet the evolving needs of the military.

During the Vietnam War, ICAF’s focus expanded to include not only industrial mobilization but also officer education in logistical resource management during conflicts. This was part of a larger shift of PME, and, in the mid-1970s, a merger based on political and economic considerations combined ICAF and the National War College into the National Defense University (NDU).¹⁰

The Vietnam War raised questions regarding the effectiveness of U.S. joint operations. For example, General David Jones, the chairman of the Joint Chiefs of Staff at the time, described the U.S. performance in the war as follows:

Our worst example of confused objectives and unclear responsibilities in Washington and in the field. Each service, instead of integrating efforts with the others, considered Vietnam its own war and sought to carve out a large mission for itself.¹¹

These concerns arose again following several missions that exposed limitations in joint military operations (e.g., Operation Eagle Claw in Iran in 1980, Operation Urgent Fury in

⁷ In 1942, Major Henry H. (“Hap”) Arnold led a Joint Staff study that established the purpose of the War College, which was to “train selected officers of the Army and Navy for command and staff duties with unified (Army-Navy) commands” and “develop methods and ideas for the most effective unified employment of all arms and services and to translate lessons learned in the field into appropriate doctrines” (Yaeger, 2005).

⁸ Harry S. Truman, “Special Message to the Congress Recommending the Establishment of a Department of National Defense,” 1945.

⁹ Yaeger, 2005.

¹⁰ Yaeger, 2005.

¹¹ Ronald H. Cole, “Joint Operational Reform,” *Joint Force Quarterly*, Autumn/Winter, 1998, p. 57.

Grenada in 1983, and the 1983 bombing of the Marine Corps barracks in Lebanon). For example, Operation Eagle Claw was intended to free 52 hostages in Tehran, Iran, in April 1980. However, communication failures, interservice rivalries, and an overabundance of untrained officers prevented the success of the mission.¹² As a result of the failed mission, several U.S. servicemen died when a U.S. helicopter collided with a U.S. transport plane and the U.S. hostages spent a further 270 days held in Tehran.¹³ In October 1983, problems with joint communications in Beirut, Lebanon, led to the deaths of 241 marines in a terrorist bombing after chain-of-command issues, inconsistent orders, and unclear objectives placed the marines in unnecessary danger.¹⁴ Finally, the evacuation operation in Grenada showed a clear lack of communication and ability to operate jointly. Although the mission to evacuate medical students and foreign citizens was successful, it was clearly haphazard and confused.¹⁵ The Vietnam War and Operation Eagle Claw prompted the discussion on joint challenges, but the failures in Lebanon and especially Grenada in 1983 provided the impetus for action.¹⁶

Senators Barry Goldwater and Sam Nunn used these failures as the basis of identifying areas for improvement within joint operations and education.¹⁷ As a result, PME was restructured in 1986 with the passing of the Goldwater-Nichols Act, which implemented sweeping changes to the DoD, including dramatically altering the requirements for officer promotions. The new rules included a requirement that officers must complete one joint duty assignment and one PME program prior to promotion.¹⁸ These changes were a part of PME's broader transition to accommodate a PME component and, as a result, fully solidified the PME enterprise into a full set of educational programs. PME now seeks to train officers in joint operations, communications, and problem-solving to avoid repeating the failures of the 1970s and 1980s.

¹² Richard A. Gabriel, *Military Incompetence: Why the American Military Doesn't Win*, Hill and Wang, 1986.

¹³ Maj Richard A. Radvanyi, *Operation Eagle Claw—Lessons Learned*, master's thesis, Marine Corps University, 2000.

¹⁴ Cole, 1998.

¹⁵ Charles Nempfakos Irv Blickstein, Aine Seitz McCarthy, and Jerry M. Sollinger, *The Perfect Storm: The Goldwater-Nichols Act and Its Effect on Navy Acquisition*, RAND Corporation, OP-308-NAVY, 2010.

¹⁶ Cole, 1998.

¹⁷ Nempfakos et al., 2010.

¹⁸ According to Public Law 99-433, Goldwater-Nichols Department of Defense Reorganization Act of 1986, October 1, 1986,

An officer who is nominated for the joint specialty may not be selected for the joint specialty until the officer—

(A) successfully completes an appropriate program at a joint professional military education school; and

(B) after completing such program of education, successfully completes a full tour of duty in a joint duty assignment.

Recent Developments

PME's modern structure contains five education levels: The first two are focused on service and tactics without a significant joint component, and the last three focus on the operational and tactical aspects of war from a joint services perspective.¹⁹ The program has evolved to incorporate a collection of joint learning objectives that allow officers to operate in a joint environment, and completion of the course is a requirement for officers to command in a joint capacity.²⁰ As a result, the program has grown to meet the needs of a broadening constituency and now encompasses a large number of stakeholders and varied institutions needed to provide officers with the requisite certification for advancement.²¹

The 2018 National Defense Strategy summary states that PME has “stagnated” and “focused more on the accomplishment of mandatory credit at the expense of lethality and ingenuity.”²² Several reports have reviewed PME's future-oriented transformation.²³ As noted above, PME has evolved to address the current needs of the U.S. military and has reformed, reorganized, and changed the processes for service education and joint readiness. Recent research has sought to assist PME's process of transformation, including a recent study focused on adapting the education structure to an outcomes-based evaluation process.²⁴ Additionally, changes in technology and warfighting have challenged the PME system to evolve and ensure that PME continues to prepare future generations for an ever-changing combat environment while

¹⁹ The levels of JPME are as follows:

“(1) Pre-commissioning JPME taught through accession sources; (2) Primary level of joint knowledge; (3) JPME Phase-I taught at or through Service or select intermediate-level colleges (ILCs) and associated nonresident programs or select Service senior-level college (SLC) non-resident course offerings; (4) JPME Phase-II taught at Joint and Service SLCs or the JFSC; (5) GO/FO courses” (Joint Chiefs of Staff, Officer Professional Military Education Policy, Chairman of the Joint Chiefs of Staff Instruction 1800.01F, May 29, 2015b, p. A-A-6).

²⁰ Naval Postgraduate School, “Common Questions,” webpage, undated.

²¹ The current institutions offering JPME education at the intermediate and senior levels are the Naval War College's College of Naval Command and Staff and College of Naval Warfare, the U.S. Army War College at Carlisle Barracks, the Army Combined Arms Center's Command and General Staff College, the Marine Corps University's Marine Corps Command and Staff College and Marine Corps War College, and Air University's Air Command and Staff College and Air War College (U.S. Government Accountability Office, *Professional Military Education: Programs Are Accredited, but Additional Information Is Needed to Assess Effectiveness*, GAO-20-323, February 2020).

²² DoD, 2018, p. 8.

²³ Joint Chiefs of Staff, *Developing Today's Joint Officers for Tomorrow's Ways of War: The Joint Chiefs of Staff Vision and Guidance for Professional Military Education & Talent Management*, May 1, 2020a; Joint Chiefs of Staff, 2021; Vincent C. Bowhens, *Manage or Educate: Fulfilling the Purpose of Joint Professional Military Education*, National Defense University, January 2012.

²⁴ Paul W. Mayberry, Charles A. Goldman, Kimberly Jackson, Eric Hastings, Hannah Acheson-Field, and Anthony Lawrence, *Making the Grade: Integration of Joint Professional Military Education and Talent Management in Developing Joint Officers*, RAND Corporation, RR-A473-1, 2021.

maintaining interservice understanding and interoperability.²⁵ Scholars have noted that the development training and education is essential and, by nature, ever-changing thanks to the ongoing invention of novel technologies.²⁶

Motivation for the Virtual Workshop

In recent years, there has been an increasing set of demands placed on the PME system. For one, the U.S. military is facing a growing number of threats, including from China, Russia, Iran, and nonstate actors.²⁷ Furthermore, the military is confronting these threats on land, at sea, and in the air, as well as in cyberspace and space.²⁸ This has been compounded by a growing network of requirements from a variety of PME constituents who seek to build an adaptive program for future warfighting challenges. As noted in a recent RAND Corporation study, “developing stronger relationships among joint stakeholders, the military services, and joint educational institutions” is necessary “to deepen engagement about outcomes and direct authentic assessments” of the evolving PME program.²⁹

Like other institutions of higher education in the United States,³⁰ PME institutions had to abruptly adapt to different communication strategies during the coronavirus disease 2019 (COVID-19) pandemic. PME’s various adaptations to the COVID-19 pandemic compounded the pressures from PME stakeholders for the PME structure to confront the global threat environment. Finally, PME institutions made a sudden shift to distance learning during the

²⁵ DoD, 2018.

²⁶ John D. Winkler, Timothy Marler, Marek N. Posard, Raphael S. Cohen, and Meagan L. Smith, *Reflections on the Future of Warfare and Implications for Personnel Policies of the U.S. Department of Defense*, RAND Corporation, PE-324-OSD, 2019.

²⁷ Eric Heginbotham, Michael Nixon, Forrest E. Morgan, Jacob L. Heim, Jeff Hagen, Sheng Tao Li, and Jeffrey Engstrom, *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017*, RAND Corporation, RR-392-AF, 2015; Stephen Watts, Bryan Rooney, Gene Germanovich, Bruce McClintock, Stephanie Pezard, Clint Reach, and Melissa Shostak, *Deterrence and Escalation in Competition with Russia*, RAND Corporation, RR-A720-2, 2022; Jason H. Campbell, Stephen Dalzell, Anthony Adler, Mary Avriette, Jalen Zeman, and Kevin J. Connolly, *U.S. Resourcing to National Security Interests in Latin America and the Caribbean in the Context of Adversary Activities in the Region*, RAND Corporation, RR-A847-1, 2022.

²⁸ Nathan Beauchamp-Mustafaga, Derek Grossman, Kristen Gunness, Michael S. Chase, Marigold Black, and Natalia D. Simmons-Thomas, *Deciphering Chinese Deterrence Signalling in the New Era: An Analytic Framework and Seven Case Studies*, RAND Corporation, RR-A1074-1, 2021; Bilyana Lilly and Joe Cheravitch, “The Past, Present, and Future of Russia’s Cyber Strategy and Forces,” paper presented at 12th International Conference on Cyber Conflict, Institute of Electrical and Electronics Engineers, 2020.

²⁹ Mayberry et al., 2021, p. xxii.

³⁰ For some examples, see Jamil Salmi, *COVID’s Lessons for Global Higher Education*, Lumina Foundation, November 2020; Sean Gallagher and Jason Palmer, “The Pandemic Pushed Universities Online. The Change Was Long Overdue,” *Harvard Business Review*, September 2020; Suzanne B. Goldberg, *Education in a Pandemic: The Disparate Impacts of COVID-19 on America’s Students*, Office of Civil Rights, U.S. Department of Education, June 2021.

pandemic. Studies show that pandemic-related disruptions have significantly affected military policy and readiness and have also affected PME students and educators across all education levels.³¹ We developed the workshop described in the remainder of these conference proceedings to bring together PME stakeholders and identify opportunities for change going forward.

Given the context of these changes, the purpose of the workshop was to bring diverse stakeholders together for an organized, free-flowing discussion that focused on strengths and capabilities in the arrangement of organizations, personnel, curricula, policies, and procedures within the U.S. military's PME system. As noted in the Joint Chiefs of Staff's vision for PME, critical tasks include adapting and innovating education, developing practical warfighting skills, demanding and rewarding academic excellence, and developing professional faculty.³²

³¹ One article, by Kristy Timmons, notes that the pandemic created a "global crisis for education" (Kristy Timmons, Amanda Cooper, Emma Bozek, and Heather Braund, "The Impacts of COVID-19 on Early Childhood Education: Capturing the Unique Challenges Associated with Remote Teaching and Learning in K-2," *Early Childhood Education Journal*, Vol. 49, No. 5, 2021, p. 898). See also Avery Calkins and Beth J. Asch, *What Happened to Military Recruiting and Retention of Enlisted Personnel in 2020 During the COVID-19 Pandemic?* RAND Corporation, RR-A1092-1, 2022; Bradley Martin and Trupti Brahmabhatt, *Readiness Implications of Coronavirus Infections on U.S. Navy Ships*, RAND Corporation, RR-A468-1, 2021; "Aleksander Aristovnik, Damijana Keržič, Dejan Ravšelj, Nina Tomažević, and Lan Umek, "Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective," *Sustainability*, Vol. 12, No. 20, 2020; Daniel C. Barton, "Impacts of the COVID-19 Pandemic on Field Instruction and Remote Teaching Alternatives: Results from a Survey of Instructors," *Ecology and Evolution*, Vol. 10, No. 22, 2020.

³² Joint Chiefs of Staff, *Developing Today's Joint Officers for Tomorrow's Ways of War: The Joint Chiefs of Staff Vision and Guidance for Professional Military Education & Talent Management*, May 1, 2020a.

Chapter 2. Workshop Approach

We hosted a virtual workshop that brought together a diverse set of stakeholders to imagine the future of PME in the United States.³³ The topic was intentionally broad to allow for a range of topics based on the interests of attendees. This chapter describes some of the workshop logistics and the workshop agenda.

Workshop Logistics

The workshop was an all-day event that occurred on April 21, 2022, via Zoom. This exercise was designed as a “blank slate” approach, meaning that the agenda items were purposefully broad, and the authors did not send read-ahead packages to attendees. The reason for this decision was to ensure no bias in the types of ideas or views that were—or were not—acceptable for this discussion.

The sample of participants that we invited primarily came from those working within DoD or individuals associated with DoD. We promised anonymity for all participants and, therefore, do not list identifiable information about them in these conference proceedings. Many of the attendees of this workshop were

- faculty, staff, and senior leaders from U.S. PME institutions
- foundations associated with institutions of PME
- staff from the Joint Chiefs of Staff
- RAND researchers.

We used a chain-sampling approach that identified a small group of interested stakeholders who expressed interest in the topic to researchers at RAND. Based on this group’s recommendations, we expanded our list of invitees and then asked for those on this expanded list to recommend additional invitees. We estimate that about 25 stakeholders participated in this workshop throughout the day.³⁴

³³ This workshop was originally titled, “A Virtual Workshop on Imagining the Future of Joint Professional Military Education (JPME) in the U.S.” The attendees included stakeholders from both JPME and PME institutions, which allowed for discussions about both types of institutions. These conference proceedings focus on PME broadly and also on JPME-related topics.

³⁴ The attendance number is an estimate for at least three reasons. First, some attendees asked to join at the last minute or midway throughout the day without formally giving an RSVP. Thus, we may not have had their names recorded in our final roster. Second, we believe that some attendees joined the workshop in groups that used one Zoom account. Third, some attendees had to leave midway through the day but asked their colleagues to join on their behalf during later parts of the day.

We assigned these participants into two groups, each of which was led by a discussion facilitator—Laura Miller or Maria Lytell from the RAND Corporation—who followed the same discussion protocol displayed in Appendix A. Each group also had a notetaker who took notes on what was said without including personally identifiable information about participants. We assigned participants based on their affiliations to maximize diversity within groups. As a notional example, we would assign two people from Air University to different groups to ensure each group had representation from the U.S Air Force.

Workshop Agenda

Table 2.1 displays the workshop agenda, while Table A.1 in Appendix A displays the facilitation guide that was followed by group facilitators. Workshop attendees did not see the facilitation guide before or during the workshop. Table 2.1 shows that the day began with an optional communications check, followed by a welcome and overview by leaders from RAND and the PME community. The workshop then assigned participants to small groups where they had a chance to introduce themselves to each other.

Table 2.1. Workshop Agenda

Time (ET)	Discussion Topic
8:15–9:00 AM	Communications Check (Optional)
9:00–9:45 AM	Welcome and Overview
9:45–10:00 AM	Introductions in Small Groups
10:00–12:00 PM	Small Group Discussions on PME Objectives and Requirements
12:00–12:30 PM	Lunch Break
12:30–2:30 PM	Small Group Discussion on PME Capabilities and Implementation
2:30–3:30 PM	Short Break
3:00–4:00 PM	Small Group Out Brief and Discussion
4:00–4:30 PM	Workshop Concludes/Farewell Remarks

The workshop was structured around four key questions:

1. What are the top objectives for PME?
2. What resources are required to meet these objectives?
3. What current capabilities exist to achieve these objectives?
4. What key themes were discussed about implementation?

Facilitators informed participants that the goal of the workshop was to brainstorm each question, discuss options, prioritize issues, and reach consensus on key objectives and capabilities. The morning session focused on the two questions related to objectives and requirements. The afternoon session focused on current capabilities and implementation. After these sessions, the group would identify some key takeaways that were inserted into slides used

for an out-brief and discussion at a session that included a session with both groups together. We note that there was an urgent request sent to many of the attendees during the second half of the afternoon session, requiring several participants to leave the workshop. The workshop concluded with a brief presentation on the key takeaways from the day's discussion, a brief discussion of these presentations, and concluding remarks by RAND leadership. In the next chapter, we discuss some of the key themes that emerged during these discussions.

Chapter 3. Key Trends

This chapter reviews key themes, conclusions, points of agreement, and differing perspectives that participants raised throughout the day. This chapter follows the agenda of the workshop, starting with objectives and then continuing with requirements, capabilities, and implementation.

Objectives of PME

We assigned participants to one of two groups and presented them with the initial discussion questions on PME's top objectives (see Appendix A). For the first section, participants in each group identified a wide range of topics related to PME objectives: developing critical thinkers, moving to an outcome-based approach, balancing congressional expectations, encouraging international participation, fostering effective communication, and implementing greater flexibility.

Participants noted that identifying these objectives requires a common understanding of both where PME currently stands and its future development. At its core, participants argued that PME is intended to prepare students for the rest of their careers. For example, one participant said, "you are developing these individuals not just for the active-duty service but for positions after service." To this effect, the information that graduates learn should not be identical across institutions, but instead be tailored to the respective level and field in which graduates plan to operate. At a strategic level, participants across both groups agreed that PME should bring the elements of national power together to defeat adversaries while seeking to prevent war by shaping the landscape through strategic thinking.

Participants in both sessions highlighted that PME should develop students into inquisitive, strategic problem solvers. An uncertain future requires critical thinkers who can operate in unfamiliar environments. Participants pointed out that this extends to the need for PME to be predictive and focus both on current and future outcomes. One participant said, "We have to be predictive, not just providing graduates with the outcomes important for today, but outcomes that are important for tomorrow." Currently, PME is in the middle of a transition "from the traditional content-based approach to outcome-based approach. That's a significant paradigm shift." One participant pointed out that these outcomes should therefore be fully developed and restricted to between four and six specific objectives, which will allow the curriculum to be written with clear and established aims. Another participant noted that the "strength in an outcome-based approach is looking at all these things through the lens of our mission."

The discussions within both groups highlighted that the importance of establishing clear curricular goals is complicated by PME's diverse body of stakeholders. The variety of

stakeholders leads to a disparate set of requested implementations, curriculum adjustments, and topic shifts that oversaturate the ten-month program.³⁵ One participant warned that “the laser focus on new topics is a detractor” and another participant added that while “it’s seductive to assume PME can do everything,” the programs need to develop “an ecosystem approach among stakeholders” to balance new priorities with curriculum capabilities.

Along this line, some participants noted that communication is key both within PME with respect to student development and between stakeholders. Participants drove home the importance of this concept, with one individual warning that if a student cannot clearly communicate, then “your idea is dead.” Another participant noted there are drawbacks in trying to teach communication skills to students who will operate on different levels in different systems, such as between services, ranks, and international students. This led into a larger debate for one of the groups on the role of international students within PME and current dissonance stemming from the desire for some programs to increase classified instruction despite the fact these programs may have up to one-third of their student body originating from other nations. Both groups noted the value of international exposure for students in improving critical knowledge, working and communicating across cultures, and providing both a domestic and international perspective to joint education.

The final topic discussed in the first session highlighted students’ desire for flexibility across all PME programs. One salient theme discussed in one of the groups was a noticeable increase in the average officer’s desire for stability and predictability for them and their families. As noted by one participant, “We struggle to get the best and brightest students [because they] are often the distance education students, due to career opportunities.” Some officers might be less willing to move for education, favoring other career opportunities instead. This creates complications in developing PME curriculum, because there are differing constraints and opportunities between in-residence and distance programs. One difference between the program structures stems from the ability for in-person students to engage in networking between classes and around campus, which one participant highlighted as a “major outcome” of in-person education.³⁶ Finally, participants noted that distance learning should be developed and measured differently than in-person classes.

Following the opening discussion regarding PME’s various objectives, each group identified three major objectives. These were iterated by the team and placed into a slide for each team (See Appendix A for initial wording). Group A identified objectives focused on student

³⁵ There is also concern that this timeline is not long enough, that it pressures students to absorb too much material too quickly, and that JPME program designers “need to give students time for thought and reflection to allow them time to digest and reflect on the material.”

³⁶ This participant said, “We need to be mindful that we’ve been talking about in-residence vs. distance [education]. We need to keep in mind the correspondence, too. Networking is part of the in-residence course and a major outcome, and this is different than distance learning.”

outcomes. The first objective was to give students skills in critical and strategic thinking while preparing graduates for unknown situations. The second objective was for PME programs to teach communication, persuasion, and advisory skills. The final objective from Group A emphasized the importance of preparing students for current and future roles in warfighting and national security positions.

Group B identified similar objectives regarding student outcomes, with more focus on the range of skills required across the wide variety of PME programs. For Group B, PME's first objective should be to prepare graduates across all levels to apply critical and strategic thinking skills to become adept in joint warfighting. Participants noted that these skills must allow for differences in program objectives across missions and operational levels and transmit the range of skills required for joint commanders. The second objective of PME, according to Group B, should be to provide thought leadership on joint, interagency, intergovernmental, and multinational (JIIM) matters over the long term. And finally, PME's third objective should be to develop leaders with the ability to operate adeptly across the JIIM spectrum and understand the requirements unique to each JIIM category.

By identifying these objectives, both groups highlighted the importance of critical and strategic thinking skills as well as the importance of teaching students how to operate in a variety of postgraduate positions within the national security environment.

Requirements of PME

Once the groups had identified some key objectives, the facilitators focused the conversation to the necessary requirements for PME to achieve the objectives discussed in the previous section. Both groups identified the need for engaged critical thinkers and external advocates to provide steady funding. Additionally, some participants also identified that PME needed an established framework and improved acculturation.

One group's conversation began with a desire to build a specific framework for each program without trying to encompass all education levels and curriculum foci into one system. While participants noted that clear guidance is important, they expressed concern that writing universal guidelines would be too restrictive for the variety of PME programs on offer across officer levels, topics, and methods of instruction.³⁷ Participants specifically highlighted some current confusion regarding what PME is intended to do, that "clear expectations would be very helpful," and that PME stakeholders should provide clarity on what aspects of which programs should be better developed. As one participant stated, "We cannot be everybody's everything, we have to be something specific."

³⁷ For example, a remote class for entry-level officers on logistics support should not be beholden to the exact same criteria as a higher-level, in-person officer program focused on joint strategy.

Both groups highlighted that dedicated and critical thinkers are imperative to building a strong and engaged student body while ensuring the new system can fulfill PME's objectives. One participant noted that, for PME to be effective, successful student selection relies on educating the correct person at the correct time for the correct position for PME to be effective. These students must be prepared to engage critically with their programs and build strategic thinking that is applicable to their positions. However, to build critical thinkers, the students also should be dedicated to the program, rather than perceiving PME, as one participant worried, as a "checkbox for promotion."

Several participants expressed a similar concern that some view PME programs as just another professional requirement for promotion and fail to recognize the longer-term benefits of promoting critical thinking for officers. Other participants raised the point that PME programs demand significant time from their students to gain these longer-term benefits. In some cases, students may have other personal and professional demands that compete for their attention before and during their enrollment at PME institutions.

To overcome these issues, both groups noted that PME requires advocates outside the PME system to act as facilitators by distributing predictable funding, providing academic support and freedom, giving opportunities to experiment, and building clear expectations. Several participants highlighted difficulties regarding the stability and predictability of curriculum development, staffing, faculty retention, and student engagement. One participant stated, "to execute, we need authorities, responsibilities, and resources." Many participants noted that a congressional advocate would likely ameliorate many of these concerns and provide stability. One stakeholder noted that while the service-derived PME programs have an advocate in their joint chiefs, the NDU lacks a parent service to act as its representative.

The final noteworthy issue that was discussed in the workshop's second discussion was the need to improve joint acculturations, prepare students for the program, and adjust PME faculty expectations. One participant specifically noted that online classes have made it difficult to bring students from diverse backgrounds onto the same page.

At the end of the second discussion regarding PME's various requirements, each group identified requirements for achieving their previously stated objectives (see Appendix B for the initial slide results). Group A identified a single key requirement that encompasses the aspects they discussed. To achieve PME objectives, the programs require increased resources (including a dedicated advocate), clear responsibilities, adjusted talent selection, and implementation of evaluation programs through follow-on experiences of students. Group B identified three requirements: PME advocacy beyond the service level, a source of stable and sufficient funding, and clear expectations and priorities for PME on the part of stakeholders. While Group B identified three separate requirements, the focus on resources, advocacy, clear expectations, and responsibilities align with the requirements of Group A.

Capabilities of PME

After the morning session was completed, the groups had a short lunch break and reconvened to discuss which PME capabilities would allow the programs to achieve their requirements. Both groups noted the importance of talent management and highlighted several derivative capabilities—including distance learning, critical thinking, faculty selection, and increased involvement of international students—that would help PME to strive for its aforementioned objectives. Both groups also noted that an outcomes-based approach would allow PME to balance directed topics and overall objectives. Participants also mentioned the importance of developing methods to evaluate progress and the value of stable resources to support these capabilities.

One of PME’s talent management–related capabilities that participants focused on was the careful and deliberate use of distance learning. Participants noted that their programs had plans to expand the pre-resident portion of distance learning but warned that both acculturation and achieving outcomes is challenging in an online platform; they noted that “it’s different when you’re dealing with online. It’s a different set of skills. We have to hire a second faculty.” One participant cautioned that trying to replicate an in-person curriculum online was likely to fail because certain skills, which are learned more easily in an in-person environment, become difficult to grasp in an online format. Additionally, one person mentioned that technical issues and asynchronous online programs could lead to significant setbacks for the short (ten-week) program.³⁸ Participants agreed that online learning was more expensive than it initially seemed, not only because of complications in beginning the courses but also because of a need to hire faculty and support staff who are effective in an online environment, as these faculty likely differed from those who thrived in in-person settings.

There was also significant debate regarding the talent management of students, which, participants mentioned, led to evolving expectations for PME enrollment. Some participants stated that students did not arrive equally equipped with the skill sets required to succeed within PME’s current structure, especially in programs that are more academically rigorous. One participant asked if the graduate-level course style was necessary, while others noted that students required pre-existing skill sets to be successful critical thinkers. Participants agreed that tested students had varied results on their evaluations, which were based on writing samples and formal examinations, revealing a wide spectrum of preparedness for the PME courses. Overall,

³⁸ Participants debated whether online courses could be effective full time, with some stating that it was not worth the return on investment, especially because training materials were expensive, while another pointed out that an instructional designer was instrumental for digitizing their programs during COVID-19. The latter participant noted that once the tools were in place, training faculty and students was doable, though not identical to an in-person experience.

participants noted that, because PME's goal is to create critical and strategic thinkers, developing a strategy of critical thinking for students was a key capability.

In addition to student capabilities, participants discussed faculty hiring and retention. There was a clear focus on the dichotomy between hiring specialists and interdisciplinary faculty as well as the need for scholars focused on praxis and the applied sciences. Participants noted that recruiting and developing quality faculty takes significant time and requires familiarization in a broad range of topics. One participant focused on the importance of training faculty: "We have to hire them and then develop them to a realistic level—they have to be credible experts." Others noted that faculty are required to teach atypical subjects for those with traditional academic backgrounds, such as warfighting and leadership. Comparably, specialization may not always offer the flexibility for program adjustments.

The final aspect of talent management that both teams highlighted focused on the currently juxtaposed priorities of gathering more international students and expanding classified spaces. Participants noted that interagency and international students broaden perspectives and lead to unique opportunities for connections. However, international student participation may limit the creation of additional classified spaces (because classified courses prevent international participation). One participant noted how this conflict between international participation and classified educational material may under some conditions create "clear tensions between facilities and capability to do classified [work] and increased international presence."

In addition to talent management, the first afternoon session also included discussion from both groups about the capacities required to further develop the desired outcomes-based approach for PME. Participants focused on the need to balance directed topics and overall PME outcomes to ensure that students leave the program prepared. Some participants voiced concerns that the number of topics and frequent addition of new topics detracts from the quality of instruction. One participant mentioned that "we need to better integrate the curriculum to better build on previous teaching points. It will reduce time requirements and enhance retention." Therefore, participants argued that outcomes must be clear and integrated to give programs the time, resources, and ability to achieve evolving objectives.

Building on this concern, one of the groups mentioned the allocation and usage of resources. The group noted that buildings, facilities, and knowledge management services were inconsistently maintained and utilized across PME programs and campuses. One participant described how one "challenge is that the DoD thinks in terms of deep development (vertical) rather than horizontal development across an entire class. Both are needed, but in the right places."

Along these lines, participants noted that assessing PME outcomes requires a clear evaluation process. Feedback is currently gathered at several intervals following a graduate's completion of the course; however, participants believe that further data collection is necessary to fully

understand the direction of education.³⁹ One roadblock that some highlighted was the need for experts who understand the curriculum to build creative academic methodologies and authentic assessments and write rubrics to guide talent management. Participants expressed frustration with building and evaluating progress, asking the following questions: “Who can help build authentic assessments?” “What is a stellar performer?” “How can we design rubrics that [measure] talent?” While PME-affiliated participants worried that PME programs can be perceived as inflexible and unable to adjust to the changes mentioned above, multiple participants stated that the programs are agile, but change cannot come immediately in an academic setting because adjustments require time and proper phasing to ensure that students receive a coherent curriculum.

At the end of the third discussion on required capabilities required to achieve their listed objectives, the groups built out a final set of PME capabilities (see Appendix B, which contains each group’s initial takeaways). Group A identified three PME capabilities focused on talent management. The first requirement was to further develop a faculty that can combine both depth and breadth of expertise. The second requirement was to build a talent management system that prepares students for PME expectations. And finally, participants identified the need to balance outcomes and content focus among diverse stakeholders.

Group B identified a different set of capabilities, focused more on outcomes and evaluation. Group B’s first capability for PME was to leverage technology while assessing implementation in order to generate consistent and desirable outcomes. The second capability that participants noted was that distance learning and in-person instruction should be built to achieve objectives using applicable resources for the medium of education. Group B’s third and final identified capability was to ensure continued collaboration between institutions and other stakeholders while maintaining the agility of PME programs. These three capabilities highlighted the importance of the PME process’s talent management, outcomes, and evaluations in ensuring that PME requirements and objectives are met.

Implementation of PME Objectives

The final section of the workshop asked the groups to discuss the implementation of ways to achieve PME objectives. The conversations varied between the two groups: One group largely focused on talent selection while the other group largely discussed the requirements for change, experimenting with and measuring change, and the cost of distance learning.

The group discussion primarily focused on talent selection explored the current perception of PME in academia and methods of student engagement and faculty selection. Some participants

³⁹ As one participant put it, “you have to gather the data and be able to analyze the data to determine if you produced graduates that have the knowledge and skills to do what you’re claiming they are [gaining]. We would like to have more of that and analysis at the local level to see if programs are meeting what they say they’re meeting.”

noted a broader civil-military divide within academia. Specifically, participants mentioned some civilian perceptions (or misconceptions) that PME experiences may not translate well to civilian positions at academic institutions. Additionally, some raised concerns that potential faculty members from civilian academic institutions could become frustrated by the amount of time available to them within PME institutions to conduct research. Similarly, some students perceive PME as a necessary step rather than a personally worthwhile endeavor. Some participants expressed the view that there was significant friction between PME's current role as an operational step for career progression and PME's objectives aimed at critical thinking and student engagement. One participant stated that

because PME is a job requirement, students aren't self-selecting for self-interest and thus are seen as inferior pupils to programs where the students are choosing to pursue higher education.

This observation relates to the PME's evolution into an important promotional requirement. PME's role in promotions may affect both students' perceptions of their classmates and faculty engagement, and therefore relates to Group A's concern regarding talent management strategies.

The participants of Group B focused more on iterating the PME process. One person noted that for change to occur in PME, faculty must be engaged and dedicated to the missions, funding must be clear and consistent, and there should be a focus on leader development. Once these requirements have been met, research into program evolution can occur. Participants noted that while experimentation is important, it also introduces several risks. Because students are only enrolled in some programs for a relatively short period of time, there is less time to correct issues that may appear when implementing experimental methods or tools. To prevent drawbacks that may result from poorly adopted programs, participants expressed an interest in slow and measured experimentation.⁴⁰ Participants expressed concern that overreaching implementation of experimental techniques may not properly prepare students as "they live with what we've done." Another concern was that rapid-fire experimentation or assessment would only allow short-term gains and losses to be measured, despite the long-lasting effects of education.

Implementing a vision of PME for the future requires both testing and varied approaches that remain grounded in the seminal vision. One participant noted that desired outcomes can be affected by technology. For example, "remote [learning] may be good for instruction, [but] maybe not as good for building relationships." This led participants to discuss the cost requirements of distance learning. While both groups agreed that distance learning was deceptively costly, individual opinions differed regarding the value of distance learning. Some stated that skilled faculty can transfer concepts into the online learning platform and

⁴⁰ One participant noted they were willing to risk approximately 30 students (the average class size) while experimenting with JPME design and curriculum but did not want to risk an entire year of students.

acknowledged that while doing so is expensive, it is also effective. Another participant disagreed and said,

online [learning] works well for knowledge transmission, [but] less well for knowledge application [. It is] adequate for building community in the confines of the class, but does nothing to build long-term, formative relationships.

Following the final discussion, each group identified three major methods of implementing ways to achieve PME objectives. Group A focused on talent management and bureaucratic hurdles to conducting research as takeaways in the discussion about implementation (See Appendix B for the specific language). The first action item was to build an engaged student body. The group's second implementation strategy requirement focused on improving the recruitment and retention of faculty. Further, some expressed a need to improve the perceptions of PME among civilians working within academia. The final implementation strategy chosen by this group was to identify and reduce bureaucratic hurdles that hinder faculty from engaging in research while teaching at PME institutions.

By comparison, Group B identified four execution areas with an emphasis on experimentation and implementation (see Appendix B). Group B identified three action items: improving expectation management and communication across diverse stakeholders, increasing stability and consistency in funding and resourcing, and considering potential themes within the context of generating learning outcomes. These three implementation strategies inform the implementation aspect: engaging in continuous experimentation through dynamic national security changes and while acknowledging risks. Finally, Group B noted that all takeaways about implementation must be considered with the broader context of generating learning outcomes for students.

Chapter 4. Findings and Conclusion

Following the workshop, we identified several key themes raised by participants across the sessions and between groups. The overarching takeaway identified by the team was that participants generally agreed on PME's goals but tended to disagree on the means for attaining them. These goals centered on preparing leaders for current and future national security scenarios through communication, joint warfighting strategies, and critical thinking skills. Both groups agreed that PME graduates require preparation for a wide range of future positions and leadership roles and that the transfer to outcomes-based education will play a strong role shaping the perspectives of future warfighters. Additionally, both groups shared similar expected requirements, with a strong focus on building stable resources, improving advocacy, and identifying clear expectations and responsibilities. All participants mentioned the challenges that arise from reporting to the diverse constituency of stakeholders issuing requirements to PME institutions. However, the discussions between the groups differed considerably in the afternoon session regarding PME capabilities and implementation. While Group A largely focused on talent management, Group B focused on outcomes, experimentation, and evaluation.

Opportunities and Barriers

The above discussion highlights several opportunities and barriers to PME's continued evolution in order to prepare students for ever-evolving military roles. Opportunities include using the general agreement on objectives to create clear documentation, leveraging technology adopted during the pandemic, and building a diverse student body. By agreeing on these listed objectives and requirements, PME stakeholders may be able to further establish critical thinking, communication, and joint warfighting objectives. By leveraging technology, PME institutions could maintain and broaden education throughout and after the COVID-19 pandemic. These new tools and curriculum designs may be further iterated and expanded to provide diverse programs for students who desire greater flexibility from their PME programs. Additionally, both groups listed the diverse student body—across services, civilian positions, and national origin—as an asset that can serve to expand the perspectives, networking opportunities, and understanding of all PME students.

Participants noted that several barriers complicate their ability to achieve existing and future PME requirements. The most-discussed roadblocks during the workshop included difficulties navigating bureaucracy, obtaining stable funding, and balancing the varied demands of talent management. Due to the diverse constituencies involved with PME (provosts, joint chiefs, commandants, members of Congress, etc.), the institutions appear to be placed in the position where varied and numerous stakeholders expect frequent adjustments and redirections for the

program, which complicates curriculum development. Curriculum development could be further complicated by the lack of stable funding to develop, maintain, and evaluate programs. Participants expressed an interest in hiring additional faculty and support staff for new topics that could help navigate the growing complexity of national security issues. This includes hiring 1) online-learning experts to facilitate an expanding library of distance learning programs and 2) faculty experienced in discussing emerging topics in national security strategies. Such an emphasis on faculty skills places emphasis on the topics of talent management for both students and staff, and the importance of selecting the best roles for PME faculty to provide instruction on topics and skills that students are likely to face following graduation. These opportunities and barriers highlight unique opportunities for PME's growth as it evolves in a post-COVID environment.

Appendix A. Workshop Facilitation Guide

Figure A.1 displays the facilitation guide that the small group leaders used to lead the discussion throughout the day of this workshop.

Figure A.1. Workshop Facilitation Guide: A Virtual Workshop on Imagining the Future of JPME in the United States

April 21, 2022	
Pre-workshop time for participants to check Zoom connections	8:30 AM–9:00 AM
Welcome and Overview <ul style="list-style-type: none"> • Purpose of this event: Bring together stakeholders to discuss opportunities for the future of Joint Professional Military Education (JPME) in the U.S. • How will we do this? Bottom-up approach in small groups with 8-10 people, facilitated by a senior RAND researcher • Key Questions we will answer: <ul style="list-style-type: none"> – What are the most important objectives of JPME? – What is required to fulfill these objectives? – What current capabilities are necessary for JPME to fulfill these objectives? – How do we implement current and future capabilities? • What is the outcome? A RAND Report which outlines where there are opportunities for JPME, pending sufficient funding • At the end of the day, a leader elected from each group will give all participants a 10 minute out-brief 	9:00 AM–9:45 AM
Review Norms <ul style="list-style-type: none"> • The goal is to brainstorm, discuss, prioritize issues, and reach consensus. • Request that everyone keep their cameras on during sessions • If you need to step away, please turn your cameras off and mute yourself • There will be a 20-minute break around 11 AM, 30-minute lunch at noon, and another 20-minute break at 1:30 PM • Be respectful, inclusive regardless of rank, minimize use of electronics • Discuss “ELMO” (Enough Let’s Move On) • Mention “Parking Lot” for ideas that you will revisit later. Notetakers will make these in their notes. • Ask each person to introduce themselves: Name and current position 	9:45 AM–10:00 AM

<p style="text-align: center;">Morning Session: Objectives and Requirements</p> <ul style="list-style-type: none"> • <i>Brainstorm:</i> What are the top three objectives of JPME institutions? <ul style="list-style-type: none"> – If asked for more specifics, tell participants their answers can be broad (e.g., military-wide) or specific (e.g., NDU-specific) • <i>Identify/Discuss:</i> Facilitator will ask the following follow-up questions: <ul style="list-style-type: none"> – Where are there similarities in objectives that we discussed? – Where are there differences between the objectives we discussed? – Is there anything that we missed? • <i>Build Consensus:</i> Facilitator will identify 2-3 objectives that most people appear to agree on, then ask participants to discuss them. <ul style="list-style-type: none"> – Do these objectives seem useful to build on today? Why or why not? – If no consensus is reached, consider holding a quick vote within the group to prioritize objectives that were discussed. <ul style="list-style-type: none"> Ask: If we had to prioritize only three objectives, which ones would you focus on? (Go around the Zoom call for answers) • BREAK (~20 minutes) <ul style="list-style-type: none"> – During the break, the notetaker will use the Facilitator Template to record the key areas of consensus as it relates to your group’s discussion of objectives. – Then, the notetaker will confer with the facilitator in a separate Teams chat. – Finally, the facilitator will enter these bullets into the chat box for reference. • <i>Brainstorm:</i> Now that we have identified 2-3 key objectives, let’s move to what is required to meet these objectives. <ul style="list-style-type: none"> – Ask: What types of resources are required to meet these objectives? These resources may include faculty, staff, facilities, technology, or other inputs. • <i>Identify/Discuss:</i> Facilitator will ask about resources required for Objectives #1, #2, and #3 as necessary. The goal is to bring the group to resources that <i>relate to multiple</i> objectives. <ul style="list-style-type: none"> – For Objective #1, facilitator will ask follow-up questions: <ul style="list-style-type: none"> Where are similar resources needed? Where are there differences? Is there anything that we missed? – For Objective #2, facilitator will ask follow-up questions: <ul style="list-style-type: none"> Where are similar resources needed? Where are there differences? Is there anything that we missed? – For Objective #3, facilitator will ask follow-up questions: <ul style="list-style-type: none"> Where are similar resources needed? Where are there differences? Is there anything that we missed? • <i>Build Consensus:</i> Facilitator will identify 2-3 key resources that are common across each objective, then ask participants to discuss them. <ul style="list-style-type: none"> – Are these the key resources that we should prioritize? – If no consensus is reached, consider holding a quick vote within the group to prioritize types of resources. <ul style="list-style-type: none"> Ask: If we had to prioritize only three types of resources, which ones would you focus on? (Go around the Zoom call for answers) 	10:00 AM–12:00 PM
<p style="text-align: center;">Lunch</p> <ul style="list-style-type: none"> • During the break, the notetaker will use the Facilitator Template to record the key areas of consensus as it relates to your group’s discussion of requirement. • Then, the notetaker will confer with the facilitator in a separate Teams chat. • Finally, the facilitator will enter these bullets into the chatbox for reference. 	12:00 PM–12:30 PM

<p style="text-align: center;">Afternoon Session: Current Capabilities and Implementation</p> <ul style="list-style-type: none"> • <i>Recap:</i> In the morning session, we focused on three key objectives for JPME (verbally list them to the group) and identified several common resources required to meet these objectives (verbally list them to the group). <ul style="list-style-type: none"> – Now we’re going to discuss the capabilities that already exist • <i>Brainstorm:</i> What types of current capabilities exist that would allow us to achieve the three objectives we are focused on? (Remind participant of the three objectives again.) • <i>Identify/Discuss:</i> Facilitator will ask follow-up questions: <ul style="list-style-type: none"> – Are there any current capabilities that could be leveraged to meet some these objectives? – Are there current capabilities unique to a particular institution? – Is there anything that we missed? • <i>Build Consensus:</i> Facilitator will identify 2-3 objectives that most people appear to agree on, then ask participants to discuss them. <ul style="list-style-type: none"> – Do these objectives seem useful to build on today? Why or why not? – If no consensus is reached, consider holding a quick vote within the group to prioritize objectives that were discussed. <p style="margin-left: 40px;">Ask: If we had to prioritize only three objectives, which ones would you focus on? (Go around the Zoom call for answers)</p> • BREAK (~20 Minutes) <ul style="list-style-type: none"> – During the break, the notetaker will use the Facilitator Template to record the key areas of consensus as it relates to your group’s discussion of current capabilities. – Then, the notetaker will confer with the facilitator in a separate Teams chat. – Finally, the facilitator will enter these bullets into the chatbox for reference. • Recap: <ul style="list-style-type: none"> – We’ve identified three objectives: Objectives #1, #2, and #3. – We then discussed what was required to meet these objectives, focusing on Resources #1, #2, and #3. – Next, we looked at what capabilities already exist. Our conversation focused on Capabilities #1, #2, and #3. • <i>Brainstorm:</i> Now, we are going to discuss implementation. Ask these questions: <ul style="list-style-type: none"> – How would you leverage current capabilities to achieve a particular objective or objectives? – What additional requirements would you need to achieve a particular objective or objectives that currently doesn’t exist? • <i>Identify/Discuss:</i> Facilitator will ask group members probing questions, but largely let the conversation emerge organically. The goal is to nudge participants toward consensus. Some questions you may ask to reach consensus: <ul style="list-style-type: none"> – Is that like what Person X said? – How is that like what others have raised? – Where do you see overlap with what you said to other priorities? – How would one assess the implementation of these capabilities? • <i>Build Consensus:</i> Facilitator will focus the group on 2-3 themes that relate to implementation. 	<p>12:30 PM–2:30 PM</p>
<p style="text-align: center;">Short Break</p> <ul style="list-style-type: none"> • During the break, the notetaker will use the Facilitator Template to record the key areas of consensus as it relates to your group’s discussion of themes about implementation. • Then, the notetaker will confer with the facilitator in a separate Teams chat. • Finally, the facilitator will enter these bullets into the chat box for reference. <p>RAND facilitators will meet separately via a Teams chat to fill out a single PowerPoint template for the final out-brief.</p>	<p>2:30 PM–3:00 PM</p>

<p style="text-align: center;">Final Out-Brief/Discussion</p> <ul style="list-style-type: none"> • <i>Marek</i>: Welcomes everyone together and then asks each group leader to present their key takeaways <ul style="list-style-type: none"> – Round robin in which each group facilitator presents their key takeaways (~5 minutes/each) – Marek will screenshare the PowerPoint • After each group leader finishes, there will be an opportunity for people to ask questions and discuss. 	<p>3:00 PM–4:00 PM</p>
<p style="text-align: center;">Workshop Concludes/Farewell</p> <ul style="list-style-type: none"> • <i>K. Jack Riley</i>: Keynote Remarks (4:00 PM–9:30 PM) 	<p>4:00 PM–4:30 PM</p>

Appendix B. Slides

This appendix displays the final slides that summarize takeaways from discussions that occurred within the two workshop groups (labeled “Group A” or “Group B”). For each group, the slides answered four questions:

1. What are the top objectives for JPME?
2. What resources are required to meet these objectives?
3. What current capabilities exist to achieve these objectives?
4. What key themes were discussed about implementation?

The facilitators for each workshop group presented these takeaways during the final out-brief session of the day, followed by a short discussion.

Figure B.1. Workshop Discussion



U.S. Air Force photo by Kemberly Groue

Figure B.2. Group Takeaways from the Workshop

Takeaways from Group A

- What are the top objectives for JPME?

For the overarching purpose of better warfighting, outthinking/outcompeting our adversaries, top objectives include:

- Habit of mind to prepare for the unknown/uncertainty: inquisitiveness, critical thinking, thinking strategically, broadened perspectives, (e.g., tactical to operational, joint warfighting, international and interagency, the whole of national power)
 - Communication, ability to persuade, advise, influence
 - Preparation of Leaders for current & future roles/responsibilities in warfighting & national security
- What resources are required to meet these objectives?
 - Authorities, responsibilities, resources, a bit of autonomy, students and faculty selected, and integration with follow-on experiences of students

Takeaways from Group A

- What current capabilities exist to achieve these objectives?
 - Quality faculty which bridge depth with breadth of expertise
 - Better-prepared students
 - Better balance between outcomes- and content-foci among stakeholder
- What key themes were discussed about implementation?
 - Selection of quality students
 - Recruitment and retention of faculty and perceptions of scholars
 - Bureaucratic hurdles toward doing research

Takeaways from Group B

- What are the top objectives for JPME?
 - Prepare graduates to apply critical and strategic thinking skills to become skilled in joint warfighting while allowing for the tailoring of skill development to the different JPME institutional missions and across levels of the joint educational continuum of learning.
 - Serve as thought leaders on joint, interagency, intergovernmental, and multinational (JIIM) matters over the long-term
 - Promote joint acculturation by developing leaders with the ability to operate and understand requirements across the JIIM spectrum
- What resources are required to meet these objectives?
 - JPME advocacy
 - Stable and sufficient funding
 - Clear expectations and priorities for JPME

Takeaways from Group B

- What current capabilities exist to achieve these objectives?
 - We have leveraged technology through (i.e. MS Teams), but we need to reassess implementation to generate consistent and desirable outcomes
 - In-person classes and remote classes can both be effective as long as they are built with technology in mind tied to outcomes
 - Openness by PME institutions that are agile, so that the programs can adjust quickly, and to continue collaboration between institutions and other stakeholders
- What key themes were discussed about implementation?
 - Expectation management and communications for multiple stakeholders
 - Stability and consistency in funding and resourcing
 - Continuous experimentation in light of dynamic national security changes and risk considerations
 - All themes must be considered within the context of generating learning outcomes

Discussion

Abbreviations

COCOM	Combatant Command
COVID-19	coronavirus disease 2019
DoD	U.S. Department of Defense
ICAF	Industrial College of the Armed Forces
JIIM	joint, interagency, intergovernmental, and multinational
JPME	joint professional military education
NDU	National Defense University
PME	professional military education

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Professional military education (PME) institutions prepare leaders for complex future conflicts. Recently, PME institutions experienced a sudden shift to distance learning during the coronavirus disease (COVID-19) pandemic. Studies show that pandemic-related disruptions have significantly affected military policies and readiness and negatively affected education for both students and educators across all education levels.

To discuss objectives, requirements, capabilities, and implementation options for the continued evolution of PME programs, the RAND National Security Research Division led a one-day joint PME workshop with participants from various PME institutions, J7 Directorate for Joint Force Development, RAND researchers, and others. In this report, the authors summarize the results of the workshop to identify areas for change following the COVID-19 pandemic.

Participants generally agreed on PME's goals but tended to disagree on the means for attaining them. Consensus centered on providing PME students with communication skills, joint warfighting strategies, and critical thinking skills and preparing these future leaders for an unknown national security environment.

These results highlight several opportunities for PME moving forward, including utilizing the general agreement on objectives to build clear documentation, leveraging technology during the pandemic, and building a diverse student body. The results also bring forward several possible barriers that may complicate the implementation of PME objectives. These roadblocks, which received the largest discussion during the workshop, included difficulties navigating bureaucracy, obtaining stable funding, and balancing the varied demands of talent management.

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