

JOINT PROFESSIONAL MILITARY EDUCATION (JPME) AND SERVICE SPECIFIC PME – A FRAMEWORK TO ADDRESS THE OUTCOME DEFICITS

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*“Live as if you were to die tomorrow, learn as if you
were to live forever.”*

– Mahatma Gandhi

Abstract

PME lays the foundation of intellectual component of warrior culture and propels the military leaders towards professional mastery. The military power can be maximized if employed in an integrated manner - jointness being the key. The edifice of ‘Jointness’ rests on three pillars viz. Joint Warfare Doctrines, Joint Operations and Joint Training. The curriculum in training institutions, both joint and service specific, is designed such that the focus at lower levels is to enhance the depth of knowledge, while at the senior levels, the emphasis shifts to broaden the horizon – enhance the breadth of knowledge. The current dynamic situation, both on the Northern and Western fronts and the challenges of internal security situation, inevitably draw attention to the adequacy of PME or deficit therein and the need to re-align, to address the concerns.

Effective Service Specific PME is a major strength, proved beyond doubt during innumerable operations and deployment on the

frontlines. However, inadequate jointness, heavy lean on the tactics, lack of leadership training beyond the initial career, lack of study of military campaigns, absence of yearning for research and reading; are some of the deficits that need immediate attention. Though, the overall effectiveness of the PME is fairly satisfactory, the hierarchy at the apex level have recognised the inevitability to re-align the PME to meet the future challenges – a work in progress. The Indian military is already planning to set up a Joint Training Command (JTC) to achieve greater synergy. At the Army level, the mandate of PME has been assigned to the ARTRAC. Several Army formations, have taken the lead to inculcate and encourage the spirit of inquiry, research on futuristic technologies, ideas and innovations. The initiatives include the Command Availability Model for Training (CAM-T), research and publication by officers on a military subject and R&D projects in collaboration with trade.

In the process of re-alignment, certain niche areas viz. PGMs, AI, Robotics, Quantum Computing, Cyber Technology, Mobile Communication Engineering and Enterprise Resource Management should receive enhanced focus. Further, the IA, IN and IAF need to articulate ‘recommended reading lists’ to channelise the thoughts of military commanders, at all levels. Besides, increased emphasis on joint training, joint war games and joint exercise be laid. To jointly safeguard our National Security Interests with confidence, we must ‘Train Jointly to Operate Jointly’.

Professional Military Education (PME) lays the foundation of intellectual component of warrior culture and propels military leaders towards professional mastery, a state that changes as individuals continue to gain knowledge and broaden horizon. It entails separate, yet inextricably linked constituents i.e. Training and Education. The education imparts the military leaders with analytical abilities, critical thinking, evaluating differing perspectives, forming and communicating cogent views, ability to take calculated decisions in the fog of uncertainties and deftly tackle the unforeseen events. The development of Intangible traits viz. thinking about the problem, analysis and finding solutions where none exist– creation of

Professional Wisdom; is achieved through education. The training, on the other hand, develops tangible traits, which encompasses individual, collective and institutional training with the focus centered on development of combat abilities and skills, required to accomplish the assigned tasks with proficiency. *The PME essentially complements the individual training, operational experience and self-development to produce professionally competent leaders.*

The Foundational Overview

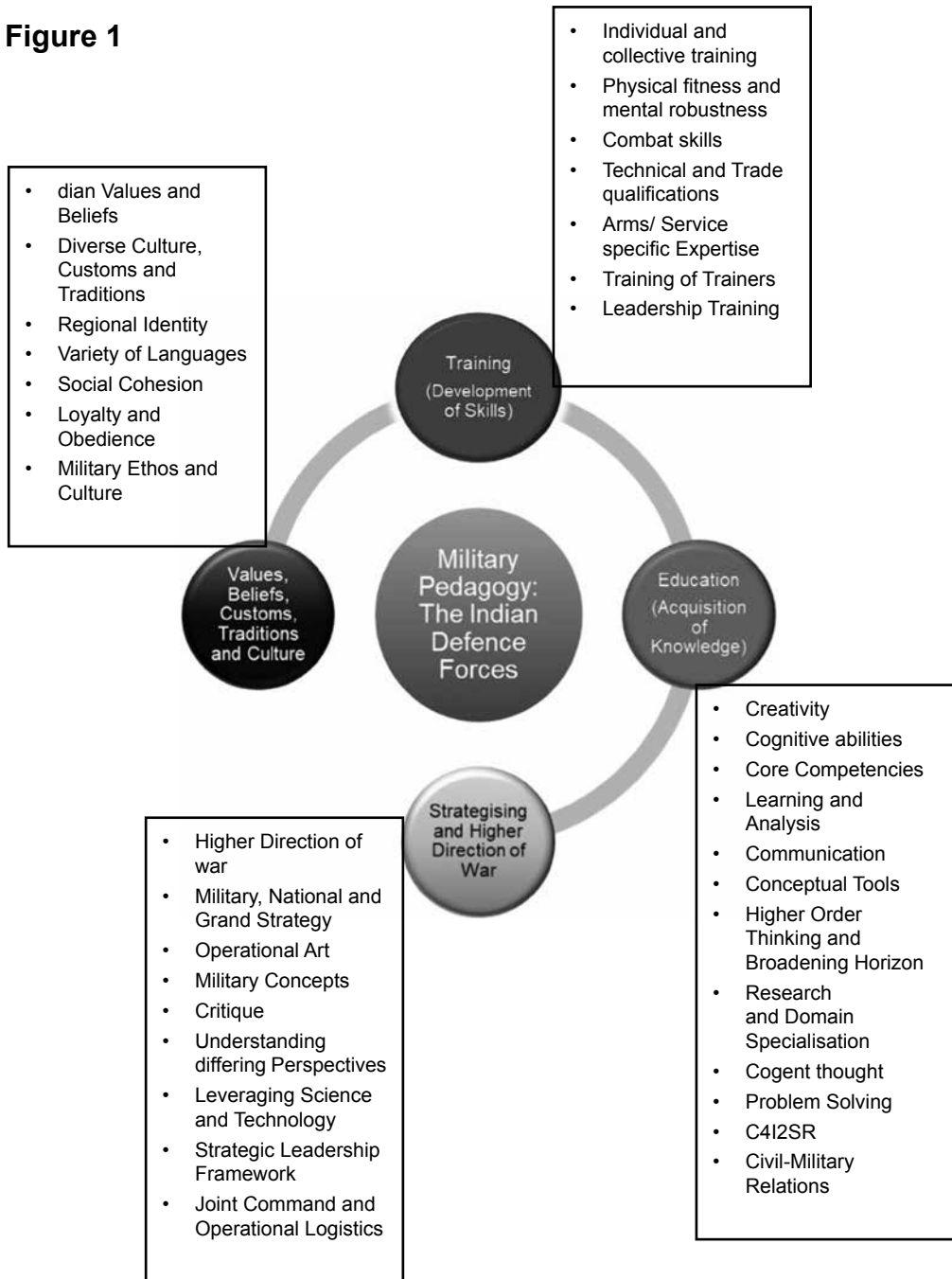
The JPME, which is a need of the hour, aims to constantly engage through knowledge at Tactical, Operational and Strategic levels to build intellect in military leaders and develop joint processes for service synergy.

Military Pedagogy. Military pedagogy is the basis of teaching and learning followed in the military training institutions. It is a military science that looks into the philosophies, conceptions, visions, doctrines, objectives, approaches and technologies of military education and training.

Pedagogy Styles in Vogue. Indian Army (IA), Indian Navy (IN) and Indian Air Force (IAF) follow different service specific pedagogy styles. The basics of pedagogy are, however, common and designed to suit the requirements of Defence Forces. The fundamental pedagogy style, which reflects the Indian values, beliefs and cultural practices which further narrow the thoughts and action, is discussed hereunder: -

Military Pedagogy: The Indian Context

Figure 1



Source: Author

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The Enabling Institutions. The enabling institutions and levels of PME to create professional mastery, are discussed hereunder: -

Table 1

Level of Service & PME Applicable	Service PME(SPME)/ Institutions			Joint PME (JPME)/ Institutions	Remarks
	IA	IN	IAF		
Service - 25 years' and beyond (Operational & Strategic Level, Institutionalised Training)	Think Tanks			National Defence College (NDC), Advanced Professional Program for Public Administration (APPPA), Fellowship at Think Tanks, Study Leave, Orientation Courses, Core Programme	Joint training coordinated by HQ IDS through Joint Training Committee (JTC).
	Centre for Land Warfare Studies (CLAWS)	National Maritime Foundation (NMF)	Centre for Air Power Studies (CAPS)		
15 – 25 years' service (Operational Level, Institutionalised Training))	Army War College (AWC)	Naval War College (NWC)	College of Air Warfare (CAW)	Higher Defence Management Course (HDMC), Lead Service War Colleges*, Study Leave, Fellowships at Think Tanks, Sponsored Study Programmes	* Limited vacancies allotted to sister services. Focus on jointness.
	Joint Faculty exists				
8 – 15 years' service (Senior Tactical Level, Institutionalised Training))	Army War College, Service Specific Institutions	Technical Management Course	Advanced Professional Knowledge Course	Defence Services' Staff College (DSSC), Technical Staff Officers' Course (TSOC)	Jointness emphasised in Staff Colleges.
5 – 8 years' service (Tactical Level, Institutionalised Training))	Infantry School, HAWS, CIJWS, Service Specific Institutions	Long Course	Basic Professional Knowledge Course	-	Domain specialisation. Focus to enhance depth of knowledge.

Young Officers (YO) - upto 5 years' service (Basic Military Training (BMT))	Service specific institutions. (Combat training, basic tactics, weapon operation and administration of a sub-unit.)			-	Jointness lacking. Focus on individual service.
	32 category 'A' & 47 category 'B' establishments of IA; and many institutions of IN and IAF provide training at all levels.				
Pre-commission Training (PCT)	IMA, OTA, CTWs	Naval Academy	AF Academy	NDA	Focus on individual service, less NDA.

Source: Author

The Felt Need

The 'Nature of War' is enduring but its character remains dynamic. The future conflicts, characterised by the pre-dominance of information, cyber and space assets; and fought in multiple domains; require own forces to be well poised, to jointly execute operations harder, quicker and better synergised than our competitors; while, simultaneously maintaining optimal readiness to combat the challenges of counter terrorism (CT) operations. Besides, the short and swift future wars demand versatile, adaptable and rapidly deployable Strike forces. Currently, the operational dynamism, both on the Northern and Western fronts and the challenges of internal security situation, inevitably draw attention to the adequacy of PME or deficits therein and the need to re-align.

If the modern war is 'All Nation's Approach – a National Effort', then the PME should not remain limited only to the Defence forces, but look beyond to include defence partners in Para-military Forces, industry, academia, inter-agencies and ministerial participation.

The PME, though single service based, yet should provide the joint learning. The curriculum formulated by the lead service should enhance the spirit of jointness among the participating military leaders.

Development of Joint Forces, Joint Warfare Doctrine, National Security Strategy and Policy, Technology and Capability should be central to the PME. The services need to be integrated institutionally, organisationally, intellectually and technically to fight future wars, which will increasingly require the armed forces to fight jointly. Thus, joint critical, creative and strategic thinking is vital.

Development of joint backbone curricula, combined with targeted approach and measures with online options for self-study is inevitable, to bring jointness in thought, action and application.

Joint problem solving, factoring in emerging technological trends and disruptive technology effects, is inevitable to leverage modern technology and remain competitive in the foreseeable future. JPME at the tactical, operational and strategic levels would progressively result in enhanced integration in planning, execution of operations, logistics support functions, better interoperability and sharing of assets.

With lean budgets and vigorous thrust to economise the revenue expenditure, efficient resource management is implicit. While efforts to streamline equipment, materials, transport and services' management have been reasonably successful; optimal efficiency is achievable by implementation of Enterprise Resource Management (ERM).

The Searching Questions

The system of PME has progressively evolved, the changes being incremental in nature, rather than transformational. To enable an assessment of effectiveness of PME, certain questions emerge, as discussed hereunder:-

- (a) Do adequate joint institutions exist for promoting jointness at various levels, among military commanders of the three services?
- (b) Is the existing system able to develop the desired level of Core Competencies for joint operations?
- (c) Are any specific joint programmes in vogue, which commit to self-directed learning skills at various levels of command?

- (d) Does current system build rapport and cooperation within & outside service and prepare military leaders to effectively execute command tasks and achieve objectives at the tactical and operational levels?
- (e) Does JPME at the NDC, CDM and the War Colleges, sufficiently facilitate the transition from tactical & operational levels to the strategic level?
- (f) Are leaders encouraged to study military campaigns, to gain knowledge and learn from the history to build competencies to tune in the competitive and technologically complex environment?
- (g) Do research projects focus on the joint problem solving and pragmatic subjects of military value or dwell in the realm of abstract academic issues, having limited application in the defence forces?
- (h) Does the present system of education build leadership and joint warfighting skills which support and promote organisational purpose and direction?

Identifying the Deficits in the Current System of PME

The military leaders must train for certainty and educate for uncertainty. While at lower levels, the degree of certainty is high; the situation reverses with exponential increase in degree of ambiguity at higher levels. Stimulating intellectual abilities, gaining domain expertise, nourishing conceptual clarity and flexibility; widening the horizon; identifying, understanding and adroitly managing macro issues with strategic ramifications; ought to be emphasised in the PME. Towards that end, the JPME and SPME entail numerous training activities, structured courses and educational programmes. A candid assessment of the current system with specific focus on identifying the deficits, is discussed hereunder:-

- (a) The joint training at the junior (tactical) and middle (senior tactical) levels is insufficient due to limited number of armed forces'

training institutions (AFTIs) - a work in progress. Without joint training at tactical levels, insufficient joint structures and lack of core competencies for joint operations; optimal joint application of force is difficult. Further, limited joint assignments & exercises and inadequate career diversity, result in exceptional depth in service specific knowledge but inadequate breadth - narrow horizon.

(b) Specific joint programmes / modules for self-directed learning at various levels of command do not exist. Reading, analytical thinking, critique, etc, deserve higher emphasis in units, to develop intellectual edge and superior decision making. The lack of habits of mind, affects the quality of research by the combat leaders, as they grow in service.

(c) The structured PME at staff colleges, CDM, war colleges and the NDC, affords ample opportunity to military commanders to build rapport with colleagues, within & outside the service and civilian attendees. PME at the CDM and War colleges is pitched at the tactical and operational levels; and prepares them to execute command tasks at these levels. However, the nuanced understanding of the Higher Direction of War is difficult to achieve. The transition from tactical and operational level to the Strategic level is, thus, only partially facilitated.

(d) At NDC, the highest level of structured course, that offers a six-stage curriculum the two subjects viz. 'Strategy & Structures for National Security' and 'Science & Technology' that are crucial for the military leaders for assimilating the concepts on higher direction of war, are weighted disproportionately low. This results in inadequate exposure of senior leadership to strategic studies, thus inhibiting the provision of qualitative advice at the strategic level.

(e) At lower and mid-levels, the current system of PME leans disproportionately on the tactical aspects of operations in all stages of professional development; while limited exposure at

operational level is afforded to officers at the DSSC, TSOC and SC courses.

(f) Military campaigns, as part of the curriculum, exist in none of the premier military institutions, less the Naval War College. The study of major military campaigns is essential to stimulate understanding of the complex dynamics at play and the strategies engaged, besides, building of competencies to leverage competitive technology to outmaneuver the adversary.

(g) The strategic communication and perception management are introduced as part of PME at the mid-level, which is an impediment to requisite skilling at the formative stage.

(h) The research projects in the staff & war colleges and the CDM cover a very wide range of electives, to include military issues, subjects having national and international ramifications and abstract academic aspects. However, the quality of research needs substantive improvement. Besides, the electives lack focus on subjects that promote joint problem solving and pragmatic subjects of military value.

(j) Leadership skills development at the junior and mid-levels is aptly emphasised. While the IAF and IN already have the leadership programmes for junior and mid-levels, the IA has established a FACMIL (Faculty of Military Leadership) at the Army War College. However, formal leadership training at the NDC is not included in the curriculum.

(k) The current system does not adequately support the development of 'Joint Warfighting Skills' to include joint doctrine, joint strategy, joint planning, joint operations, joint logistics and sharing of assets. In simple terms, the true jointness in 'Thought, Action and Application' and congruity in Policy, Strategy and Doctrine, remains to be achieved.

(l) Reputed ‘Think Tanks’ viz. CLAWS, CENJOWS, CAPS, NMF, Observer Research Foundation (ORF), MP-IDSA and USI offer fellowships and provide immense exposure at National and International levels; and afford the fellows, opportunities to interact with the industry, civil administration and research organisations at the apex level. However, we need to leverage these ‘Centres of Excellence’ more towards joint warfare, National Security Strategy and policy formulation.

(m) Powerhouses of technology are the big multi-national companies and unfortunately the Defence Forces do not have any immersive presence, with the exception of IN, in Naval R&D. The current system of Project Management Teams (PMTs) merely assists in coordination between the lead directorate and the vendor, which is grossly inadequate.

(n) Education of military leaders on ‘cyber strategy and operations’, both from offensive and defensive perspectives, faces several challenges. The War & Staff Colleges and the NDC need to accord enhanced focus on the use of cyber capabilities as offensive weapon for shaping the battlefield for conventional operations and counter-measures against cyber threats to own networks and critical military assets.

The *ibid* deficits underpin the need to re-align our PME, to achieve the desired team goals.

Re-aligning the PME – Where do we stand

The hierarchy at the service HQ and Integrated HQ have realised the inevitability to re-align the PME, in view of the ‘Felt Need’. While some progress has already been made, the work continues in the right earnest.

Indian Defence University (IDU). Conceived in 1967, the necessity of IDU was realised post Operation Vijay (1999) and the Government laid the foundation, at Gurugram in 2013. The bill is currently awaiting passage in the Parliament. The IDU, broadly envisioned as a teaching

and affiliating University to promote higher education and research in National Security Studies, Defence Technology and allied areas; would serve as a 'Think Tank' contributing to policy formulation and create competencies related to national security issues.

Promoting the JPME. The creation of Integrated Theatre Commands (ITCs) is imminent, as the roll out of Air Defence and Maritime Commands is well set, with final validation exercise in full swing. The action to achieve enhanced joint training is being pursued with a plan to set up a Joint Training Command (JTC). Besides, all training policies and methodologies, including foreign training will be handled by a single agency.

Actions at the Service HQ Level. The mandate for PME in the IA has been assigned to the ARTRAC, as the single Nodal agency. Enhanced effectiveness of training, better coordination, pursuance of research in-line with the organisational objectives, utilisation of facilities offered by civil institutions and avoidance of duplication of efforts are some of the benefits that have already begun to be realised, slowly moving towards 'Tri Services Joint Training Command'.

Focus at the Formation Level

(a) **Ideas and Innovations.** Several Army formations, have taken lead to inculcate and encourage the spirit of inquiry, research on contemporary technologies, ideas and innovations. The initiatives include the Command Availability Model for Training (CAM-T), research and publication by officers on subjects of military value, formulation of proposals for major R&D projects in contemporary technologies and R&D projects in collaboration with trade having a direct impact on the battlefield. Further, qualified M Tech officers are encouraged to conduct feasibility studies & research on futuristic technologies and platforms.

(b) **The Knowledge Repository.** The web pages of formations, have separate modules that make unclassified

research papers, articles and publications readily available to the military leaders. Besides, the facility to upload research papers, provides tremendous encouragement to write on varied subjects.

Comparative Approach by Various Countries

A wider view of some of the global leaders in their pursuance of the conduct of PME to build the military leadership is revealing, as discussed in subsequent paras.

USA

- (a) **Aim.** To develop strategically minded joint warfighters, who think critically and can creatively apply military power to inform national strategy, conduct globally integrated operations, and fight under conditions of disruptive change.
- (b) **Method / Frame-work:-**
 - (i) Adapt and innovate PME.
 - (ii) Infuse joint context throughout officers' careers.
 - (iii) Leverage joint exercises and develop practical warfighting skills.
 - (iv) Adapt and innovate talent management.
 - (v) Demand and reward academic excellence.
 - (vi) Identify and develop strategists.
- (c) **Intended Outcome:-**
 - (i) Warfighting joint leaders, staff officers and strategists.
 - (ii) Anticipate and lead rapid adaptation and innovation.
 - (iii) Operational to strategic levels warfare.
 - (iv) Execute and adapt strategy through campaigns and operations.

Peoples Republic of China

- (a) **Aim.** To Build and develop military skills required to lead the next level of combat operations.
- (b) **Method / Frame-work:-**
 - (i) Initial focus on skill building.
 - (ii) Tactical and operational training.
 - (iii) Single-service and combined arms tactics training for field grade officers.
 - (iv) Single-service and joint campaigns for senior officers.
 - (v) Training in real combat conditions and Mission-oriented training.
 - (vi) Strategic-level training and joint training at Theatre Commanders' level.
 - (vii) Simulated, networked and force-on-force training.
- (c) **Intended Outcome:-**
 - (i) An expert strategic war fighter who always listens to orders.
 - (ii) Develop a new generation of human talent.
 - (iii) Develop broad traits: -
 - (aa) Political loyalty.
 - (ab) Strategic awareness and skilled in military affairs.
 - (ac) Appropriate military culture.
 - (ad) Adaptive and intangible traits.

Israel

- (a) **Aim.** To shape and empower the professional cadre of Israeli military forces.

- (b) **Method / Frame-work:-**
 - (i) Initial focus on military and leadership skills.
 - (ii) Analyse military battles and history.
 - (iii) Study of strategies and doctrines.
 - (iv) Varied levels of PME at Israel NDC, Command and Staff Colleges.
 - (v) Constant investigation and study of strategic and operational environment.
- (c) **Intended Outcome:-**
 - (i) Develop intellectually high-quality officers.
 - (ii) Mental resilience and leadership.
 - (iii) Command and control.
 - (iv) Application of the combat doctrines.
 - (v) Decision making.

Australia

- (a) **Aim.** To develop mastery in the profession of arms and cultivate an intellectual edge in warfighting.
- (b) **Method / Frame-work.** Divided in three parts: -
 - (i) Developing a future intellectual edge.
 - (ii) JPME continuum – agile and adaptive.
 - (iii) Application of the curricula – outlines processes, structures and initiatives to implement JPME.
 - (iv) JPME conducted at varied levels.
- (c) **Intended Outcome:-**
 - (i) Command, leadership and ethics.
 - (ii) National security policy and strategy.
 - (iii) Joint warfare – planning and execution.
 - (iv) Technology and capability.

India

(a) **Aim.** To optimally synergise training efforts to operate jointly and continuously evolve and maintain capability to do so, in keeping with the principle that “We ought to train as we shall need to fight as we will fight only as we would have been trained”.

(b) **Method / Frame-work:-**

- (i) Focus on combat and leadership skills in PCT and BMT.
- (ii) Single service PME till senior tactical level.
- (iii) JPME at mid and higher levels at Staff Colleges, CDM, War Colleges and NDC.
- (iv) Joint exercises and cross attachments.
- (v) Study of doctrine, strategy and tactics at varied levels of PME.
- (vi) Grand strategy and civil- military fusion at the NDC.

(c) **Intended Outcome:-**

- (i) Strategic awareness and professional competence.
- (ii) Effective command & control and Combat abilities.
- (iii) Military and National Security Strategy.
- (iv) Tangible and intangible qualities.
- (v) Science and technology.
- (vi) Professional military ethics, perception management and civil- military fusion.

Addressing The Outcome Deficits

We Ought to Train as We Shall Need to Fight, as We Will Fight Only as We Would Have Been Trained.

“Joint Training Doctrine of Indian Armed Forces”

The multi-domain, complex wars of the future, with battle space extended beyond the land, air and maritime boundaries, opening of virtual fronts like cyber and electromagnetic spectrum, the imminent employment of autonomous lethal platforms and robots based on AI, along with hybrid content; demand a multi-disciplinary approach to military strategy. The future war demands a change in emphasis and urgency. What is needed is an agile and well trained mind, to envision, to prognosticate and propel change. The PME should, therefore, focus to develop military leaders as scholar warriors, armed with leadership traits to include Tangible qualities (combat skills, technical expertise, fitness etc), Command abilities (planning and conduct of operations at Tactical, Operational and Strategic level, as applicable; and visualise how a military situation may evolve in future), Intangible traits (creativity, leadership, communication, analytical abilities, cogent thinking, action in the absence of orders, leading from the front, quick decision making, pride in military customs and traditions, loyalty and integrity) and Strategic Awareness (recognise own role in the system, understand the bigger picture, possess breadth of knowledge – broad horizon and a coherent worldview). Besides, the commanders should be able to effectively carry out joint planning and seamless execution of joint operations. Recommendations to develop professional mastery, enhance the intellectual edge and promote jointness through JPME are discussed in subsequent paras.

Blend Realism and Intellectual Ability. The re-aligned curricula should facilitate to develop the military leaders as a 'Blend of Realism and high Intellectual Ability'. Combination of 'Ground Observation and Theory', to develop cogent thinking and enhanced operational effectiveness, must be emphasised.

Joint Training for Joint Operations. 'Train Together to Operate Together' is the mantra to maximise synergy in the future wars. Enhancing the number of joint exercises, increasing vacancies for sister services in War Colleges, cross attachments, joint planning of operations, sharing of logistics and training assets; should be immediately considered. Inter-Service Camaraderie, operational & technological orientation, sense of collective ownership and jointness in thought would be noticeable within

2-3 years of vigorous implementation of JPME at all levels. The Joint Training is a fundamental requirement to achieve jointness in operations. However, we require synergetic efforts across the Defence Forces to establish joint structures, processes and curricula to implement the JPME, which will result in cultural and intellectual shift from the single service norm.

Wargames and Exercises. The objective of wargames and exercises should be to explore innovative ideas on doctrine, concepts, strategy and tactics; and not merely validating the existing operational plans. The game should include not only combat commanders, but logisticians as well, to share their perceptions and value judgments. Besides, there is a requirement to evolve a methodology to assess the 'Measure of Effectiveness' of war games and exercises.

Soldier Scientists. Development of technical officers as 'Soldier Scientists' with core competencies in niche areas viz. PGMs, AI, Robotics, Quantum Computing, Cyber Technology, Mobile Communication Engineering, need to be focused upon. Besides, long attachments of qualified technical officers to the big multi-national defence companies would facilitate development of joint enabling futuristic technologies. Adequate focus on the enterprise resource management (ERM) for better management of military logistics and assets is recommended. Further, the institution of 'Idea Acceptance Awards' is recommended to encourage innovation and R&D.

The Research and Outcome Validation. The 'Electives' for fellowships and study leave in Think Tanks, premier military and civilian institutions; should be focused on Science & Technology, Military & National Security Strategy or fields that contribute to achieve the organisational goals. Besides, suitable methodology for validation of research outcome be formulated and plagiarism, in all forms, dissuaded.

Research Guides and Master Research Assistants. For research in War Colleges, CDM and NDC; the 'subject scholars' should be appointed as Guides and honorarium paid from a Central Defence Research Corpus, created under the aegis of HQ IDS. The corpus should also

facilitate purchase of the material for literature review. Further, the concept of 'Master Research Assistant' is recommended for providing professional assistance.

The Knowledge Bank. Setting up of 'Knowledge Bank' or 'Digitised Libraries', which are networked and accessible to all military-men, can give a fillip to the distance learning with both, push (e-mailing of reading material and modules) and pull (accessing digital libraries) models on digital devices.

Recommended Professional Reading List. HQ IDS and the Training Commands should articulate and publish 'Recommended Professional Reading List(s) to cover History & Heritage, Military Leaders, Military and National Security Strategy, Operational Art, Disruptive Technologies etc, to guide the military leaders in self-learning.

Accreditation to Renowned Universities. The military training establishments should be affiliated to the institutions of Global repute. The affiliation of management oriented military colleges viz. CDM and CMM Jabalpur to IIMs; the engineering institutions viz. MCTE, CME and MCEME to IITs; the NDC, War Colleges and Staff Colleges to IDU, will add value to the military education gained by the military commanders during service.

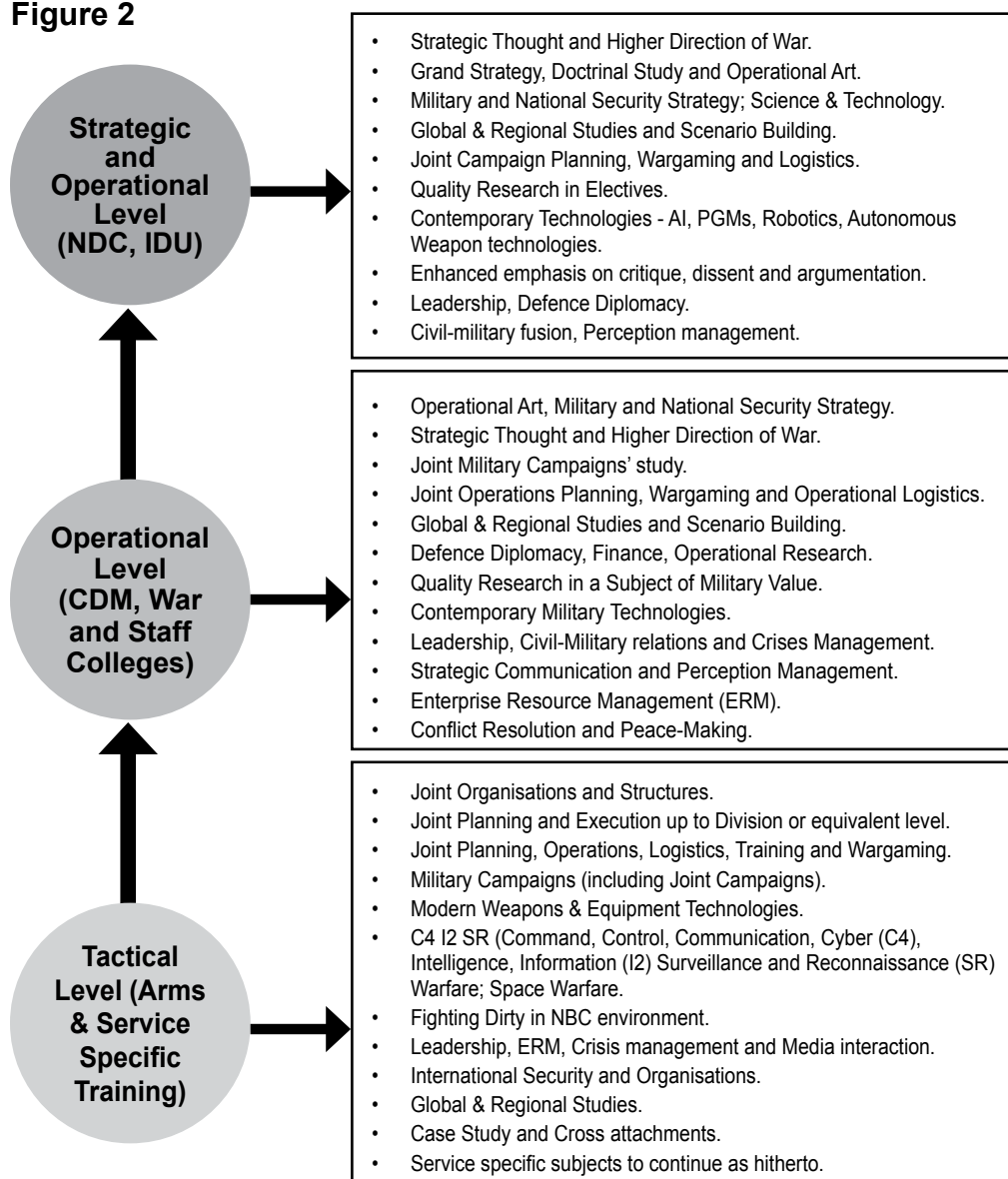
Education in Cyber Domain. The Staff & War Colleges and NDC need to formulate curricula to educate the military leaders to understand the cyber & information environment and the core concepts critical to the cyber domain. Commanders, across the board, should have fundamental understanding of cyber capabilities in both offensive and defensive operations.

Habits of Mind. The JPME should focus to inculcate the habits of the mind to include reading, critical thinking and cognitive ability; to outthink and outlast our adversaries in war amidst fog of uncertainty and disruptive change.

Designing the Curriculum: A Broad Framework

Creating strategic awareness, intellectual ability and mental agility that we require can be achieved by a balanced combination of education, training, exercises and rigorous practical application. Towards that end, a broad framework is suggested hereunder:-

Figure 2



Evaluation System. A system of evaluation, based on feedback, is essential to gauge the effectiveness of PME and determine how well the system as a whole will operate. Constant assessment, adjustment, modification and mid-course correction should continue as an ongoing process, in consultation with the environment, to address creatively our critical operational requirements.

Conclusion

Effectiveness of the current system of PME is fairly satisfactory; yet, the scope for further refinement and re-alignment exists. Change is the only constant and we must be ready to adapt to the changing requirements. Broad horizon, creativity, analytical thinking, appetite for calculated risks, quick decision making, agility of mind and strategic awareness; are the desired attributes of successful military leaders. Well balanced education and training during peace would keep the military leaders primed; and fetch us dividends in war. As the Integrated Theatre Commands are imminent, an increase in number of joint exercises, cross attachment of officers & troops in inter-service HQ, formations/ units and joint training from the lowest level; would strengthen the 'Spirit of Jointness', in thought, action and application. The re-alignment of PME, already in progress, must be pursued with speed and in right earnest. To jointly safeguard our National Security Interests with confidence, we must 'Train Jointly to Operate Jointly'.

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