AUSTRALIAN DEFENCE FORCE

Learning

Edition 3

ADDP 7.0
Edition 1, 2006
Edition 2, 2011

ADF-P-7 *Learning*
Edition 3, 2021

Sponsor:
Chief of Joint Capabilities

Developer:
Lessons and Doctrine Directorate

Publishers:
Directorate of Information, Graphics and eResources
Lessons and Doctrine Directorate

ADF PHILOSOPHICAL DOCTRINE

Learning

7 Series | Training and Education

Edition 3

Australian Defence Force – Philosophical – 7 *Learning*, Edition 3 is issued for use by the Australian Defence Force and is effective forthwith. This publication supersedes Australian Defence Doctrine Publication 7.0, Edition 2.

Angus J Campbell, AO, DSC
General
Chief of the Defence Force
Department of Defence
CANBERRA ACT 2600
31 August 2021

Preface

Military doctrine describes fundamental principles that guide actions by armed forces to achieve their objectives. While authoritative, doctrine requires judgement in application.

Australian Defence Force (ADF) doctrine describes principles that guide the employment and operational effectiveness of a joint force. ADF doctrine publications are designed to concisely describe these principles, and so promote coordinated actions in support of missions and the commander's intent. ADF doctrine publications are written at several levels—capstone, philosophical, integration and application.

The content of this publication has been derived from general principles and doctrine contained in other relevant publications, Defence manuals, and allied publications and agreements. Every opportunity should be taken by users of this publication to examine its contents for applicability and currency. The Lessons and Doctrine Directorate invites assistance from you, the reader, to improve this publication. Please report any deficiencies, errors or potential amendments.

Aim. The aim of ADF-P-7 *Learning* is to detail Defence's philosophy of learning. The key elements of training, education, learning and development enable the learning organisation to meet current and future Defence capability requirements.

Audience. This publication is for use by planners and participants in training, education, learning and development. This ensures staff and force elements meet current and future Defence capability outputs.

Scope. This publication provides philosophical-level doctrine on the nature and purpose of learning within the Defence Groups and Services, and their associated people, functions and outputs to meet capability requirements.

ADF-P-7 *Learning* Edition 3 contains significant changes from Edition 2, including:

a.   expansion of the scope to holistic learning, incorporating training, education, learning and development

b.   incorporation of the *One Defence* philosophy and applicability to all Groups and Services within Defence

c.   inclusion of the Systems Approach to Defence Learning and the One Defence Capability Model.

Pulling together as one is how we will achieve our competitive advantage and build greater national defence power. Our people must have the right training and understand how their part contributes to the ultimate end goal.

General Angus J Campbell, AO, DSC
Chief of the Defence Force
February 2019

Amendments

Proposals to amend ADF-P-7 *Learning* may be sent to:

Deputy Director Doctrine
Lessons and Doctrine Directorate
Capability Interoperability Test and Evaluation Branch
Russell Offices
PO Box 7909 | Canberra BC | ACT 2610

Lessons and Doctrine Directorate

Amendment number	Chapter(s)	Amendment	Effected date

Doctrine publication hierarchy

The hierarchy of ADF doctrine, and the latest electronic version of all ADF doctrine publications, is available on:

> *Defence Protected Network ADF Doctrine Library
> (http://drnet/vcdf/ADF-Doctrine)*

> and

> *Defence Secret Network ADF Doctrine Library
> (http://collab.defence.gov.au/vcdf/org/FDD-FID-MSCD/CITEB/
> doctrine/SitePages/home.aspx)*

Contents

List of figures

Chapter 1 – Learning for capability

Executive summary

- Learning in Defence is a critical enabler to the Defence mission.

- Individual learning and collective training opportunities develop the Defence workforce.

- Defence learning responds to capability, preparedness, and operational needs and requirements.

- Defence learning incorporates training, education, learning and development. These activities and experiences promote advancement in knowledge, skills, attitudes and behaviours.

The importance of Defence learning

Warfighting is the most complex, challenging, violent and dynamic of human endeavours. In supporting the Defence mission to defend Australia and its national interests to advance Australia's security and prosperity, our personnel are required to operate in volatile, uncertain, complex and ambiguous environments. This demands agility, adaptability, problem-solving, critical thinking and resilience in time-poor, high-pressure situations. Our people and their individual and collective capabilities have increasingly become the distinguishing advantage over potential competitors. Learning is a critical enabler to the Defence mission and develops personnel to achieve a capability edge and empowers response with credible force when required.

Workforce skills are built to meet current and emerging capability requirements. Understanding the operational environment is vital. Personal development facilitates contribution to disciplined team membership on operations or in support of operations. This is equally applicable to all personnel working for the Department of Defence.

Learning influences how Defence personnel think, act and respond. Defence learning includes foundational knowledge, application, integration, learning to learn, awareness of self and others, and ethical and moral dimensions. Learning fosters adaptability, creativity and critical thinking, enabling personnel to exercise judgement, assess risk and make decisions in increasingly complex environments.

Agreed values and behaviours are core foundations of Defence operations. Learning includes cognitive, physical, social, emotional, ethical and cultural components. Values and behaviours are reinforced in learning programs and activities, applied consistently in the work place and role-modelled to set and reinforce the expected standard.

Innovative and inquiring minds are better equipped to adapt to fast-changing technological, tactical and strategic environments. This requires an ability to objectively seek and identify credible information, accurately recognise cues and relationships, quickly make sense of information and respond appropriately. These attributes contribute to an agile force that acts faster than a competitor to analyse information and make decisions.

The role of Defence learning

Defence learning encompasses holistic training, education, learning and development for individuals, teams and force elements. Knowledge, skills, attitudes and behaviour development enables successful conduct and sustainment of military operations. A systematic approach to learning develops military capabilities that align with Government direction and strategic guidance.

Defence considers the mind a weapon and learning a force multiplier. Human intellect drives innovation, technical advances and better use of scarce resources. To maintain military superiority over a competitor or situation, Defence empowers learners to better use current and future systems and to develop an intellectual edge.

One Defence philosophy

One Defence creates a unified and adaptive organisation driven by its strategy and clearly led by its centre. *One Defence* empowers its people through a culture that exemplifies Defence Values and a strong sense of shared purpose. It includes:

a.   all of the Groups and Services within Defence, and their associated people, functions and outputs

b.   an end-to-end approach to capability development, with managers who imbue clear authority and accountability for delivering organisational requirements supported by integrated capability delivery

c.   a professional workforce with a strong, high-performance culture at its core.

Defence learning prepares the enterprise to conduct operations. In addition to directly preparing force elements for deployment, Defence learning denies our competitors intellectual seams to exploit.

The *One Defence* approach to learning achieves effective and efficient outcomes by rationalising learning infrastructure and resources. Innovation and continuous improvement are pursued to ensure an adaptive Defence learning environment. This includes enterprise-wide learning:

a.   technologies and information management systems

b.   policy and procedures

c.   governance arrangements.

The management and delivery of learning brings a collegiate, strategic approach across Defence. Critical examination and rationalisation delivers an expansion of shared infrastructure, governance and learning systems.

Defence learning components and outcomes

Individual learning and collective training contribute to Defence learning. International engagement programs and combined exercises deliver networking opportunities, promote cultural understanding and provide the chance to benchmark our performance against coalition partners. These activities prepare for operational contingencies, provide mission specific training and develop skills to sustain the Defence enterprise.

Learning in Defence follows a systematic progression from recruitment to individual learning and collective training. This progressive experience prepares individuals and force elements for the dangers, complexity and friction of the operational environment.

Individual learning

Individual learning encompasses an individual's combined training, education, learning and development. It occurs through formal and informal training and educational programs. It takes place within or external to Defence. Individual learning aims to provide our people the required knowledge, skills, attitudes and behaviours to perform a job role. Learning also prepares individuals to work in a team—as a member or as a leader.

Individual learning, including formal indoctrination and vocation-specific training, evaluation and assessment, validates the qualifications, competencies, licences and expertise in the individual's trade or stream. Learning is essential to personal career development.

Collective training

Collective training is a fundamental input to capability. It comprises team training following individual learning. Collective training involves creating, replicating or simulating the workplace or operational conditions under which tasks are performed to achieve group outcomes.

Collective training ranges from small team activities to multinational task force exercises. Where appropriate, participants from other government departments, non-governmental organisations, and multinational forces and organisations participate. This enriches the training experience through the replication of real-world operational environment complexity. Similarly,

collective training with regional neighbours and allied forces enables Defence members to hone their skills and to work in a combined force. Collective training enables Defence to build relationships and interoperability with security partners.

Collective training provides Defence valuable opportunities to evaluate the ability to meet strategic requirements detailed within the Defence Planning Guidance, and therefore validate the joint force-in-being. Beyond Service collective training, joint collective training replicates the experience and context for operational contingencies in complex multi-domain environments.

Collective training inherently includes evaluation and assessment to provide validation of capability and preparedness. Successful achievement of collective training outcomes is fundamental to the capability life cycle and the Defence Preparedness Management System. Training, evaluation and assessment ensures:

a. new capabilities meet operational requirements

b. force element contingency response is in accordance with directed readiness levels

c. standing Defence plans and processes are validated.

Australian Defence Force. Service-generated capabilities, including combat-ready forces, are the responsibility of Service Chiefs. The Chiefs of Navy, Army and Air Force are accountable to the Chief of the Defence Force to raise, train and sustain their Service force elements. Service entry requirements, learning and career continua implementation meet Service-specific and relevant whole-of-Defence skill requirements.

Australian Public Service. Within the Australian Public Service (APS), learning enables staff application of necessary skills and knowledge to produce deliverables. Learning is a shared responsibility between the APS employee and their supervisor (whether APS or Australian Defence Force) and should promote career progression and development.

Joint, common and rationalised training

The joint nature of Defence operations aligned with *One Defence* sees learning efficiencies realised through:

a. Joint training, which is delivered to personnel from two or more Groups and Services to meet the proficiencies required for employment in the joint environment.

b. Common training, which delivers individual training with learning outcomes common to a number of Groups and Services.

c. Rationalised training, which is an approach applied to single-Service, joint and common individual learning where efficiencies are achieved through delivery to two or more Groups and Services through a shared service approach.

Joint professional military education

Defence members undertake joint professional military education (JPME) throughout their careers. The JPME continuum provides a framework for Defence professional learning. The continuum identifies four core study areas: Command, Leadership and Ethics; Joint Warfare; Technology and Capability; and National Security, Policy and Strategy. It defines the learning levels and personal attributes and behaviours. The JPME continuum provides a framework to develop mastery in the profession of arms. Professional mastery is a critical component in achieving an intellectual edge for Defence. It is realised through learning that produces leaders, thinkers and practitioners with an intellectual advantage. Developing this intellectual edge coheres the military and civilian elements of Defence into a unified force able to develop policy, build strategy, generate forces and execute operations.

The JPME continuum is managed by the Australian Defence College. The continuum comprises a broad array of formal career courses and flexible learning opportunities provided by the Services, internal and external civilian courses, and other offerings. Defence education and training activities are aligned with the JPME continuum as a component of holistic learning.

Preparedness training

Preparedness is the measurement of how ready and sustainable forces are to undertake military operations. Preparedness incorporates tasks that help shape the strategic environment and contributes to engendering the support of the wider Defence community, as well as upholding warfighting abilities.

A Defence element's degree of preparedness (readiness and sustainability) indicates how soon that capability could be committed by Government, for how long and for what purpose. Preparedness training incorporates individual learning and collective training activities to contribute to force generation. It ensures force elements demonstrate the ability to respond to contingencies. The Defence Preparedness Management System is discussed in Chapter 3.

Mission specific training

Mission specific training is training specific to a mission undertaken prior to being certified ready for operations. It incorporates individual learning and collective training focused on the designated operational theatre's unique characteristics.

Conclusion

Defence learning ultimately prepares individuals and force elements to execute and support operations in theatre. When combined, individual learning and collective training ensures Defence meets Government-directed requirements. Individual learning and collective training are mutually supporting activities that contribute to achieving professional mastery.

For the individual, the cumulative outcomes of individual learning and collective training provide progressively more complex knowledge, skills, attitudes and behaviours. These prepare our people for career advancement and the individual's contribution to the broader Defence mission. Ongoing learning occurs in concert with the collective training cycle.

Defence learning is vital. Warfighting is complex, challenging, violent and ever-changing. Defence personnel are required to operate in volatile and ambiguous environments and they are paramount to the defence of Australia and its national interests. The *One Defence* philosophy is foundational to a strong strategic centre and the development of shared learning infrastructure, governance and processes. Integrated individual and collective learning is crucial to Defence learning success as a critical enabler to capability.

Chapter 2 –
Defence as a learning organisation

Executive summary

- Defence as a learning organisation promotes a continuous capacity to adapt and change.

- Defence's learning culture instils professional mastery and individual responsibility for lifelong learning, self-awareness and agility.

- Fostering a learning culture enables individual and team contribution.

Organisational learning

Organisational learning is the collection, analysis and distribution of knowledge for the benefit of the wider organisation. An institution learns by actively observing, identifying, understanding and acting on differences between expected and actual outcomes in a structured manner.

A lesson is knowledge or understanding derived from experience. This includes daily workplace activities, formal learning, exercises or operations. Success and failure both provide valuable learning opportunities; experience may be positive or negative.

The *One Defence* approach to formal organisational learning is the Defence Lessons Program. Sharing observations, insights, lessons identified and lessons learnt promotes organisational learning and improves effectiveness and efficiency to defend Australia and its national interests. A permanent enterprise-level lessons learnt framework ensures Defence actively learns and adapts as part of a continuous improvement culture. Responsibility for the Defence Lessons Program is vested in the Associate Secretary Executive.

Attributes of learning organisations

A learning organisation develops a continuous capacity to adapt and change. Its culture recognises the value of learning and learning's contribution to achieving organisational goals. Employees are encouraged to continuously expand and share their knowledge and skills. A learning organisation instils professional mastery and individual responsibility for lifelong learning, self-awareness and a willingness to transform.

Professional mastery

Defence career structures, performance management processes and collective training activities provide formal—sometimes directed—learning opportunities. These focus on developing specific skills and knowledge, which form an essential part of organisational capability. Experience, innovation, experimentation and informal intervention also deliver many attributes that are valuable contributions to professional development.

Professional mastery is a career progression requirement in Defence. All members should receive clear guidelines about the skills and knowledge expected at each rank or level. These guidelines cover both leadership and management abilities, vocational/technical competence and the individual's contribution to national security.

Lifelong learning

Lifelong learning is a continuous improvement process through conscious investment in professional skill progression. Lifelong learning is integral to meeting the changing professional, technical and behavioural expectations throughout an individual's career. Learning outcomes are aligned to rank, level and career milestones to recognise the requirements and context of each stage.

Learning is not a separate activity from the performance of workplace duties: it is intrinsic to workplace participation. Lifelong learners approach each new experience as a potential learning opportunity and chance to apply their knowledge and skills in a new context, condition or environment. Lifelong integration of experiential and informal learning, formal learning, collective training and personal development maximises professional mastery.

Individual responsibility

Individuals should understand and influence their own professional development and career progression pathways. In partnership with their leaders, proactive individuals take ownership of their learning, seek opportunities to improve performance in their current role and prepare for advancement.

Staff improve their learning autonomy and accountability when empowered to develop and manage their own learning plans. When personnel pursue self-directed development opportunities, they have a higher level of commitment and motivation to achieve.

Self-awareness

Through critical review of personal strengths and weaknesses, learners evaluate their contribution to capability. Self-awareness encourages learners to develop the desire to learn, solve problems and ask questions. By analysing their own knowledge, skills, attitudes and behaviours, learners:

a.   identify their learning needs, as they understand their role in the organisation and the required deliverables

b.   are motivated to learn, when they see purpose and application for their learning

c.   master skills through reflection, gaining a deeper understanding of how principles apply in practice

d.   execute the learned concepts and skills in new situations, increasing competence and adaptability.

The courage to seek feedback promotes self-development. Constructive feedback to subordinates and colleagues facilitates growth. Receiving, acknowledging and acting on advice is essential to learning and building self-awareness. The ability to admit errors, learn lessons and acknowledge areas requiring improvement can be hard. Self-reflection internalises lessons learned, enabling the application of knowledge and skills to new experiences and environments.

Agility in learning

Delivering new capabilities requires skill identification for future roles. Clarifying current expertise levels promotes growth, reshaping, upskilling and reskilling the workforce. Defence continuously assesses and adapts its learning content, methods, exercises and environments. Learning systems, processes and policies require the agility to respond to organisational priorities, technological advances and environmental conditions.

Learners themselves should be willing to adapt to maintain an intellectual edge in new situations and adjust to a fast-changing environment. This is equally applicable when working independently or as part of a team. This often includes the use and understanding of technical advances and systems that deliver large volumes of information from multiple sources.

Building the learning organisation

Leaders at all levels are charged to foster an environment where learning is encouraged and lifelong learning becomes the standard. Peers and leaders serve as positive examples of a disciplined approach to learning, demonstrating they are willing to learn from anyone, at any time, in any place. Senior leaders should recognise and reward subordinates for their commitment to embodying a learning culture and, where appropriate, encourage experimentation and exploration.

Effective leaders turn mistakes into learning opportunities, cultivating open dialogue to discuss lessons identified when errors are made. They recognise, act on and correct mistakes by providing constructive, positive feedback. The learner becomes aware of what they did correctly, has desired behaviours reinforced and identifies areas for improvement.

Strong individual performance is essential to high-achieving organisations. Supervisors should actively seek and identify talent. They should engage with and develop the potential of subordinates to shape and build the workforce. Individualised learning pathways based on performance, potential and aspiration can be achieved by identifying tailored learning and experiential opportunities. This promotes career progression and a deepening of specific skills.

Regular two-way conversations identify learning needs, goals and plans. Supervisors meet capability requirements and career aspirations through negotiated learning plans with staff. Learning plans should be documented, have clearly defined priorities and milestones, and have appropriate time and resources allocated. Learning plans should be regularly reviewed and adjusted.

Controlled conditions conducive to safely managing mistakes reduces errors in the complex environment of Defence operations. This requires appropriate safety measures and constructive, corrective feedback. Open dialogue on the contribution of planning processes and outcomes provides opportunities for learners to reflect upon their performance and internalise new concepts.

Recognising the importance of learning attracts and retains qualified, effective staff. Selecting, valuing and rewarding strong instructors, facilitators, coaches and mentors, assessors and learning managers strengthens Defence's commitment to continuous learning. It builds a stronger Defence organisation.

Conclusion

As an element of national power used to defend Australia and its interests, Defence is one of the largest learning organisations in Australia. The collective contribution of individuals to the Defence mission and national security is achieved through professional mastery and lifelong learning. All personnel are responsible for their own learning, and for the development of those they lead and manage.

Chapter 3 –
Learning in the Defence environment

Executive summary

- The Defence operational environment requires multifaceted approaches to learning for sustainable workforce generation.

- Formal learning integration to established systems supports the acquisition, preparedness and sustainment of Defence outputs.

- Modernised approaches and methods adapted to changing learning demands maximises the opportunities offered by technological advances.

- Academia and industry partnerships are vital contributors to Defence learning.

The unique nature of Defence operations

Preparation for combat

Defence employment may require individuals to operate under conditions that require extraordinary levels of physical strength or endurance, create extreme mental stress, and pose complex moral and ethical conundrums. This may include taking lives or fearing for their own or others' safety.

Gradually increasing the challenges in learning conditions and scenarios builds competence, confidence, self-regulation and resilience. Through experiencing a variety of learning scenarios that approximate combat situations, learners remember key lessons and are able to apply them during the stress and friction of battle.

Learning needs to prepare Defence members for these roles and environments as accurately as possible. Although it is difficult to reproduce the dangers, complexities and frictions of combat environments, good learning design can replicate them.

Learning should be conducted in as safe an environment as possible, commensurate with the required training outcome. Advances in technology provide safer and more realistic learning activities.

Interoperability

Learning prepares Defence staff to work effectively alongside allied forces and Australian and international civilian agencies. Defence is one of many players that may be committed in a whole-of-government crisis response. Other stakeholders may include other government departments and agencies, non-governmental organisations and industry.

Desired interoperability outcomes are two-fold: Defence learning needs to reflect the multidimensional nature of operations; and Defence should prepare alongside security partners. These opportunities develop mutual understanding of roles, tasks, capabilities and limitations, as well as the generation and delivery of effects.

Individual learning and collective training provide the means for individuals from different organisations and nations to communicate effectively. Relationship building, personal contacts and common experiences overcome interoperability issues that might otherwise result in disagreements and misunderstandings.

Learning contribution to capability inputs

The integration of Defence learning

Warfighting, operations and Defence business processes are underpinned by learning. Defence learning is the integration of:

a. Service and Group individual learning, collective training, and personnel and career management systems

b. enterprise-wide learning architecture, including policies, doctrine, systems, procedures, infrastructure, personnel and information technology

c.   joint, interagency and multinational exercises and collective training activities

d.   international engagement activities

e.   Government direction.

When encouraged and supported, learning occurs in multiple locations, both at designated training establishments and in daily workplace activities. This is necessary to achieve force generation and prepare for operations. Force generation is the process of providing suitably trained and equipped forces, and their means of deployment, recovery and sustainment, to meet all current and potential future tasks within required readiness and preparation times. Raising, training and sustaining personnel permits application of specific competencies for effect-focused activities. Force generation is described further in Australian Defence Force – Philosophical – 3 *Campaigns and Operations*.

To meet required Defence outcomes, innovative approaches to learning incorporate modern learning theories, technological advances and cross-agency integration to deliver personnel capability.

Systems Approach to Defence Learning

In the same manner that the military appreciation process underpins operational planning, the Systems Approach to Defence Learning (SADL) supports education and training planning. SADL is the five-phase model applied to learning and development solutions. This model brings consistent processes across Defence to produce cost-effective, results-oriented solutions to existing and new capability requirements. Figure 3.1 illustrates the model.
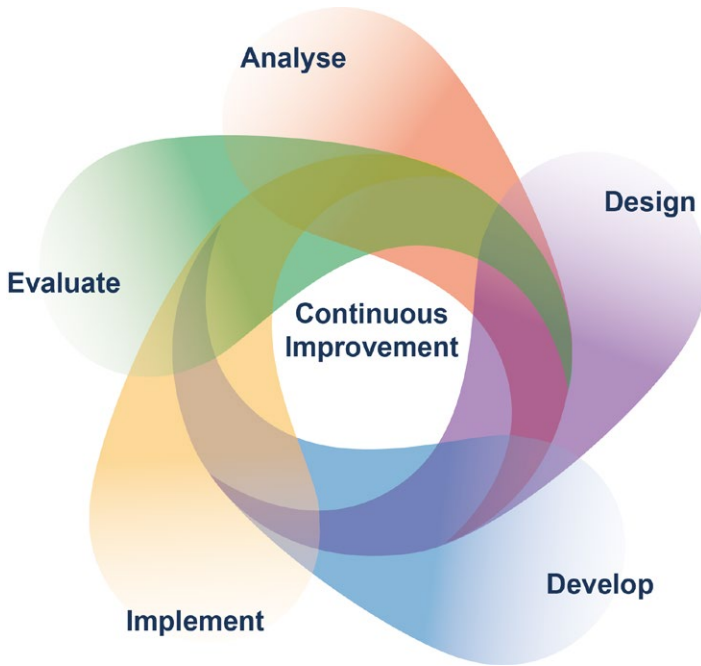
Figure 3.1: Systems Approach to Defence Learning

SADL is not limited to course design. It can apply to all facets of performance improvement, both individual and collective, and can be used to address performance deficiencies. The resulting solution may take several forms, such as a job aid, job or equipment modification, workplace mentoring or formal course. More information can be found in the Defence Enterprise Learning Policy.

One Defence Capability Model

The One Defence Capability Model (ODCM) is a core business process that underpins the Defence mission. It represents a capability system's whole of life, from initial identification of a need to disposal. The ODCM is a joint responsibility of the respective capability manager and lead delivery group. Figure 3.2 depicts the ODCM's phases.

Figure 3.2: One Defence Capability Model phases

Learning considerations are intrinsic components of each ODCM stage to inform the fundamental inputs to capability. SADL identifies the necessary learning infrastructure to deliver, operate and sustain the capability.

Defence Preparedness Management System

Preparedness measures force readiness and sustainability to undertake military operations. Defence preparedness management is a complex process centred on training regimes and delivery of effects.

The Chief of the Defence Force Preparedness Directive (CPD) articulates the preparedness posture to meet Government requirements. Learning systems and processes support the defined preparedness posture. The CPD assigns tasks and responsibilities to capability managers and enabling groups. This ensures Defence capability is maintained at optimum sustainable preparedness levels within available resources.

The Defence Preparedness Management System expresses the relationship between individual learning, collective training and strategic guidance. It assists Defence members to understand how their individual and force element output directly contributes to Defence capability.

Application of learning in Defence

Where appropriate, Defence learning enhances learning structures by maximising emerging technologies and alternate learning strategies. Learners can be provided tools, resources and programs adapted to their specific preferences, delivered how and when it suits them.

Technology, when used appropriately, offers opportunities to improve outcomes, provide a safer learning environment and deliver learning through more efficient, effective and engaging means. For consistency and efficiency, enterprise-wide technologies are used.

Blended learning. Blended learning is a mixture of differing methods, usually face-to-face delivery combined with eLearning. It enables learners to demonstrate competence by a variety of means. Well-designed blended learning adapts delivery to needs and desired outcomes. Using innovative learning methods, materials and technologies can provide increased accessibility, participation, achievement and effectiveness.

Distributed learning. Distributed learning offers opportunities for learners to attain skills and knowledge regardless of their location. It is particularly advantageous for Defence with its widely dispersed learner population. Learning can occur regardless of facilitator, learner and content locations. Advances in technology enable greater flexibility for dispersed training audiences or those operating in different environmental domains. Technology may also offer advantages in terms of cost effectiveness, flexibility and accessibility.

Learner-centric learning. Learners are more engaged and enthusiastic about learning when methods are adjusted to their individual styles and preferences. The learner-centric model tailors learning to delivery for individuals, rather than defaulting to a 'one-size-fits-all' approach. Content is personalised to the student and capability requirements, encouraging learners to follow their curiosity to develop professionally. Supervisors and instructors recognise personnel needs and provide opportunities to inspire investigation and drive their own education. Learners make connections between prior knowledge and newly presented material at their own pace. This model empowers active problem-solving through questioning, contextual understanding and ingenuity.

Instruction and facilitation

Instruction and facilitation are distinctly different methods to impart learning. Instruction is the direct teaching of knowledge to a passive learner, with the instructor controlling what is taught, how and when. Learners are required to adapt their own learning style to gain new skills and knowledge. Facilitation encourages thought and proactivity in learning. Facilitators create a collaborative environment to embrace prior knowledge and learning style. They act as guides, encouraging knowledge sharing by and with the active learner, often in syndicate format.

Although instruction is suited to some content, Defence learning environments should use facilitation to promote self-directed learning where appropriate. Through facilitation, learners build on prior knowledge and apply it to new situations. Facilitation provides the opportunity to test knowledge and skills in a safe environment and instigate change in workplace behaviour. Facilitation is particularly useful in collective training, where personnel apply individual, specialist skills in a real-world situation as part of a team.

Coaching and mentoring

Coaching and mentoring enhance learning through personnel-centric methods. Mentoring is a long-term informal association based on mutual trust and respect. The mentor normally has firsthand experience of the mentee's line of work and aims to develop the mentee's skills relevant to current and future employment. The mentee usually asks the questions, tapping into the mentor's experience. Coaching is a structured and formal approach for a short period of time. The coach does not require experience in the same field, and the process aims to improve career performance. The coach asks thought-provoking questions to guide the learner's thinking and recognition.

Both processes empower personnel to work independently using learned skills, while guiding further development. Mentoring and coaching provide a support system to manage current and future job expectations and an interactive learning environment to engender on-the-job and career confidence.

Command and supervisory responsibility to provide coaching and mentoring support promotes learning. It can be a formal pairing of individuals or informal guidance and role modelling, can occur within or across workplaces, and throughout a person's career.

Learning technologies

Defence operates in an environment of rapid technological change and actively exploits technology to operational advantage. Understanding and responding to emerging capability requires new and enhanced skills, while advances in technology present significant opportunities for Defence learning.

Learning technology can be expensive, both initially and in through-life costs, and is considered for its contribution to achieving the desired learning outcomes. An assessment of complete life cycle costs is necessary when considering a learning technology solution.

Simulation

The term 'simulation' is used in Defence to mean the replication of a system or process. It applies to a wide group of tools, techniques and technologies, ranging from calculative models, part task training devices and operational decision support aids through to high-fidelity representations of Defence operational capabilities and environments. Simulation can be used to enhance professional education, planning, exercise rehearsal, analysis and experimentation. Simulation plays an important role in Defence learning.

Simulation is used to create realistic conditions under which skills can be targeted and practised in isolation or concurrently. It may be undertaken to varying scales and complexities, and range from individual learning to collective training. When applied to Defence learning environments, simulation offers a practical range of repeatable, efficient, safe and secure learning options. Notably, it provides cost-effective, lower risk alternatives to conduct progressively complex, joint, multinational and organisational learning. These outcomes may not be available due to safety considerations, budgetary constraints, or insufficient personnel or equipment availability.

Innovation

Innovation is a fundamental part of developing and maintaining Defence learning to meet current needs and adapt to future requirements. Technological advances will often drive innovation, but in learning the application of new methods and cognitive science is just as important. Academia, industry and other military organisations are key sources of innovation and play an important role in enabling Defence exploitation of technological advances, methods and science to deliver improved effectiveness and efficiency.

Relationships with academia and industry

Academia and industry are ever more important partners as the methods and technology used by Defence increase in complexity and cost. Industry is recognised as a fundamental input to capability. In the learning context, academia and industry significantly contribute by providing training, education, learning, research and development solutions and services. This maintains, progresses and reshapes the Defence workforce to meet current and future needs. In return, Defence is a substantial contributor to the Australian economy through procurement and provision of exceptional talent to the Australian job market.

Early stages of the capability life cycle are a key phase for the learning partnership between Defence, academia and industry. This enables development and embedding of adaptive learning systems—inclusive of emerging technologies—into new capabilities. Developing people to think critically, promote innovative thought, and hone leadership and management acumen creates a capable, agile and potent fighting force equipped to exploit grey-zone influence. This is key to developing the intellectual edge.

Defence grows strong, productive partnerships with academia and industry by sharing knowledge and expertise to meet a common goal. This supports leading edge national innovation to realise the following achievements:

a.   Partnerships with tertiary institutions across Australia to deliver academic services to Defence personnel strengthens the growth of leading research in a multitude of areas across Defence industry. In turn, this raises the level of critical and innovative thought nationwide.

b.   As one of Australia's leading Registered Training Organisations, Defence fosters engagement with federal and state government bodies to align learning and assessment practices with industry standards and to drive best practice. It further ensures that Defence personnel are equipped with transferrable skills that foster a learning Defence industry and nation.

c.   Partnerships with academia and industry create recruitment and development opportunities to enhance the intellectual edge. A greater depth of knowledge, skills, experience and personal attributes delivers capability and learning. As a key contributor to Australia's national

learning endeavour, Defence supports whole-of-government initiatives to promote skilling the Australian workforce.

d. The Total Workforce System provides Defence personnel flexibility to transition between Defence, industry and academia. Veterans respected for their knowledge, skills, attitudes and behaviours are adaptable to new environments.

Conclusion

Learning in the Defence environment supports the unique nature of military operations. It is an environment that develops warfighters to operate in inherently dangerous situations. It relies upon a well-developed, continuous improvement systems approach to learning that delivers adaptable, agile and decisive personnel to perform in dynamic, sometimes life-threatening, environments. The Defence learning environment employs leading edge emerging and disruptive technologies that enhance informed, time-sensitive decisions. This harnesses a geographically dispersed, mobile work force to create opportunity and strategic advantage in theatre. It is a continuous learning system throughout an individual's career, and instils self-driven learning behaviour. The learning environment fosters an individual's desire to take up new skills and readily apply them in a practical sense and as a future facilitator, coach and mentor. A positive learning culture promotes holistic development and accessibility. Defence is a learning organisation that achieves global best standards through research, development, application and review.

The collaborative partnerships between Defence, academia and industry postures Australia to develop an intellectual edge of a world class standard. As a small island nation Defence enterprise, strength is drawn from the collaboration of key partnerships to deliver a resilient, sustainable and secure fighting force. This approach ensures an agile, capable Defence workforce to meet Government-directed tasks to defend Australia and its national interests.

Glossary

The source for approved Defence terms, definitions and abbreviations is the Australian Defence Glossary (ADG), available on the Defence Protected Network at http://adg.dpe.protected.mil.au/. Note: The ADG is updated periodically and should be consulted to review any amendments to the data in this glossary.

Terms and definitions

analyse phase

In the context of the Systems Approach to Defence Learning (SADL), it is the phase in which the required organisational performance is defined, any performance gap identified and the most appropriate intervention specified.

capability

The power to achieve a desired operational effect in a nominated environment within a specified time, and to sustain that effect for a designated period.

Note: In a military context, capability is achieved by developing a force structure appropriately prepared for a range of military operations.

collective training

A fundamental input to capability (FIC), which provides the team training following-on from prerequisite individual training in the personnel FIC that enables Defence capability to be optimised to deliver government outputs.

common training

> Individual training with common learning outcomes that may be provided to a number of Services and Groups.
>
> Note: Includes common courses or modules delivered through a variety of training solutions.

Defence learning

> The holistic training, education, learning and development of individuals, teams and force elements to develop the knowledge, skills, and behaviours to enable Defence to successfully conduct military operations.

Defence Preparedness Management System

> Designed to ensure the effectiveness of Defence's response to government requirements.
>
> Note: It is a system of systems that allows for the simultaneous management of demands on finite resources over the short, medium and long term.

design phase

> In the context of the Systems Approach to Defence Learning (SADL), it is the phase in which the best options for implementing the learning intervention are selected and designed.

develop phase

> In the context of the Systems Approach to Defence Learning (SADL), it is the phase in which the materials and equipment required to implement the learning intervention are prepared and tested.

development

> The growth or realisation of a person's ability through conscious or unconscious learning.

education

In a military context, provides individuals with the enabling skills, knowledge and attitudes necessary to undertake military tasks and includes activities which aim at developing communication, thinking and decision-making skills.

evaluate phase

In the context of the Systems Approach to Defence Learning (SADL), it is the phase in which the learning intervention is measured for its effectiveness in addressing the organisational requirement.

evaluation

A systematic, objective assessment of the appropriateness, effectiveness or efficiency of an initiative, policy, project, service, function or operation.

force element

A component of a unit, a unit, or an association of units having common prime objectives and activities.

force generation

The process of providing suitably trained and equipped forces, and their means of deployment, recovery and sustainment to meet all current and potential future tasks, within required readiness and preparation times.

implement phase

In the context of the Systems Approach to Defence Learning (SADL), it is the phase in which the learning intervention is implemented in the workplace or learning environment.

individual learning

The combined training, education, learning and development of an individual to achieve the required knowledge, skills, attitudes and behaviours to perform a job role.

interoperability

The ability of systems, units or forces to act together to provide services to or from, or exchange information with partner systems, units and forces.

Note: The three levels of interoperability are integrated, compatible and de-conflicted.

joint training

Training for personnel from two or more Services, including APS, delivered to meet the proficiencies required for employment in the joint environment.

learning

In the Defence context, the combined training, education, learning and development of individuals, teams and force elements to build the knowledge, skills, behaviours, attitudes and values to enable Defence to achieve mission success.

mission specific training

Training specific to a mission undertaken prior to being certified ready for operations.

non-governmental organisation

A private, self-governing, not-for-profit organisation, dedicated to alleviating human suffering; and/or promoting education, health care, economic development, environmental protection, human rights, and conflict resolution; and/or encouraging the establishment of democratic institutions and civil society.

One Defence Capability Model (ODCM)

> An integrated system that ensures Defence capability decisions optimise capability outcomes within resource limitations.

> Note: The One Defence Capability Model comprises four phases; Strategy and Concepts, Risk Mitigation and Requirement Setting, Acquisition, In-Service and Disposal.

operation

> A series of tactical actions with a common unifying purpose, planned and conducted to achieve a strategic or campaign end state or objective within a given time and geographical area.

operational environment

> All the elements, conditions and circumstances which may influence the employment of capabilities and the decisions of the commander during campaigns and operations.

> Note: Its chief characteristics are complexity, instability and persistent threat.

organisational learning

> The collection, analysis and distribution of the knowledge gained from experience for the benefit of the wider organisation.

preparedness

> The measurement of how ready and how sustainable forces are to undertake military operations.

> Note: It describes the combined outcome of readiness and sustainability.

professional mastery

The measure of the ability of Defence members to execute their duties, encompassing:

    a.   their ability to perform these duties in a range of circumstances;

    b.   their self-confidence to act autonomously despite risk and ambiguity; and

    c.   their understanding of the purpose and consequences of their actions.

rationalised training

Involves two or more Services or Groups achieving individual training requirements through a shared service approach.

Note: The shared service model is based upon a customer-supplier agreement where the lead Service or Group is appointed as the Manager of Joint Training.

simulation

A method for implementing a model over time.

Systems Approach to Defence Learning (SADL)

A systems-approach framework within which an organisational requirement can be analysed, and solutions developed and implemented, to meet capability requirements across Defence.

training

A planned process to inculcate and modify knowledge, skills, attitudes and behaviours through a learning experience to achieve effective performance in a specified activity or range of activities.

Shortened forms of words

ADF	Australian Defence Force
APS	Australian Public Service
CPD	Chief of the Defence Force Preparedness Directive
JPME	joint professional military education
ODCM	One Defence Capability Model
SADL	Systems Approach to Defence Learning

Developed by Lessons and Doctrine Directorate