

Learning



U.S. Marine Corps

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FOREWORD

The purpose of this publication is to describe the Marine Corps' learning philosophy and explain why learning is critically important to the profession of arms. While many of the concepts in this publication have been passed on by Marine leaders throughout our history, this publication seeks to formalize them and provide aspirational goals. Learning is an institutional priority and a professional expectation for all Marines. This mentality is key to the Marine Corps becoming a more effective learning organization.

The most important factor in this philosophy is the importance of continuous learning throughout our careers for warfighting. Continuous learning is essential to maneuver warfare because it enables Marines to quickly recognize changing conditions in the battlespace, adapt, and make timely decisions against a thinking enemy. These skills required in war must be learned, developed, and honed over time—if neglected, they quickly atrophy. Marines leverage the art and science of learning, technologies, and learning environments that reflect the changing operational environment to tailor learning and provide each other with constructive feedback. Leaders hold Marines to high professional standards of performance, conduct, and discipline—to include

learning. As Marines rise in rank and position, continuous learning and developing our professional skills are a professional expectation. We must make the most of every learning opportunity, fostering our subordinates' learning while continuing our own.

Continuous learning is important to Marines because of the fundamental nature of war and its ever-changing character. The nature of war carries a combination of fear, uncertainty, ambiguity, chance, horror and, above all, friction that Marines must prepare to counter. Marines must seek out education and training opportunities that simulate these conditions. We must train how we fight. As Marines, we must understand how important learning is and be committed to the principles laid out in this publication. Our professional responsibility—as Marines—is to engage in continuous learning so that we may best support our fellow Marines, our Corps, and our Nation.

A handwritten signature in black ink, appearing to read 'D. H. Berger', with a stylized, cursive script.

D. H. BERGER
General. U.S. Marine Corps
Commandant of the Marine Corps

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Chapter 1

The Nature of Learning

“As a lifetime serial learner, I have found that ordinary people can do the extraordinary who are committed to experiential learning, are intellectually curious, and possess an unquenchable desire to acquire new knowledge . . . this may be our only advantage in the future fight.”¹

—Lorna M. Mahlock

“What you did isn’t as important as what you were thinking.”²

—Alfred M. Gray

“The most important six inches on the battlefield is between your ears.”³

—James N. Mattis

Warfighting is the most complex, challenging, violent, and dynamic human endeavor. The Marine Corps, as the Nation's force-in-readiness, must have the versatility and flexibility to effectively fight—and succeed—in any situation and at any intensity across the full spectrum of conflict, whenever and wherever the Nation calls. To meet these demands, it is critical that Marines recognize that learning has a direct impact on warfighting. Marines who understand the key learning principles and continuously seek opportunities to develop knowledge, skills, and the proper attitudes throughout their careers will develop wisdom that enables success in battle. As Marines, we pass on our wisdom and experiences to the next generation of Marines. For the Marine Corps to remain the United States' force-in-readiness, it is critical that every Marine strengthen and value learning in all facets of Marine Corps culture, learning environments, and leadership development. Learning is a professional responsibility for all Marines at all levels. Marines must develop the habit of continuous learning early in their careers to set the conditions for success in increasing levels of responsibility.

The Marine Corps' learning philosophy seeks to create a culture of continuous learning and professional competence that yields adaptive leaders capable of successfully conducting maneuver warfare in complex, uncertain, and chaotic environments. *Learning* is developing knowledge, skills, and attitudes through study, experience, or instruction. *Learning* includes both training and education.

LEARNING AND COMPETENCE

Learning is developing knowledge, skills, and attitudes through study, experience, or instruction. It is a never-ending progression that includes understanding *why* something is important—the intent of learning. Learning is much more than gathering information or reciting facts; it includes cognitive, physical, social, emotional, ethical, and cultural components. Learning occurs in formal settings (e.g., a schoolhouse or training exercise) and informal settings, such as social, experiential, self-directed, and other ways outside of the classroom. The developing knowledge, skills, and attitudes interact to influence how Marines think, respond, and act.

Learning encompasses both training and education, which are equally important and complementary. A simple explanation of the differences between training and education is that training prepares Marines to deal with the known factors of war (e.g., the importance of good marksmanship), while education prepares Marines to deal with the unknown factors (e.g., effective decision-making in changing circumstances). Training and education are accomplished in different ways, but they are both required—working together—to instill the learning that results in readiness and effectiveness.

The complexity of the modern battlefield and increasing rate of change requires a highly educated force. While different, education and training are inextricably linked. Education denotes study and intellectual development. Training is primarily learning-by-doing. We will not train without the

presence of education; we must not educate without the complementary execution of well-conceived training.⁴

Marines must always seek better ways to learn throughout the entire continuum of training and education. Throughout this publication, the term, *learning* is emphasized; *training* and *education* are used when specifically referring to one or the other. Learning is the overall intended outcome of both training and education.

Marines continuously learn to be ready for the constantly changing and increasing demands of warfare, and the range of missions. As Marine Corps Doctrinal Publication (MCDP) 6, *Command and Control*, explains, “We earn the trust of others by demonstrating competence, a sense of responsibility, loyalty, and self-discipline.”⁵ *Competence* is having sufficient knowledge, judgment, and skills to perform a particular duty, job, or function. Marines improve competencies through formal and informal learning opportunities that develop the required knowledge, skills, and attitudes. Marines learn to address complex problems and develop teamwork wherever they may be, whether in garrison, deployed, or in formal learning centers. Learning enables Marines to think critically, develop judgment, and cultivate a bias for action without waiting to be told what to do. A Marine with knowledge and skills who lacks judgment requires close supervision, which may not be possible in combat conditions. Our Marine Corps ethos demands competence, responsibility, loyalty, and self-discipline as military professionals charged with the defense of the Nation. Learning prepares Marines to exercise initiative within the commander’s intent—constantly seeking to improve, develop mental agility, and deal with changing situations.

THE ROLE OF LEARNING IN WARFIGHTING

Maneuver warfare requires intelligent leaders at all levels who possess a bias for intelligent action.⁶ Success in warfare depends on Marines developing an *intellectual edge* to accurately recognize cues, quickly make sense of information, and respond effectively. This intellectual edge is based on developed knowledge and experience that allows Marines to shape conditions and events to their advantage. Developing fundamental cognitive competencies such as problem framing, mental imaging, critical thinking, analysis, synthesis, reasoning, and problem solving enables Marines to make effective decisions more quickly in time-constrained operational environments, when they often have incomplete, inaccurate, or even contradictory information.⁷

A central tenet of maneuver warfare is attacking the enemy's ability to make decisions and to shift the mental aspects of warfare to the Marines' advantage.⁸ In short, Marines develop an intellectual edge by learning cognitive skills and competencies that enable them to move through the *observe, orient, decide, and act* cycle, often referred to as the OODA loop,⁹ more quickly and effectively than the enemy. The warfighter who recognizes what is happening, adapts to the situation, and then makes effective decisions in the shortest amount of time will typically have an advantage. The OODA loop decision-making cycle is even more important in preparation for future conflicts because as new technologies emerge the rate of change will continue to increase. Therefore, Marines must continuously improve their knowledge and skills by leveraging technology—but never depend upon technology alone as the solution. Marines should *observe*

their environment to recognize key cues, synthesize these cues to *orient* and quickly make sense of the information in order to *decide* and *act*—and then Marines will start the cycle again as they observe the effects of their actions. Importantly, action includes Marines effectively communicating decisions to their teams. Marines use skills such as critical thinking, reasoning, viewing situations from multiple perspectives, and visualizing the battlespace in nonlinear terms to determine the best course of action within operational and tactical time constraints.

Through progressive learning and experience, Marines at all levels develop a bias for action enabled by adaptive, rapid decision-making. The more Marines learn and exercise this bias for action, the better it becomes. Although war games or training exercises approximate the conditions of war, Marines cannot fully replicate the dangers, complexity, emotions, and friction of actual combat. Marines experience a variety of training situations that approximate combat situations so that learned experiences can be remembered and applied during the stresses and friction of combat. Through both direct and indirect experiences, Marines develop a realistic appreciation for what is possible in combat and what is not. The following vignette, based upon a composite of Marines' experiences during Operation Enduring Freedom and Operation Iraqi Freedom, illustrates the importance of learning from previous experiences and adapting to changing conditions.

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A Marine infantry company commander recognized in the first few days of an operation that the enemy was already anticipating and countering the unit's tactics. After assessing the information about the enemy's actions from several of the foot-mobile patrols, the commander concluded that the unit needed improved mobility and firepower to outmaneuver the enemy. The company commander spoke with the battalion commander and recommended attaching gun vehicles from the battalion's weapons company to work directly with the infantry company, providing a highly mobile force with increased firepower to augment the foot patrols. The company commander task-organized the weapons company detachment to provide additional infantry for close-in operations in the area's constricted terrain. This created an entirely different tactical plan for the company based upon observing the enemy's behaviors, adapting, and quickly learning from Marines' experiences.

The highly mobile elements of the company began to appear unexpectedly, surprising enemy units who believed they were attacking only foot-mobile patrols. As the enemy attempted to adjust to the new Marine tactics, the company commander continued to learn and adapt, making adjustments accordingly. For example, when the enemy began trying to set ambushes for the vehicle-mounted elements, the enemy would instead encounter well-planned ambushes by foot-mobile elements at critical junctions along their route of march. The company's mounted and foot-mobile elements continued to appear at critical locations again and again, repeatedly catching the enemy off guard and defeating their tactics.

From the perspective of the enemy, the infantry company had become an overwhelming, omniscient, and omnipresent Marine Corps unit—and the enemy ended all operations in the area. The actual situation was not Marine omnipresence, but rather an attentive and learning-focused Marine company who observed the enemy's behaviors, quickly learned to identify key cues and recognize patterns, and continuously developed new ways to adapt the company's tactics—to outthink and overwhelm an enemy who failed to do the same. The company repeatedly put the enemy on the horns of a dilemma, convincing the enemy that success could not be achieved in the Marine company's area of operations.

Marines need to develop memory skills because Marines—as human beings—increasingly tend to digitally store and search for information rather than committing the information to short-term or long-term memory. Marines cannot always rely on technologies or on being able to digitally search for information during combat due to many reasons, such as time constraints, lack of network access, or the need to minimize electronic signatures. Therefore, Marines at all levels need to train their minds to memorize and recall important information, to reflect upon that knowledge to develop understanding, and to frequently exercise these skills through training so that information can be recalled instinctively during combat.

KEY PRINCIPLES OF LEARNING

Projected future challenges for the Marine Corps include the potential for adversaries to achieve technological equivalence or superiority with the United States. That possibility, coupled with Marines' expeditionary nature, means that the Marine Corps must be a more lethal, *thinking* force that fosters continuous personal and organizational learning based upon enduring principles.

Learning Principles for Marines

- Know yourself and seek self-improvement.
- Be ready and willing to learn.
- Understand why you are learning.
- Provide and receive constructive feedback.
- Learning is purpose-driven to develop professional competence.

The first learning principle is *know yourself and seek self-improvement*.¹⁰ A Marine's mindset, values, ethics, and experiences impact his or her learning, decisions, and actions. "Character, will, and intellect, they're interrelated, and they're inextricably linked. Now character is about moral character, and it's . . . about the capacity and the sense of the rightness of your decision: to be able to make that decision quickly. The will is about having the strength to execute the decision, and the intellect undergirds it all by giving you the context, the intellectual context, to be able to make the decision."¹¹ When Marines are aware of how perspectives and experiences shape their thinking, they can better identify assumptions, biases, and other factors that influence learning. Previous experiences are valuable for many reasons, such as providing personalized references to integrate new knowledge, skills, and experiences into memory. Marines learn and fight effectively despite friction, which has been described as "the force [in war] that makes the apparently easy so difficult."¹² Learning is not always easy; a lack of self-awareness, emotional regulation, humility, time management, or biases can cause friction that makes learning more difficult. Marines overcome this friction and seek self-improvement by better understanding themselves—particularly how our values, ethics, and perspectives influence learning.

The second learning principle is *be ready and willing to learn*. Marines have a professional responsibility to learn throughout their careers and should always seek opportunities to learn. Marines must take an active role in learning, be intellectually curious, and look for new ways to adapt what they have learned to other relevant situations. There are many factors that indicate a

person's willingness and readiness to learn, such as physical, behavioral, social, emotional, and cognitive skills. Additionally, humility, courage, integrity, perseverance, motivation, and discipline are other key qualities that affect learning readiness. Marines increase their learning readiness by having the courage, perseverance, and discipline to continuously seek new professional knowledge, skills, and experiences. A Marine's learning can be facilitated by developing an awareness and understanding of one's own thought processes.¹³ Marines sharpen their intellect by studying *how* to think better and then applying these skills to improve as learners, leaders, and decision makers.

The third learning principle is to ***understand why you are learning***. When Marines understand why they are learning concepts and skills, they better understand the importance of learning to the mission and are more motivated to learn. By understanding the context of learning, Marines are better able to apply concepts and skills to new situations, increasing their competence and adaptability. Unknowns, uncertainty, and disorder will never be eliminated in battle—information may be unclear, misinterpreted, influenced by the enemy, or communications systems may fail. When Marines understand *why* they are learning, it enables them to focus on learning the known and adapting to the unfamiliar more quickly and effectively than the enemy. Out-learning the enemy is, therefore, the key to out-fighting the enemy.

The fourth learning principle is to ***provide and receive constructive feedback***. One cannot learn without feedback—it is critical to learning and developing adaptability. There are two sources of feedback: intrinsic sources (i.e., internal) and extrinsic

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sources (i.e., external). For example, a Marine's own perception that he or she jerked the trigger when shooting a rifle, then adjusting the trigger pull on the next shot, would be an example of using intrinsic feedback. In this same example, extrinsic feedback would be a marksmanship instructor identifying the error to the Marine, then demonstrating the proper trigger pull. Both intrinsic and extrinsic feedback are important for learning and developing adaptability. *Adaptability* is the quality of being able to adjust to new conditions. Marines develop adaptability when they examine a situation, recognize what is happening, and adjust their response to the new conditions. The process of learning is itself a form of adaptive behavior and is an essential element of combat effectiveness.¹⁴ Marines adapt to the operational environment, to changes in their assigned mission, to the enemy's adaptive tactics, and to changes in the civil component. Seeking and responding to feedback are critical to effective adaptation. All Marines can learn to become more adaptive through training, education, and self-study.

The final principle is that ***learning is purpose-driven to develop professional competence***. Learning has specific goals and measurable objectives to gauge progress toward developing competencies. Marine learning is team-oriented so that Marines develop the skills and connections to fight collectively, usually as part of a Marine air-ground task force (MAGTF). Marines are challenged with problems that they tackle as teams in order to learn by doing (i.e., experiential learning) as well as from each other. Marine learning is focused on developing professional competence—developing ready Marines and units capable of operating effectively in changing conditions. Additionally, Marines study history

and world events to be more prepared to respond to new challenges, such as the increase in globalization and competition for resources. Effective warfighters adapt to fluid changes in circumstances in order to deal with complex problems and to proactively shape events for an advantage. Marines sometimes conceptualize the enemy and/or adversary as a single person or group of people, but should be viewed as a complex system. Marines must understand that the enemy and/or adversary may be comprised of many people, systems, and networks, founded on different ideologies. Through purpose-driven learning, Marines develop a variety of competencies to better understand and respond to complex enemy or adversary systems. Learning environments that simulate these complex systems develop Marines' professional competence and encourage adaptation, as well as the ability to outthink enemies and/or adversaries in changing situations.

THE HUMAN DIMENSION AND SCIENCE OF LEARNING

Conflict is a human phenomena; understanding human nature helps Marines to understand conflict. Marines prepare for the complexities of each conflict by studying social, economic, political, cultural, environmental, interpersonal, and intrapersonal factors. These factors often exert a greater influence on the character and outcome of war than do factors, such as the size of

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the enemy formations or their equipment. Marines learn as much as possible about the different human factors, cultures, perspectives, and ideas that impact operations. Developing self-awareness of the personal factors that can detract from learning, such as hubris (i.e., ego) and bias, enables Marines to overcome friction. Marines strive to view situations and information objectively and unemotionally, provide candid feedback to each other, and learn to overcome or mitigate factors that negatively impact preparedness.

Violence and danger will always be parts of war. Learning to fight in dangerous conditions despite fear and uncertainty is key to warfighting. Marines of all ranks must understand how the body and mind respond to fear and stress so that they better control their responses in any situation, including combat. Marines learn how to effectively control stress reactions and fight in dangerous conditions through realistic training, increasing self-awareness, understanding the attributes of war, and increasing mental and physical resilience. For example, Marines learn breathing techniques during marksmanship training to better control how the body's nervous system responds to stress in order to shoot more accurately. The breathing techniques help Marines to control their heart rate, respiration, attention, and muscles under stress, which then increases the accuracy of their fire. Combat can challenge unit cohesion and present Marines with a variety of moral and ethical dilemmas. Marines develop strong mental, moral, spiritual, and ethical understanding because they are as important as physical skills when operating in the violence of combat.

The science of learning encompasses many disciplines, such as neuroscience, psychology, and andragogy (adult learning).¹⁵ The human brain is a constantly reorganizing system capable of being shaped and reshaped across an entire lifespan. Each new learning event impacts the brain, regardless of the Marine's age, rank, or level of experience. Therefore, all Marines should understand that challenging experiences enhance the brain and better hone their warfighting capability. Science has also identified that individuals and teams have differences in the way they learn, with varying sensory preferences for learning,¹⁶ competencies, and strengths. These differences are essential components of the learning process and can be useful knowledge for structuring or engaging in learning events so that learning is more effective. Prior experiences, knowledge, competencies, and perspectives are all unique elements that form the basis for understanding new information. Marines form relevant connections between new information and their prior knowledge. Adult learning involves adapting or modifying the prior relevant information to the specific situation or problem that the Marine seeks to resolve. Understanding the human dimension and science of learning enables Marines to tailor training and education to more effectively build competencies, learn from mistakes, provide effective feedback, and sustain learning.

An effective way that Marines can accelerate their learning is by indirectly learning from others through *vicarious experience*. Vicarious experiences are relevant learning opportunities that each Marine obtains by observing, reading, and studying what others have experienced. For example, Marines obtain vicarious experiences from observing others in their unit performing a task

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during an exercise, participating in after action reviews, reading lessons learned reports, or studying history. There is no excuse for not learning from others.

The science of learning, combined with the art of learning, helps to develop well-trained and educated Marines and well-trained and combat ready units. Each Marine must learn *how* to learn, both independently and collectively in teams. Social and interpersonal factors, such as effective communication, group cohesion, and trust, all influence learning. When these factors are positive, they facilitate the learning process and create strong relationships. Marines should actively seek to understand human and environmental factors that influence learning while avoiding thoughts and behaviors that can negatively affect learning and cohesion. This knowledge of the human dimension of learning and their own experiences lead Marines to develop wisdom that facilitates effective decision-making, which is often the determining factor in the battlespace.

PROBLEM SOLVING AS A WARFIGHTING CAPABILITY

Time spent learning *how* to effectively think and solve problems is time well invested. Marines must build the skills to recognize potential problems, reason, and think critically. *Reasoning* is the process of thinking about something in a logical way to form a conclusion or judgement. *Critical thinking* is the reflective part of

that reasoning.¹⁷ Critical thinking skills include inference, evaluation, interpretation, and explanation. Developing these skills enables Marines to understand not only the information presented, but also its potential implications and secondary effects. Through reasoning and critical thinking, Marines explore, question, and understand the key factors affecting the situation, which then enables Marines to develop better courses of action.

As Marines, we continuously seek and use information to solve problems. As information becomes more ubiquitous, it is increasingly challenging to determine how and what to focus on in order to make sense of information. The more often that Marines identify key cues and information during peacetime experiences, the more quickly that Marines are able to decide and act when deployed. Although each Marine views the world and problems through his or her unique perspective, every Marine develops common problem-solving skills. Quickly recognizing and addressing potential problems enables Marines to better deal with disruption and respond to changes in the enemy situation. With deliberate practice, Marines improve key skills such as recognizing patterns, filtering important information, critical thinking, and reasoning. The future battlespace will contain increasingly difficult problems that do not necessarily have a “right” answer. Therefore, Marines’ skills to observe objectively, reason effectively, take decisive action, and then adjust as needed remain key elements of success.

THE MIND AS A WEAPON

The philosophy of maneuver warfare guides much of what Marines do—it is their way of thinking about and preparing for war with the intended purpose of taking decisive action against the enemy at the least cost to themselves. Marines study and apply maneuver warfare in order to better exploit advantages in multiple domains and create rapidly unfolding situations in battle that overwhelm the enemy. Maneuver warfare requires that Marines develop the temperament to persevere amidst uncertainty and the mental agility to succeed in fluid and chaotic situations. Additionally, it requires being able to understand the dynamic and complex situation from multiple perspectives to determine how to exploit an advantage. Decentralized execution within the commander’s intent is central to maneuver warfare; this requires that each Marine understand the situation and execute actions to support and achieve that intent.

Regardless of technology and equipment, Marines are ready to fight and win. Therefore, it is essential that Marines develop and maintain an intellectual edge over any enemy by developing their minds; just as they would prepare any other weapon system for battle. This intellectual edge must come from self-disciplined study and deliberate practice as Marines to build competencies in the profession of arms—as individuals, teams, units, and MAGTFs.

CONTINUOUS LEARNERS

Developing the mind as a weapon is a career-long process. Marines are continuous learners—they pursue mastery in the profession of arms, recognizing that the achievement of mastery is a journey, not a destination. As adult learners, Marines recognize that they are responsible for their own learning outcomes, actions, and decisions.¹⁸ Marines continuously seek to build their expertise and understand the context of what they are learning so that they can apply it effectively in new situations. Marines leverage their own unique personal experiences, as well as the experiences of others, as foundations to increase their understanding.

As adult learners, Marines need to know *why* content is relevant during both training and educational activities. Marines perceive learning as a progression of goals to build competencies, not a single discrete goal. Therefore, Marines benefit most from information and learning activities presented in the context of real-life situations or task-specific problems. Tactical decision games, war games, and case studies are examples of effective learning methods for Marines—they situate the learning concepts within the context of warfare and illustrate why the content is relevant. Marines make sense of the information and build mental connections between their personal and vicarious experiences. As a result, Marines build individual and collective knowledge over time that enables them to understand different situations and other peoples' perspectives, informing how to accomplish missions in changing situations.

To become better warfighters, Marines continuously gather information and engage in activities that test their assumptions, develop new knowledge, increase critical thinking and reasoning, and build deeper understanding. Instead of simply asking *what* happened in a battle, Marines should always ask and seek to better understand *why* the events happened, and consequently what to apply for future situations. Marines must learn about a broad range of topics and skills through professional reading, experiential learning, and deliberate practice. Marines must also approach each event and interaction as a learning opportunity. There is always something to learn; even if that something is what *not* to do in the future. As continuous learners, Marines actively seek, apply, and share lessons learned to develop themselves and other Marines in the profession of arms.

CONCLUSION

Marines learn the concept of every *Marine a rifleman* early in their careers. As Marines prepare for the complexities and volatility of future operating environments, they also recognize that—for effective warfighting—every Marine must also be a continuous learner. Marines continuously build and hone the skills needed to fight our Nation’s battles, wherever and whenever they may occur. Marines are a naval expeditionary force-in-readiness—and are career-long students of the profession of arms. Marines leverage the human dimension and science of learning in training and education. Marines learn in the classroom, learn in the field, learn in

everyday life, and learn in combat. Marines adapt every tool that they have—weapons, equipment, and their minds—to succeed and *win* in every clime and place. Marines must develop and demonstrate brilliance in the basic fundamental skills, combined with the mental agility to adapt to whatever situation they face. The Marine Corps is a thinking force that constantly strives to improve and is never finished learning. To continuously improve, Marines take a focused, self-disciplined approach to career-long learning and instills a culture of learning throughout our Corps.

Chapter 2

The Culture of Learning

“Humility engenders learning because it beats back the arrogance that puts blinders on. It leaves you open for truths to reveal themselves. You don’t stand in your own way Do you know how you can tell when someone is truly humble? I believe there’s one simple test: because they consistently observe and listen, the humble improve. They don’t assume, ‘I know the way.’”¹

—Wynton Marsalis

“There are no secrets to success. It is the result of preparation, hard work, and learning from failure.”²

—Colin Powell

“Thanks to my reading, I have never been caught flat-footed by any situation, never at a loss for how any problem has been addressed (successfully or unsuccessfully) before. It doesn’t give me all the answers, but it lights what is often a dark path ahead.”³

—James N. Mattis

Ideas and methods can have a more significant impact on warfighting than weapon systems, technology, or organizational structures. Marine Corps philosophy and ideas are in our doctrine and operational concepts. As Marines, career-long learning about our profession provides a solid foundation for critical thinking that informs Marine Corps ideas, methods, and concepts. The Marine Corps' learning culture fosters the attributes that every Marine needs to pursue, such as adaptability, creativity, critical thinking, active listening, and a bias for action. These attributes are guided by doctrine, while focusing on the overall objectives to succeed and win battles. The organizational learning culture is a key factor that supports and builds these components for warfighting proficiency.

ORGANIZATIONAL CULTURE

Organizational culture consists of the underlying beliefs, assumptions, values, and ways Marines interact that contribute to an organization's unique social and psychological environment. The culture of an organization comes from its history, customs, beliefs, behaviors, and expectations. Culture also reflects how a group describes themselves, their beliefs, and their organization. The Marine Corps organizational culture includes the maneuver warfare philosophy, an expeditionary mindset, and the pursuit of mastery in the profession of arms, as well as Marine Corps customs, traditions, and legacy established by the Marines who served before us. The Marine Corps' culture of learning instills

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these beliefs and values, beginning with turning civilians into Marines during entry-level training and schools, and continuing throughout Marines' careers. Marines embrace learning to effectively instill fundamental warfighting skills, recognize when change is required, and then adapt effectively to the factors driving change. Honing an intellectual edge over the adversary requires that all Marines become continuous learners who contribute to a learning organization. Therefore, Marines must continuously strengthen their learning culture to support professional development for all Marines.

The Marine Corps' culture values action, responsibility, adaptability, and problem solving. Therefore, the Marines' learning processes and culture develop and exercise these values. The Marine Corps' hierarchical command structure and processes may at times be perceived as an obstacle to adaptability and learning. Although both are essential for the proper exercise of command and control, Marines must ensure that they do not set the conditions for unintended negative effects on learning that could negatively impact warfighting, such as discouraging Marines' initiative, feedback, or problem solving.

Institutional processes such as recruit training and formal schools set the conditions for a culture of learning. Commanders in the fleet reinforce those initial processes, setting the conditions for a culture of learning that encourages Marines' adaptability, problem solving, initiative, reasoning, and innovation, while maintaining structure, discipline, and readiness. Commanders set conditions that foster a culture of learning within units, and it is each individual Marine's responsibility to learn in those conditions.

Marine Corps leaders at all levels must prioritize learning for themselves and their subordinates so that all Marines are ready for any challenge. A key Marine Corps leadership principle is to set the example; therefore, leaders set the example for learning. Doing so encourages Marines to develop critical knowledge, competencies, and thinking skills that the Marine Corps needs to fight and win our Nation's future battles.

Leaders *at all levels* are charged with creating an environment where continuous learning becomes the standard. Leaders serve as positive examples of a disciplined approach to learning, while also providing their Marines with constructive feedback. Commanders will appropriately prioritize learning opportunities so that Marines of all ranks engage in meaningful professional development and progress in the profession of arms. Leaders of Marines must dedicate time and effort to learning, and prioritize mental fitness as much as physical fitness. For example, Marines can integrate learning activities into physical fitness training activities—stations can be set up along a run to demonstrate competence on a variety of tasks and equipment, such as using a radio, reporting specific items that are seen along the path, or demonstrating an understanding of different concepts (e.g., rules of engagement). Integrating learning activities into physical training events when Marines are both mentally and physically challenged encourages deep learning and facilitates the recall of lessons learned during combat situations.

As part of the learning experience, leaders must foster an environment that appropriately tolerates mistakes, errors, and challenges to existing ideas. Challenging ideas and making mistakes are part of

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the learning process. Challenging ideas in a respectful and constructive way contributes to improved learning for both subordinates and leaders. Leaders should permit ideas to be challenged in discussion and planning, up to the point where the leader makes the decision. Leaders should not automatically interpret a subordinate challenging an idea or providing feedback as challenging their authority. The leader's authority gives him or her the responsibility to make decisions, but it does not mean that leaders have to develop all of the ideas themselves.

Subordinates need to be willing to admit mistakes, ask questions, and seek corrective feedback. Naturally, "a subordinate's willingness to admit mistakes depends on the commander's willingness to tolerate them."⁴ Mistakes in training environments create opportunities for leaders to provide feedback essential for their subordinates' learning, and therefore, helps prevent Marines from making the same mistakes in combat. At the same time, leaders need to have enough humility to admit that they, too, have made mistakes. Leaders should discuss mistakes, explain why they happened, and share the lessons learned with subordinates. It must be recognized that within an environment of appropriate safety measures, Marines will learn from their mistakes when they receive constructive, corrective feedback. Learning from mistakes within a controlled environment is an effective way to reduce mistakes in combat, when the friction and fog of war makes even simple actions more difficult.

A critical element of learning from mistakes is embracing an *appropriate* level of risk. Combat is inherently dangerous and risky. However, the greatest mistake in combat could be an

unwillingness to act from a fear of risk or a failure to adapt to the changing situation. Therefore, Marines should only take reasonable risks during training and learn to adapt to the changing situation. Leaders must recognize that part of the leadership role is to establish the standards for what kinds of risks are reasonable. All Marines, regardless of position or rank, must discuss what led to mistakes, take corrective action, and learn from them. Learning from mistakes is key to Marines learning to act decisively and effectively, while taking prudent risks.

Lessons Learned From Belleau Wood

The “devil dogs” from the 4th Marine Brigade, who fought at Belleau Wood in 1918, took advantage of opportunities to learn from others and adapt during the fighting. After the action, they analyzed and instituted additional changes. Captain John W. Thomason, Jr., who earned the Navy Cross during his service with 1st Battalion, 5th Marines, wrote about the 4th Marine Brigade. Reflecting on the need to modify formations and tactics, he recollected:

Those were before the days of lavish maps, to which the Americans afterwards attained. There was one map to each company, exclusive property of the captain. Platoon commanders had a look at it—“You’re here. The objective is a square patch of woods a kilometre and a half northwest, about. See?—this. Form your platoons in four waves—the guide will be right. Third Battalion is advancing their flank to conform. French on the left. . . .” Platoons were formed in four waves, the attack formation taught by the French, a formation proved in trench warfare, where there was a short way to go, and you calculated on losing the first three waves and getting the fourth one to the objective.⁵

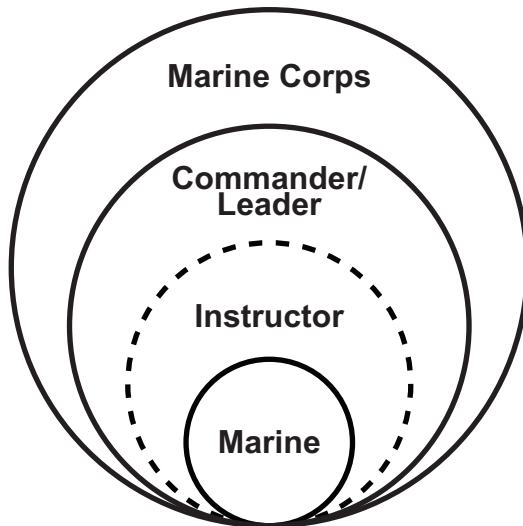
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After the first engagement, the Marines never used it again. It was a formation that simply accepted casualties, was not adapted for open warfare, and left formations rushing across open ground incredibly vulnerable. It did not take the Marines long to learn better and to adapt their tactics founded on sound basics learned during their training. Initial training made Marines adept at long-range marksmanship and close-in combat. Careful attention to the experiences of others highlighted both the advantages and disadvantages of trench warfare. The Marines recognized and overcame errors or omissions in map reading, orders dissemination, reconnaissance, and combined arms integration. During the fight for Belleau Wood, Marines learned and adapted as they fought. Unlike their initial use of the French formation, the final drive to secure Belleau Wood was achieved with close integration of maneuver with supporting artillery fire.

After the war, Thomason studied both German and US Marine Corps records to analyze the lessons learned in Belleau Wood and other areas so that Marines could learn and reinforce these lessons during peacetime training, rather than during the deadly combat of war. Consequently, Marine training retains a focus on individual marksmanship, map reading, the troop leading steps, and the integration of combined arms to generate combat power. Marines' use of MAGTFs employed so effectively since the 1960s was in part based on lessons learned at Belleau Wood regarding the importance of a sound foundation in the basics and integrated combined arms. Marines learned the value of learning and adaptation from the experience at Belleau Wood and other battlefields, further establishing the Marine Corps' culture of learning.

AREAS OF RESPONSIBILITY

There are four functional areas of responsibility in the culture of learning, as shown in the following figure: the individual Marine, the instructor, the commander/leader, and the Marine Corps as an institution. First, it is each individual Marine's responsibility to



The dashed line indicates that an instructor may also serve as a unit leader.

Four Functional Areas of Responsibility for the Culture of Learning.

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progress in his or her own self-education and build a bias for intelligent action. The areas of responsibility and learning principles complement the Marine Corps' leadership principles. Marines embrace continuous learning, always seeking new ways to improve.

Second, within formal schools, instructors should be selected based upon their potential to become effective teachers, facilitators, and mentors. Marine instructors further develop their instructional skills while they are instructing by seeking feedback and continuing their education to improve their own skills, as well as others. Ultimately, instructors are key to shaping Marines' attitudes toward learning and are critical to improving Marine Corps readiness.

Third, leaders at all levels are responsible for setting the conditions within the unit for the subordinates' professional military learning and development. Command programs reflect the commander's thoughts regarding leadership, mentorship, commitment to warfighting proficiency, and unit cohesion. Commanders tailor the unit's learning breadth, scope, and specific experiences to best prepare Marines for assigned unit responsibilities and the mission, building both individual and collective skill sets.

Finally, the Marine Corps as an institution demonstrates a focus and commitment to encouraging career-long learning by continuously refining learning methods and providing resources and opportunities for professional development. Key to this commitment is ensuring that incentives are structured to encourage this learning culture. The Marine Corps values learning for warfighting readiness and effectiveness, continuously seeking better ways to

support these values within organizational structures, resources, policies, and practices. Marines recognize that learning is a vital element of ensuring readiness, effectiveness, and adaptability to changing situations. This culture of learning is enabled through the Marine Corps' learning-oriented policies, programs, and institutional processes. A culture of learning prioritizes and is committed to continuous learning and professional development.

PROFESSIONAL EXPECTATIONS

Marines are expected to have initiative, self-discipline, and motivation to actively engage in learning opportunities on their own. Marines must take ownership of personal learning by creating specific professional goals. After assessing progress, Marines may adjust their goals so that they remain challenging. Conversely, if a Marine struggles to attain a goal by the date established, the goal may need to be adjusted to include additional interim steps, feedback, or a modified timeline. Establishing clear short-, mid-, and long-term goals enables Marines to plan a clear path toward professional development.

Learning is a developmental process. Professional learning goals are generally process-oriented so that short- and mid-term goals lead to long-term ambitions. Each Marine should identify professional learning goals, establish a plan of action, seek feedback, and regularly assess his or her progress. Just as learning is continuous, Marines regularly review, revise, and hold each other

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accountable for their professional development goals. Individual goals and progress can be discussed with peers, mentors, leaders, and—as appropriate—with subordinates. Additionally, professional learning expectations rise with seniority. While junior Marines are generally introduced to specific topics, subjects, and expectations, more senior Marines are expected to independently broaden the scope of their learning to advance their expertise. Taking time to organize one’s thoughts, reflect upon professional goals, challenge existing ideas, and process new information is important at *every* level of the developmental process.

Learning is also a process of professional growth; Marines demonstrate motivation and professionalism by cultivating a *growth mindset*.⁶ Individuals with a growth mindset believe that effort and learning can change one’s qualities—leading to development and success. Marines with a growth mindset are willing to set goals and actively improve upon personal weaknesses or knowledge gaps to further develop their skills, knowledge, and competencies. Marines with a growth mindset seek challenges and feedback to better learn and test current skills, increasing their competencies. Marines understand that mistakes and feedback can signal a need to improve and that investing increased effort, time, and practice will further develop professional skills.

Marines with a growth mindset understand that they have control over their individual learning, and that the additional effort pays off in developing the knowledge and skills to improve. Conversely, individuals with a fixed mindset believe that their qualities are innate and are interested in feedback only to confirm their abilities, avoiding feedback that indicates any perceived weaknesses.

Avoiding feedback and having a fixed mindset leads to stagnation. Leaders, mentors, and instructors directly influence Marines' mindsets through the learning climate that they establish and the feedback that they provide. When leaders, mentors, and instructors attribute Marines' successes to preparation, effort, persistence, and practice, the Marines are more likely to develop a growth mindset that cultivates the intrinsic motivation to continue to improve as warfighters.

Intrinsic motivation is driven by perceived internal rewards; that is, one is driven to engage in a behavior because it is satisfying. Leaders can cultivate this type of motivation within Marines by supporting the growth mindset, and individual Marines can sustain it throughout their careers. In this way, the Marine Corps culture of learning encourages commanders, leaders, instructors, teams, and individuals to *all* support intrinsic motivation for learning and self-improvement.

The Marine Corps' organizational culture itself must continue to change and adapt to enable effective learning. This requires that the Marine Corps continuously explore new ideas, rigorously assess their feasibility and effectiveness, and implement ideas that work. A learning organization develops new ideas, tests them, learns from both successes and failures, and always recognizes that what worked in past or present situations may not continue to work in the future. Therefore, the Marine Corps organizational culture recognizes that the process of learning is *never* complete.

Learning is a Marine Corps priority and is foundational to the Marine Corps' culture of adaptability and competence in harsh expeditionary environments. While commanders are responsible

for the development of their Marines, continuous learning as a facet of self-improvement remains a personal and professional responsibility of all Marines. Fortunately, there are many opportunities to encourage learning at all levels—*especially* for intrinsically-motivated learners.

CONCLUSION

The Marine Corps culture supports continuous, career-long learning at all levels. Professional learning is a responsibility and journey that all Marines embark on from their first day as Marines. The Marine Corps, Marine leaders, commanders, instructors, and individual Marines all contribute to a culture of learning which cultivates the belief that learning is a priority and an enabler for more effective warfighting. A culture that values continuous learning strengthens the desire for all to improve by setting clear goals and by learning from the past, while remaining open to new ideas and methods.

All Marines can facilitate learning. As Marines develop in their careers, the responsibility to facilitate learning also increases. Marine Corps culture embraces learning as fundamental to Marine readiness—to be the first to fight. Learning is essential to any profession, but it is particularly important to the Marines profession of arms, where the costs of not learning are so steep.

Chapter 3

The Learning Environment

“It is necessary for us to learn from others’ mistakes. You will not live long enough to make them all yourself.”¹

—Hyman Rickover

“Our knowledge of circumstances has increased, but our uncertainty, instead of having diminished, has only increased. The reason of this is, that we do not gain all our experience at once, but by degrees; [so] our determinations continue to be assailed incessantly by fresh experience; and the mind, if we may use the expression, must always be ‘under arms.’”²

—Carl von Clausewitz

Victory does not necessarily go to those who have the largest or most modern forces, but to those who are able to recognize the need to adapt, generate intelligent decisions, and execute them more quickly than their enemy. This has proven true in the past and will assuredly continue into the future. As the Nation's naval expeditionary force-in-readiness, Marines create and foster learning environments that mirror the ways they fight and the threats that they will encounter. Marines must have many opportunities to learn in environments that realistically simulate the challenges Marines will encounter against capable adversaries across the full range of military operations. Effective learning opportunities, from simple reading assignments to field exercises, wargaming, and simulation training exercises, are critical to ensure that Marines experience realistic warfighting conditions, challenges, and complexity.

In the progression of learning, training should provide Marines with an opposing will to practice against. Through repetitions in a training environment, Marines learn to outthink adversaries and overcome friction *prior* to encountering these factors during real-world operations. Therefore, Marines integrate lessons learned from current and previous conflicts to adapt their learning environments, methods, assessments, and feedback to reflect evolving threats. In these learning environments, Marines can make mistakes, learn from them, adapt, and progress along a path to developing increased warfighting knowledge, skills, and competencies. Learning environments that are learner-centric, adaptable, and provide Marines quality feedback and repetitions create warfighters that outpace our Nation's adversaries.

LEARNING ENVIRONMENTS

The learning environment is much more than simply the physical space where learning occurs; it encompasses all the factors that influence instruction, such as methods, resources, technologies, culture, instructors, peers, and the social elements of learning. Developing warfighting skills and competencies requires time, deliberate practice, and repetition in operationally relevant contexts. There is not a single *correct* design for creating the ideal learning environment because each learning objective, Marine, team, and condition will differ. Therefore, Marines modify the learning environment to most effectively meet the learners' needs and reflect the conditions that they expect to encounter. The interaction of instructors, learning materials, learners, and the learning delivery methods all create an effective and dynamic learning environment.

Effective learning requires environments that foster flexibility of thought, reasoning, and the creation of potential solutions to problems, and encourages Marines to explore alternative courses of action. At the same time, not all learning and decisions are based on analytical reasoning. Therefore, learning environments must also support Marines to make timely decisions and take action, including developing rapid experience-based decision-making such as recognition primed decision-making³ and other forms of nonanalytical reasoning. Above all else, the learning environment is intended to aid the leader, instructor, mentor, or facilitator in creating conditions that are favorable to the desired learning outcomes for the learner.

Instructors and leaders determine the specific instructional methods to use based upon the intended learning outcomes, the learners' level of expertise and experience, the available tools and resources (including time), and the instructors and leaders experience. Instructors and leaders should select the most effective method in order to achieve the intended learning outcome. They should employ a variety of learning methods, recognizing that methods that are effective for one instructor, leader, schoolhouse, or learning outcome may not be effective for others. Learning environments are regularly assessed and adjusted as needed so that they remain appropriate for the intended learning objectives. An effective learning environment enables Marines to clearly understand the intended warfighting doctrine, concepts, tactics, techniques, procedures, and learning outcomes. It clearly identifies the expectations for the learners—whether exercising Marines' critical thinking and problem-solving skills or understanding circumstances where immediate obedience to orders or application of specific basic skills (such as good marksmanship) are required. Additionally, effective learning environments provide opportunities for Marines to execute the required repetitions under different conditions to achieve competency. First and foremost, the learning environment focuses on the learners' needs, enabling Marines to understand, develop, and retain the necessary knowledge and competencies they will use in combat.

There are many proven and effective traditional instructional methods; however, leaders and instructors must remain open to exploring new evidence-informed methods to improve Marines' learning environments so that they can have multiple ways to

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develop competencies. When considering whether to replace or enhance existing instructional methods, instructors and unit leaders must first seek clear evidence that a new method is, in fact, better than the existing methods. Marines do not hastily adopt a new method simply because it is new; rather, Marines assess its value to support learning relative to their existing methods. Marines are open to exploring and adopting new methods when they are demonstrably better, not just because they are new.

Although Marines strive for learning efficiencies, improving the learning environment does not necessarily mean making it more efficient. For example, although rote memorization or reciting facts can be very efficient and useful for developing basic knowledge, such as memorizing standing orders, they are not effective methods for all learning. Effective learning often requires approaching material from different perspectives, applying information in context, and explaining *how* and *why* actions occurred, in addition to *what* occurred. Mastering a topic or difficult skill requires that Marines spend time questioning and reflecting upon information to obtain deeper understanding, and to determine how principles apply in practice. Marines understand key doctrine, principles, and knowledge so that they can better identify when and how to deviate as the situation demands. Effective learning environments foster a range of learning opportunities and encourage Marines to pursue mastery in the profession of arms.

SETTING THE CONDITIONS FOR SUCCESS

The concepts of *surfaces* and *gaps*—from a warfighting perspective—are discussed in MCDP 1. Put simply, surfaces are hard spots (i.e., enemy strengths) and gaps are soft spots (i.e., enemy weaknesses). Just as Marines study the enemy’s surfaces and gaps, Marines must study their own. Having done this, Marines then tailor the learning environment and approach to accelerate learning. For the Marine learner, *surfaces* are areas of existing understanding—strongpoints that Marines maintain, build upon, and relate—while *gaps* are areas of weaknesses in knowledge, experience, or competencies—areas that the instructor and the learner need to fill with new understanding and practice. The same is true of Marine Corps units. While focusing on addressing the learning gaps, Marines also ensure that surfaces do not deteriorate over time. Furthermore, learning environments help reveal individual barriers to effective learning that can lead to gaps, such as personal ego, inexperience, and bias. Open discussion and quality after action reviews provide opportunities for Marines to reflect upon their experiences and internalize new concepts to fill these learning gaps and reinforce learning surfaces.

Recognizing these surfaces and gaps requires awareness, honesty, and judgment because they are often unique to the individual or the specific unit—a surface in one learner or unit may be a gap in another. It is incumbent upon leaders, instructors, learners, and their peers to “actively seek out [these] gaps [through] continuous and aggressive reconnaissance”²⁴ (i.e., self-assessment). Learners should not hide gaps in their knowledge—instead, they should exercise intellectual humility to identify and fill these gaps in

order to improve. Marines mitigate weaknesses by leveraging their strengths (i.e., surfaces) to form new understanding and focus on learning to eliminate the gaps. This can only occur when learners first acknowledge their weaknesses and resolve to leverage their strengths to build meaningful connections.

THE EXPEDITIONARY NATURE OF LEARNING

Expeditionary warfighting is the primary focus of Marine learning; therefore, learning environments should reflect expeditionary operations. Although much of a Marine's initial training occurs in schools, learning continues throughout a Marine's career and often occurs outside of formal settings. Consequently, learning is adapted to the specific individual and unit context, mission, and operational conditions. Marines recognize that to be effective warfighters, they must be warrior-scholars—they must seize the initiative to study the profession of arms whenever and wherever learning opportunities arise.

Aside from instructors in formal schools, Marines learn from leaders, mentors, peers, subordinates, professional reading, field exercises, in garrison, and aboard ship. Marines learn about warfighting through on-the-job activities, discussions with other Marines, interactions with the members of other Services and allied forces, and *all* their experiences. For example, Marine units may discuss tactics while traveling to conduct an operation, learning during mission rehearsal and preparation. Additionally,

Marines can use downtime while aboard ship to conduct simulation training, complete professional reading, conduct tactical decision games, rehearse unit standing operating procedures, and discuss warfighting vignettes. Marines seek and seize opportunities for learning in any clime and place.

Force-on-Force Exercises to Simulate War's Complexity

Force-on-force exercises are purpose-driven learning environments that approximate the complexity of war. For example, a red force can be scripted to use the enemy's anticipated tactics to test the Marines' level of "brilliance in the basics" at applying tactics, techniques, and procedures against an expected foe. Additionally, the red force could follow enemy strategy and tactics, but also adapt to blue force actions. A third option might employ complete free play between two opposing forces—whether in live field training or in other learning activities, such as a war game—to allow both forces to exercise better unit tactics and combined arms operations. All of these approaches have a purpose and application—from exercising the basics to fighting against a thinking, adaptive peer competitor.

When developing such exercises, Marines focus on designs that enhance problem solving and promote decision-forcing events. This enables Marines to practice and better understand how to get inside the enemy's decision-making process. The training provides difficult situations that simulate operations as realistically as possible, requiring that Marines confront dilemmas and experience the increased stress that may impact unit cohesion during combat. There is no substitute for fighting against a competent, realistic, thinking, adaptive enemy—even if that enemy is simulated by other Marines. This practice ensures that challenging learning environments provide a place to practice, develop experience, allow errors, adapt, and learn how to *fight and win*.

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Throughout history, technology has advanced and tactics have evolved to address increasing complexity. Regardless of technology, Marines need to adapt and deal with complex problems faster than their enemies by exploiting expeditionary learning environments and developing an expeditionary mindset—that is, a readiness to exploit learning opportunities at any time, in any place. Marines guard against complacency because they know that their adversaries are always watching what the Marines are doing and are constantly making changes to adapt in an attempt to defeat us. If Marines settle for what they think is “good enough,” it may result in high casualties in the next fight. Just as every Marine is a rifleman regardless of their duties and military occupational specialty, every Marine is also part of an expeditionary learning organization, ready to recognize changing conditions and adapt accordingly.

For example, Philip II of Macedon and Alexander the Great adapted the phalanx formation originated by the ancient Sumerians, by employing the phalanx in conjunction with light infantry and cavalry—vice relying upon heavy infantry—to be more maneuverable for both defense and offense.⁵ More recently, the coalition led by the United States employed a more modern combination of ground, maritime, air, electronic warfare, and cyberspace operations during operations in both Iraq and Afghanistan. Although these examples are centuries apart, the principles are the same: improve the force’s ability to protect itself while accomplishing the mission. Common to both examples are adaptive, thinking leaders who addressed complex problems and developed workable solutions, even without perfect information.

A LEARNER-CENTRIC MODEL

Operationally, the *main effort*⁶ is the organization (unit or task force) assigned responsibility for accomplishing the essential tasks of the overall mission. The main effort receives priority for support and becomes the harmonizing force for all subordinate initiatives. For a learning environment to be effective, the learner must be the main focus of effort. Therefore, whether at the individual or collective level, the learning environment focuses on the learners—individuals, teams, units, and MAGTFs—as the main focus of effort. Leaders and instructors are always in support of the learner.

Marine leaders and instructors shall recognize the importance of understanding learners' needs, interests, and abilities in order to inspire, challenge, and motivate their Marines. The learner-centric model tailors the learning delivery methods to be most effective for the learners, rather than defaulting to a "one-size-fits-all" instructional approach. When faced with a decision, ask "*how can I best support the main focus of effort: the learner?*" Marines will be more engaged and enthusiastic about learning when the methods are adjusted for their aptitudes. Learners need opportunities to work at their own pace, and—when appropriate—to explore areas that they find useful or interesting. Decentralized learning provides learners with multiple opportunities to follow their curiosity to develop professionally. The learner-centric model ensures that content is relevant to learners, actively engaging and challenging Marines in a positive instructional climate. For example, discussions on problem solving between the learners and leaders and instructors are an effective method to motivate learners and build teams as they analyze information, consider alternatives, and

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work together to develop a solution to the problem posed to them. This method is often characterized by active learning through the creation of follow-on questions that further define and solve the problem. This fosters an engaging learner-centric environment and critical thinking and challenges Marines to develop alternative solutions.

The goal of a learner-centric environment is to help learners make connections between prior knowledge and newly presented material. As described in the first chapter, adult learners use their current knowledge as a basis when they gain new knowledge. Marines learn differently, in different ways, and/or at different speeds. To facilitate these connections, leaders and instructors must know their Marines and become familiar with their strengths, weaknesses, needs, and interests. This familiarity enables establishing a learning environment that can introduce, reinforce, sustain, and evaluate essential behaviors that are vital to mission success. Additionally, leaders and instructors can involve learners in tailoring the learning environment and content to make learning more engaging. Although adaptive curriculum may not be suited for entry-level training and schools, it can be effective at intermediate and advanced schools. While each Marine is individually responsible for learning, Marine Corps commanders, leaders, mentors, and instructors establish the conditions for success.

SELF-DIRECTED LEARNING

Self-directed learning is the process in which individuals take the initiative in identifying their learning needs, formulating goals, pursuing these goals, and evaluating outcomes.⁷ Although self-directed learning begins with the learner, it requires support and guidance from commanders, leaders, mentors, and instructors. When appropriate, encouraging and holding Marines accountable for self-directed learning increases and sustains professional curiosity. The idea of self-directed learning is similar to *mission tactics*—assigning a subordinate a mission without specifying how the mission must be accomplished.⁸ In MCDP 1, leaders are encouraged to leave the manner of accomplishing the mission to their subordinates, thereby allowing a subordinate to have freedom (and establishing the duty) to determine and take the necessary steps to accomplish the mission based on the specific situation. Mission tactics rely on a subordinate’s exercise of initiative framed by proper guidance and understanding; the same principle applies to self-directed learning.

Like mission tactics, self-directed learning benefits the leader and instructor by giving the learner more ownership and autonomy, which enables the leader or instructor to focus on learners who need more help or to explore alternate ways to improve the learning environment. The commander, leader, instructor, or mentor agrees to provide the learners with the necessary support and guidance to help them accomplish their missions without unnecessarily prescribing their actions. The learner is then responsible for devising and executing a plan of action that meets the prescribed guidance, exercising proper judgement and initiative.

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Self-directed learning encourages learners to develop a desire to learn, solve problems, and ask questions. Self-directed learning also enables critical thinking and reasoning, encouraging Marines to consider content credibility, sources of information, and alternate perspectives. As learners progress to higher levels, self-directed learning becomes both more effective and necessary for developing the intellectual edge that contributes to team, unit, and MAGTF effectiveness.

An effective and simple way to conduct self-directed learning can be through vicarious experience—learning from others' experiences, as discussed in chapter 1. This method is even more important in our profession than in others because Marines cannot always actually practice every variation prior to combat. For example, vicarious learning can be most effective when Marines reflect upon what they have either read or observed—how others acted and adapted—so they become better prepared for future challenges.⁹

Vicarious experience is critical because even the most realistic training experiences and military education fall short of the reality of combat. Therefore, the more vicarious experience that a Marine obtains, the less likely that a new experience, in combat or otherwise, will be completely unique. Having many personal and vicarious experiences to draw upon gives Marines a stronger foundation to adjust during unanticipated circumstances. *Mental imagery*, which is a person's visualizations or mental representations, can also be helpful for obtaining vicarious experiences. Marines can use mental imagery to gain confidence prior to executing a skill, emphasize key points in after action reviews, examine possible

outcomes of decisions, and explore options. Mental imagery also provides an effective mission rehearsal technique. When using mental imagery, a leader pictures himself or herself in the operation, vividly visualizes different scenarios, including possible branches and sequels, and rehearses the decisions he or she may make given specific conditions and enemy actions. In this way, the leader mentally prepares for multiple potential enemy actions and reduces the possibility of surprise when the enemy reacts.

Marines need time to reflect on new learning experiences to exploit their lessons. Self-reflection internalizes experiences and increases mental preparedness for employment across the range of military operations. Where continuous learning is seeking new experiences and knowledge, self-reflection puts both in perspective. Former Secretary of Defense and retired General James Mattis, when asked about the biggest problem with senior leadership, said that, “. . . it’s a lack of reflection[.] . . . Solitude allows you to reflect while others are reacting[.] . . . We need solitude to refocus on prospective decision-making, rather than just reacting to problems as they arise. You have some external stimulus, then you go back to your experience, your education, and you see what needs to be done.”¹⁰ General Al Gray, 29th Commandant of the Marine Corps, walked for 20 minutes every evening to think and reflect. Marines at all levels need time to reflect, absorb, and think about what they have experienced to turn it into what they learned. In a fast-paced world, Marines need to *make* time to reflect in order to build understanding, exploit lessons, and be ready to adapt as situations change.

THE ROLE OF THE INSTRUCTOR

Regardless of location or position, Marine instructors are knowledgeable, skilled, competent, and confident in their abilities. They know their Marines' strengths and weaknesses and empathize with the learners' challenges to better understand how they can tailor the learning environment to be more effective. Instructors also inspire learners to want to learn more by sharing their own experiences and explaining *why* learning is important. Attracting, rewarding, and retaining a highly qualified cadre of effective instructors is a crucial factor in facilitating Marines' learning and requires senior leaders to recognize the importance of learning. An appropriate focus on the selection processes is essential to select the right Marines as instructors, trainers, and educators. Therefore, the adage should be, "those who can, do, and those who have done well, teach."¹¹

The Marine Corps balances the rotation of the most knowledgeable and effective practitioners of the profession of arms between operational, instructional, and their own educational assignments so that more Marines can benefit from the experts' wisdom and skills, while they are afforded the opportunity to sharpen their own. For example, expert instructors know when to apply specific instructional methods, when it is time to transition to more advanced techniques, how to provide constructive feedback, and how to facilitate critical thinking and creative problem solving. Instructors and leaders are the foundation of Marine learning and, by extension, of Marine readiness.

ASSESSMENTS AS TOOLS

Learning assessments facilitate and guide the learning process to determine whether the learner is proficient in required competencies. They serve as feedback tools for both the instructor and the learner, assessing the learner's progress and the instructor's effectiveness. The best assessment method for the situation varies based on the learning objective. There are many types of assessments; examples include *diagnostic*, *formative*, and *summative* assessments. *Diagnostic assessments* identify the learner's knowledge of a subject before a learning activity. *Formative assessments* provide feedback to the instructor and the learner during the learning activity. *Summative assessments* identify the learning that occurred after the learning activity has completed. Instructors use a range of assessments matched to the learning objectives. For example, diagnostic assessments may be initially helpful to understand the level of learners' knowledge or skills before an educational or training event, whether individual or collective. Formative assessments are more process oriented; therefore, they can identify areas that need to be strengthened. At the end of a course or training event, summative assessments may be used to ensure that the learners meet a specified standard or have developed a competency, such as making effective decisions in tactical environments.

Assessments are employed to provide learners with constructive feedback so that they can further develop professionally, rather than an arbitrary test score that does not capture growth or change.¹² The most effective instructors use the coach-teach-mentor approach to provide learners with constructive feedback. Marine Corps

assessments are honest, transparent, and constructive so that learners better understand how they are progressing. Feedback is most valuable when learners can quickly apply the information to develop new understanding, knowledge, and skills. Although errors, mistakes, and failures are never end states, they may occur as a necessary step in the learning development process. Learners and instructors alike should understand that Marines learn because of their errors, not despite them.

TECHNOLOGY IN SUPPORT OF LEARNING

Just as MCDP 1 confirms that war is a human enterprise and that no amount of technology can reduce the human dimension, the learning environment is also primarily based on human characteristics rather than equipment. Technology can support, expand, and individualize learning; it is one of many tools to support learning objectives. Some technologies also collect data on learner performance to enhance feedback and after action reviews. Technology can facilitate individual and collective skill development, feedback on current performance, and supplemental instruction tailored to individual or unit needs. For example, Marines use simulations, both individually and collectively in teams, to train in calling for supporting arms. By simulating both the operational environment and command and control systems, simulation technologies enable Marines to obtain “additional repetitions” while training. These repetitions are particularly valuable when live-fire ranges, training areas, equipment, or other assets are limited.

Simulations can also introduce elements that cannot be easily or safely replicated in live training, such as the employment and effects of supporting arms.

Marines integrate supporting learning technologies seamlessly into the learning environment to educate themselves, learn vicariously, and realistically train as they will fight. For example, Marines can use other technologies, such as audiobooks or videos, to supplement their reading. Likewise, instructors use technologies to monitor, conduct after action reviews, and facilitate individual learner's progress. Marines also select specific technologies to augment their learning environments based upon the learning purpose, conditions, and their needs. Marines thereby seek and employ a variety of learning methods and technologies, all focused on the desired learning outcomes.

CONCLUSION

Battle is the ultimate test of military learning, and training as Marines will fight is a time-honored Marine Corps principle. In preparing for battle, Marines leverage the art and science of learning along with helpful technologies to enhance learning environments, tailor learning experiences, and provide constructive feedback to accelerate learning. Marines continuously assess and adapt the Marine Corps' learning content, methods, exercises, and environments to ensure that they are relevant and effective. Additionally, Marines increase their capability by providing other

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Marines with the freedom to exercise initiative for their own learning, such as in self-directed learning. Marines design, create, and evolve their learning environments to increasingly challenge ourselves. Commanders, leaders, instructors, mentors, and coaches ensure that individual Marines and their units receive realistic learning experiences that closely simulate operational conditions. Marines purposefully design learning environments to ensure proper warfighting skill development at all levels—individual, team, unit, and MAGTF.

To be successful, Marines must engage in continuous learning and be able to apply the lessons learned. During the stresses of combat, Marines will fight the way that they learned. Therefore, all Marines must engage in disciplined, career-long continuous learning, including seeking opportunities to receive feedback to guide improvement. Marines understand why they are learning and how it will improve their professional competencies as warfighters. Learning and continuous professional development are expectations and opportunities for all Marines.

Chapter 4

The Learning Leader

“ . . . leadership and learning are indispensable to each other. ”¹

–John F. Kennedy

“The future operating environment will place new demands on leaders at all levels. Our leaders must have the training, education, and experience to meet those demands. ”²

–Joseph F. Dunford, Jr.

“ . . . throughout history, [the difference] between brilliantly performing armies and mediocre ones has always [depended] on a small handful of combat leaders. ”³

–John Boyd

Leaders at all levels are responsible for their own learning while supporting their subordinates' development. Every Marine is either a leader or a future leader, whether by rank or by their experience and influence on others. Therefore, Marines must lead by example in seeking learning opportunities for themselves, as well as for their Marines. An excellent way to master a topic is to endeavor to teach it well to other Marines. All Marines can develop leadership skills and improve communication skills through learning. Marines succeed with leadership styles that provide clear intent through mission-type orders and decentralized execution. Marines hold a special relationship with each other that is akin to the relationships of mature siblings—they build each other up, share experiences, and hold each other accountable. This relationship begins with shared experiences in entry-level training and instills a shared understanding of honor, tradition, and the importance of leadership.

Learning is necessary to leadership—strong leaders promote learning in subordinates. Leaders recognize that the higher they progress, the more time that they must devote to leading others—including others' learning experiences. At the same time, leaders recognize that learning is critical to their responsibilities at higher levels. This situation creates a dissonance—leaders at higher levels recognize the greater need to learn, but they often perceive that they have less time to do so. Therefore, the Marine Corps instills learning as a priority so Marines always look for opportunities to learn as much as they can, in a variety of ways, whatever their current situation or grade, in whatever time they have available. This situation reinforces the requirement to start the learning process as early as possible to ensure that it continues throughout every Marine's career.

FOSTER AND ENCOURAGE

Leaders model and set an example of learning for the Marines in their charge by openly seeking out and pursuing professional development for all Marines, *including themselves*. As stated in MCDP 1, “[a] leader without either interest in or knowledge of the history and theory of warfare—the intellectual content of the military profession—is a leader in appearance only. Self-directed study in the art and science of war is at least equal in importance to maintaining physical condition and should receive at least equal time.”⁴ Leaders who set an example with their actions and words that learning is important for the profession of arms inspire other Marines to learn more about the profession and its application. Marine leaders prioritize learning for themselves and others, taking an active role to foster and encourage Marine learning.

Leaders foster learning by engaging their Marines, taking interest in their well-being, and supporting their professional development. Leaders are justifiably proud when their Marines succeed; conversely, leaders help them overcome mistakes when they struggle. In combat, subordinates must assume responsibility when their leaders become casualties. It is the responsibility of leaders, therefore, to mentor and develop the next generation of Marine leaders to prepare them to assume greater leadership roles. Leaders do not wait for mistakes or failures to highlight a learning opportunity. Instead, they actively identify learning opportunities as they lead Marines in everyday duties so that their Marines learn to identify future learning opportunities on their own—and will be more apt to identify learning opportunities for

their own Marines as they move up in rank and position. Leaders provide subordinates with sufficient freedom of action to learn and develop without ceding responsibility to monitor, supervise, and correct subordinates' actions when necessary. We cannot rightly expect subordinates to exercise boldness and initiative in the field when they are accustomed to being over-supervised in garrison.⁵ The goal is for Marines to seek learning opportunities on their own accord, even if the leader is not present.

TEACHING AND LEADING

Teaching and leading cannot be uncoupled—Marines who cannot teach will struggle as leaders. Strong leaders do not berate a subordinate for making the first mistake; they turn mistakes into teachable moments. Leaders encourage Marines to pursue learning opportunities and cultivate open dialogue to discuss lessons learned when mistakes are made. It is the leader's responsibility to recognize, act on, and correct the mistakes by turning them into learning opportunities, understanding that it is far better to learn in a training environment than to make mistakes when deployed. General John A. Lejeune stated that:

The relations between officers and enlisted men should in no sense be that of superior and inferior, nor that of master and servant, but rather that of teacher and scholar. In fact, it should partake of the nature of the relations between father and son, to the extent that officers, especially commanding

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officers, are responsible for the physical, mental, and moral welfare, as well as the discipline and military training, of the young men under their command.⁶

Leaders who encourage an open discussion with their Marines about how thoughts and actions contributed to outcomes will have greater success at teaching compared to leaders who simply point out mistakes for a Marine to improve upon without context or explanation. One technique for accomplishing this goal is described in the brief excerpt below.

The greatest lessons are passed on via “foot locker education.” The key is in small unit leaders teaching their people. There is no substitute for the tested veterans telling how they survived and how things work. General Gray equates teaching to leadership and he set the example. The number of Marines, at all levels, that consider General Gray their teacher and mentor is legendary.⁷

Leaders provide effective feedback to Marines for clarity and understanding. That feedback differs at various levels. For example, a squad leader might verbally describe how to emplace a command-detonated explosive, explain why it is important, and then show Marines how to do it. Next, the squad leader would have the Marine emplace one, assess the results, and provide them with constructive feedback. The goal is not a simplistic discussion of the “right” answer according to that leader’s personal views, but rather for the Marine to develop greater self-awareness, an understanding of the situation and task, and to be able to adapt the lessons learned to future situations. For example, providing topic areas

for discussion using the Socratic method—asking and answering questions to stimulate critical thinking, draw out ideas, and identify underlying assumptions—during debriefs, rather than simply criticizing Marines’ actions, can be much more effective in fostering learning. Constructive, positive feedback makes learners aware of what they did correctly, reinforces desired behaviors, and identifies areas to improve. Negative feedback that unnecessarily tears a Marine down seldom leads to effective learning and can stifle initiative. Also, becoming aware of one’s weaknesses without follow-on action to improve them is wasted effort by both the leader providing the feedback as well as the learner who received it. Therefore, constructive feedback enables Marines to learn and improve from their mistakes.

HUMILITY

All Marines, especially those in positions of leadership, can learn from anyone if they are ready and willing to learn. However, ego can hinder learning. Commanders, other leaders, and instructors learn from the Marines in their charge while also leading those Marines to learn. Leaders recognize that humility is a part of the career-long learning process. The best leaders, at the highest levels, recognize that the more they learn, the more they need to learn—and they set the example for their subordinates. Effective leaders also recognize that we are not an expert in every topic (i.e., self-assessment), so we seek out those who are experts and

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learn from them, regardless of relative rank or position. The Marine with authority must make the decisions, but “until a commander has reached and stated a decision, subordinates should consider it their duty to provide honest, professional opinions even though these may be in disagreement with the senior’s opinions.”⁸ This mentality of open discussion hinges on the leader’s willingness to remain humble and accept honest feedback. Therefore, all Marines prepare themselves to become leaders by exercising humility and being open to constructive feedback.

When General James Mattis commanded Task Force 58, a composite naval unit during initial operations in Afghanistan from November 2001 to January 2002, he built relationships with members of the task force regardless of any formal position. “‘He created an atmosphere where barriers between commanders and staff and officers and enlisted were broken down. Members of the division were valued for the contribution of their talents rather than the rank on their collar.’ Likewise, when General Gray led exercises at Fort Pickett in the early days of maneuver warfare, the debriefs and learning discussions took place with no ranks visible, so that seniors were more open to learn from juniors, and juniors felt more free to speak up.”⁹

The path to mastery starts with a sense of humility—Marines recognize that they do not know everything, and therefore, must remain humble as they pursue greater understanding and competence. Marines should always recognize that there will be more to learn and they must embrace their curiosity in order to continuously learn. Curiosity will lead Marines to the knowledge required to fill their own gaps in experience and improve their skill sets. When a Marine begins to feel more

confident, it is because he or she is closing the gaps between their goals and their actual capabilities. Reaching a goal along the path to mastery is an indication that it is time to move on to a more challenging goal.

TECHNICAL AND TACTICAL PROFICIENCY

Marines begin their pursuit of mastery by developing “brilliance in the basics” of technical and tactical proficiency. At all levels, technical and tactical proficiency requires Marines to reflect upon what they have learned, identify learning gaps, and close them. Self-reflection enables Marines to evaluate the quality of their practice, recognizing that deliberate, purposeful, quality practice leads to mastery. Incorrect practice and lack of focus does not lead to perfection; it leads to negative training that could be transferred to the battlespace. Marines focus on doing the basics correctly, building speed and agility.

There are many technical skills that Marines learn—some are standard battle skills training, and others vary across military occupational specialties. Marines build foundational technical skills such as marksmanship and operating as part of a team in entry-level training. Marines learn to be technically proficient as riflemen, which provides a common identity among all Marines. The larger lesson for all Marines to learn is the hard work, dedication, and persistence required when seeking self-improvement. Marines build on this lesson as they move on to the next technical challenge.

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Technical and tactical skills grow more complex as Marines advance in rank and experience—requiring self-study, learning from peers, leaders, mentors, and advanced training and education. Technical skills also grow more advanced and complex as Marines assume responsibility for more advanced functions (e.g., maintenance quality control) and lead a larger number of Marines. Similarly, tactical skills progress based upon whether a Marine is leading a fire team, squad, platoon, company, or battalion. Marines must continuously build their technical and tactical proficiency at their current level while also preparing for the next level and leading or mentoring those at more junior levels. Leaders model this mindset and reinforce these skills for their subordinates and teams.

Teamwork is required to accomplish military missions, combining the coordinated, sustained, and successful execution of individual and collective skills. Learning opportunities arise in the interactions between leaders and individual Marines, as well as between Marines and their peers as they work in teams. Marines develop teamwork and competencies so that they are technically and tactically proficient as individuals, teams, units, and MAGTFs. Collective learning experiences build teamwork that enables success. Teamwork building exercises provide the opportunity for Marine leaders to both lead the development of their Marines' teamwork and learn from these exercises. During these learning activities, leaders who demonstrate humility by discussing what they did and why with subordinates reinforce learning at all levels of the team. Learning takes time, dedication, and diligence in the pursuit of mastery. This is true from the simple skill of correcting a rifle malfunction to the complex skill of applying tactics in the

battlespace. All warfighting skills, from basic to advanced, require dedication to continuous learning. Leaders set the tone for this dedication to learning, collective skill development, and teamwork to accomplish missions.

CONCLUSION

Strong leaders are also teachers and mentors. Every Marine is a current or future leader, and therefore, leads by example to seek learning opportunities for themselves and other Marines. All Marines develop leadership skills and improve communication through continuous learning and self-reflection. A strong leader turns mistakes into learning opportunities for those that they lead. Leaders encourage open discussion about how thoughts and actions contribute to outcomes, compared to simply pointing out mistakes for the Marines to improve upon. Leaders set the example by pursuing continuous professional development and career-long learning. The learning leader helps the next generation of Marines to become continuous learners.

All Marines, especially those in positions of leadership, should strive to remain humble so they are ready and willing to learn from anyone, at any time, in any place. Marines have a tradition of passing on expertise, values, ethics, and experiences to the next generation. Marines reflect upon these vicarious experiences and integrate them with their own personal learning experiences to develop greater wisdom, which is essential for success in the profession of arms.

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Learning is an institutional priority and a professional expectation for all Marines. Continuous, disciplined, and progressive learning is necessary for warfighting readiness. Our profession demands that Marines focus on learning to become competent in weapons systems and tactics. The Marines Corps must also foster a culture of learning, understand their own Service culture, those of other Services and allies, the human dimension of the operational environment, and the cultures of those that we operate among. Marines leverage the art and science of learning, along with helpful technologies, to enhance and adapt learning environments to reflect the changing operational environment, tailor learning experiences, and provide constructive feedback. Leaders actively seek opportunities to model, foster, and encourage learning, both for themselves and for the Marines in their charge. The learning leader is a key enabler for Marines to develop competencies to operate effectively as teams, units, and MAGTFs.

Learning is the foundation for all that Marines do—it is the key enabler for all warfighting functions and our purpose as the Nation’s naval expeditionary force-in-readiness. From the first moment at entry-level training to our final days in the Corps, Marines have the professional responsibility to learn and to pass on lessons to other Marines. Marines learn to quickly recognize and understand important information, adapt, make sound decisions, and act—which is especially important in the fog and friction of war. All Marines must understand that continuous learning is a priority and key to our readiness as the Nation’s first line of defense, always being ready to be the first to fight.

The Nature of Learning

1. Brigadier General Lorna M. Mahlock, email conversation with Major General William F. Mullen III, July 13, 2019.

2. Paul Otte, compiler, *Grayisms and Other Thoughts on Leadership from General Al Gray, USMC (Retired) 29th Commandant of the Marine Corps* (Arlington, VA: Potomac Institute Press, 2015) p. 46.

3. “Gen. James Mattis: In his own words,” *San Diego Tribune*, January 20, 2013, p. A-24.

4. General David H. Berger, *Commandant’s Planning Guidance: 38th Commandant of the Marine Corps* (Washington, D.C., Headquarters US Marine Corps, July 2019) p. 16.

5. MCDP 6, *Command and Control* (Washington, D.C., Headquarters US Marine Corps, October 1996) p. 3-10.

6. MCDP 1, *Warfighting* (Washington, D.C., Headquarters US Marine Corps, June 1997) p. 3-6.

7. *Ibid.*, p. 1-6. “All actions in war take place in an atmosphere of uncertainty, or the ‘fog of war.’ Uncertainty pervades battle in the form of unknowns about the enemy, about the environment, and even about the friendly situation. While we try to reduce these unknowns by gathering information, we must realize that we cannot eliminate them—or even come close. The very nature of war makes certainty impossible; all actions in war will be based on incomplete, inaccurate, or even contradictory information.”

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8. MCDP 1-3, *Tactics* (Washington, D.C., Headquarters US Marine Corps, July 1997) p. 4-6. “Physical speed, moving more miles per hour, is a powerful weapon in itself. On our approach to the enemy, speed in movement reduces the enemy’s reaction time. When we are going through or around the enemy, it changes the situation faster than the enemy can react. Once we are past the enemy, it makes a reaction irrelevant. In all three cases, speed impacts the enemy, especially mentally, causing fear, indecision, and helplessness. Remember, attacking the enemy’s mind is a central tenet of maneuver warfare.”

9. The Boyd Cycle, also known as “the OODA loop” is a concept coined by US Air Force Colonel John Boyd used to describe a recurring decision-making cycle.

10. MCWP 6-10, *Leading Marines* (Washington, D.C., Headquarters US Marine Corps, May 2016) p. 2-6.

11. General John R. Allen, USMC, Retired, “Marine Corps Leadership in the Age of Emerging Technologies” (lecture at the Transforming the Training and Education Continuum Workshop, Marine Corps Training and Education Command, Quantico, VA, March 4, 2019).

12. MCDP 1, p. 1-5.

13. Metacognition is the awareness and understanding of one’s own thought processes.

14. Department of Defense, Defense Advanced Research Projects Agency, *Measurement of Combat Effectiveness in Marine Corps Infantry Battalions: Executive Summary* (Arlington, VA: 1977).

15. Andragogy refers to adult learning methods, techniques, and principles.

Notes-2

16. Beth A. Rogowsky, Barbara M. Calhoun, and Paula Tallal, "Matching Learning Style to Instructional Method: Effects on Comprehension," *Journal of Educational Psychology*, vol. 107, no. 1 (2015) pp. 64–78.

17. Peter Facione, "Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction," *American Philosophical Association*, 1990).

18. Malcolm Shepherd Knowles, Elwood F. Holton III, and Richard A. Swanson, *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development* (Burlington, MA: Elsevier, 2005).

The Culture of Learning

1. Ryan Holiday, *Ego is the Enemy* (New York: Penguin Random House, 2016) p. 62.

2. Oren Harari, *The Leadership Secrets of Colin Powell* (New York: McGraw-Hill, 2002) p. 164.

3. Jill R. Russell, "With rifle and bibliography: General Mattis on professional reading." Strife Blog, May 2013 <<http://www.strife-blog.org/2013/05/07/with-rifle-and-bibliography-general-mattis-on-professional-reading/>> (accessed September 10, 2019).

4. MCDP 1, p. 8-6.

5. Captain John W. Thomason Jr., *Fix Bayonets!*, Classics of Naval Literature (Annapolis, MD: United States Naval Institute Press, 1994) p. 9.

6. Carol S. Dweck, PhD, *Mindset: The New Psychology of Success* (New York: Random House, 2006).

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The Learning Environment

1. Albin Krebs and Robert Mcg. Thomas, Jr., “NOTES ON PEOPLE; Admiral Rickover on Making Life Meaningful,” *New York Times*, National edition (May 10, 1982) sec. B, p. 6.

2. Carl von Clausewitz, *On War*, trans. Colonel J. J. Graham (London, 1962) pp. 49–50.

3. Gary A. Klein, Judith Orasanu, and Robert Caldenwood, *Decision Making in Action: Models and Methods* (Westport, CT: Greenwood Publishing Group, Inc., 1993).

4. MCDP 1, p. 4-24.

5. Richard A. Gabriel, *Philip II of Macedonia: Greater than Alexander* (Dulles, VA: Potomac Books, Inc., 2010) p. 62.

6. MCDP 1, pp. 4-21–4-22. “Another important tool for providing unity is the *main effort*. Of all the actions going on within our command, we recognize one as the most critical to success at that moment. The *unit* assigned responsibility for accomplishing this key mission is designated as the main effort—the focal point upon which converges the combat power of the force. The main effort receives priority for support of any kind. It becomes clear to all other units in the command that they must support that unit in the accomplishment of its mission. Like the commander’s intent, the main effort becomes a harmonizing force for subordinate initiative. Faced with a decision, we ask ourselves: *How can I best support the main effort?*”

7. Malcolm Shepherd Knowles, *Self-Directed Learning* (New York: Cambridge Books, 1975).

Notes-4

8. MCDP 1, p. 4-18. “Mission tactics is just as the name implies: the tactics of assigning a subordinate mission without specifying how the mission must be accomplished. We leave the manner of accomplishing the mission to the subordinate, thereby allowing the freedom—and establishing the duty—for the subordinate to take whatever steps deemed necessary based on the situation. Mission tactics relies on a subordinate’s exercise of initiative framed by proper guidance and understanding.”

9. *Ibid.*, pp. 1-5–1-6.

10. Raymond M. Kethledge and Michael S. Erwin, *Lead Yourself First: Inspiring Leadership Through Solitude* (Bloomsbury: NY, 2017) pp. 81–83.

11. TRADOC Pamphlet 525-8-2, *The U.S. Army Learning Concept for Training and Education 2020–2040* (Fort Eustis, VA: Training and Doctrine Command, April 2017) p. 29.

12. Cathy N. Davidson, *The New Education: How to Revolutionize the University to Prepare Students for a World in Flux* (New York: Basic Books, 2017).

The Learning Leader

1. President John F. Kennedy, “Remarks Prepared for Delivery at the Trade Mart in Dallas, Texas” (undelivered, November 22, 1963) <<https://www.jfklibrary.org/archives/other-resources/john-f-kennedy-speeches/dallas-tx-trade-mart-undelivered-19631122>> (accessed: September 10, 2019).

2. General Joseph F. Dunford Jr., 19th Chairman of the Joint Chiefs of Staff, “Message to the Joint Force” (October 2, 2015).

MCDP 7 Learning

3. Colonel John Boyd to the House Armed Services Committee on U.S. Military Reform After Operation Desert Storm, C-SPAN, aired April 30, 1991 <<https://www.c-span.org/video/?17753-1/us-military-reform-oper-desert-storm&start=685> [Quote happens at 11:25 time stamp]>.

4. MCDP 1, p. 3-13.

5. Ibid., p. 4-12–4-13.

6. MCWP 6-10, p. A-11.

7. Otte, p. 32.

8. MCDP 1, p. 3-8.

9. Lieutenant Colonel Daniel Watola, PhD and Commander Dave Woycheshin, PhD, eds., *Negative Leadership: International Perspectives* (Kingston, Ontario: Canadian Defence Academy Press, 2016) p. 279.

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