

21st Century Learning

Professionalizing how we train and educate Marines to sustain a competitive edge in the future security environment

by Col Joel R. Powers, USMC(Ret)

Introduction

Driven by the extraordinary speed of global technological development, the *character* of modern conflict is rapidly changing. The *National Defense Strategy* (NDS) (Washington, DC: 2018) highlights a return to great power competition in which our traditional advantages in manpower, equipment, and technology are fading. At the same time, our 38th Commandant has outlined a bold strategy to ensure we are aligned with the NDS and prepared to meet the demands of the naval fleet in executing current and future operational concepts. A key pillar of this strategy is ensuring that we have a more educated and intellectually agile force that will offset emerging peer advantages.

As our traditional advantages diminish, the importance of developing critically thinking warriors who can readily adapt to uncertainty in a rapidly changing battlespace increases significantly. All Marines, especially our small unit leaders, must be capable of exercising intelligent initiative and resilience in any situation. They must be capable of seizing and retaining the initiative or recovering from situational disadvantage faster than any opponent can exploit success. Their ability to observe, orient, decide, and act with greater speed than their enemy assumes greater relevance. These abilities are not innate and must be cultivated through learning experiences that challenge Marines to think creatively, solve problems, and exercise a reasoned bias for action.

When the Commandant noted in his planning guidance that “The Ma-

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We need ... an Information Age approach focused on active, student-centered learning ... We must enable them to think critically, recognize when change is needed, and inculcate a bias for action without waiting to be told what to do.

—MajGen William Mullen, CG, TECOM

rine Corps is not organized, trained, or equipped” to meet the demands of the future operating environment, he called for the transformation of the current way that we train and educate Marines.¹ While an Industrial Age model has served us in the past, Training and Education Command (TECOM) must lead the institutional transition to an Information Age learning model. We will develop and implement a comprehensive “21st Century Learning” framework that inextricably links training and education, enables and strengthens the tenets of maneuver warfare, and emphasizes a greater institutional naval orientation.

21st Century Learning: Adapting Training and Education to the Information Age

This transformation is a task that

will be measured in years, not months, and will require significant institutional commitment. What TECOM defines as 21st Century Learning (21CL) is our bid to make that transformation. It is designed to ensure our Marines are both critical and adaptive thinkers, but not for the sake of having smarter Marines; it is designed to hone an intellectual edge over any opponent in any domain.

21CL is the Service-level vision that describes how the Marine Corps intends to educate and train a naval expeditionary force in readiness in order to operate inside actively contested maritime spaces in support of fleet operations. TECOM defines 21CL as

a continuum of dynamic, cognitive training and education experiences centered on the learner to continuously hone an intellectual edge; it will en-

able our Marines to rapidly adapt and achieve a decisive maneuver advantage in any domain through intelligent initiative.

In addition to aligning with the NDS and meeting the Commandant's charge to transform training and education, 21CL is nested within the newly published *MCDP 7, Learning*. *MCDP 7* was published and released in April 2020 and represents the first *MCDP* released in almost two decades. *MCDP 7* closely reinforces *MCDP 1, Warfighting*,² specifically emphasizing the key relationships between training, education, learning, and our maneuver warfare philosophy. A key theme throughout *MCDP 7* is its emphasis that a commitment to lifelong continuous learning is central to mastering the profession of arms and to sustaining an intellectual edge in an age of accelerating change.

A Framework for 21CL

Implementing the changes required to transform training and education is complex. TECOM has created an implementation framework that is integrated with CMC's priorities and driven by what we consider "drivers of learning culture." The drivers of learning culture are capabilities we seek to achieve through focused investment, policies, actions, and activities across the training and education enterprise that result in a learning environment equal to the operational environment. The critical capabilities we seek to achieve are:

- *Learner-centric experiences.* A continuum of learning opportunities that is traceable and adaptable to the unique requirements of each learner.
- *World class learning leaders.* Highly skilled teachers, coaches, mentors, trainers, facilitators, exercise designers, curriculum developers, and small unit leaders who directly influence individual Marine learning.
- *Total learning architecture.* An interoperable, enterprise-level architecture that enables, validates, and tracks a continuum of personal and collective learning experiences; enhances individual development, unit readiness, talent management, and rigorous assessment.

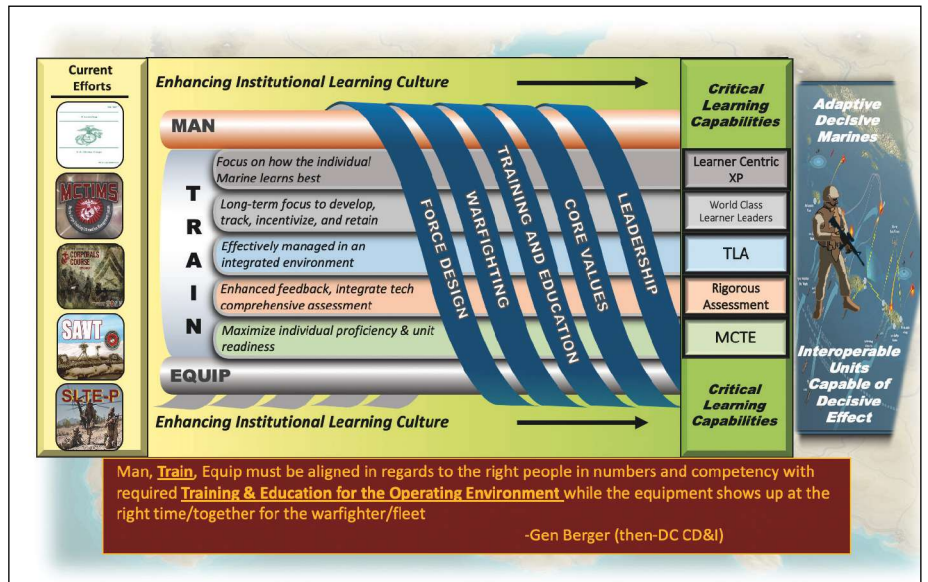


Figure 1.

- *Rigorous assessment.* Supports identification of learning trends and informs corrective DOTMLPF (doctrine, organization, training, material, leadership, personnel, facilities) actions and solutions to increase lethality, active adaptation, and unit readiness.
- *Marine Corps training environment.* The full complement of Marine Corps capabilities to plan, prepare, execute, and assess training; includes the ability to integrate live, virtual, and constructive systems in all domains.

The critical capabilities can be directly linked to supporting the Commandant's Planning Guidance priority focus areas: *Force Design, Warfighting, Training and Education, Core Values, and Leadership.* (See Figure 1.)

The implementation framework also highlights the elevation of "train" as an equal function to "man" and "equip" to meet the Commandant's guidance of ensuring those functions are aligned and sufficient to the operating environment. The outputs of this framework are sim-



The ground training and readiness system is being completely revised. (Photo by LCpl Isaiah Campbell.)

ply adaptive and decisive Marines and interoperable units capable of fighting and winning in a peer threat environment. While TECOM's transformation efforts span both training and education, the focus of the remainder of this article will highlight the educational component of the individual Marine—specifically learner-centric experiences, world class learning leaders, and the total learning architecture.

The Learner and Learning Environment

Creating learner-centric experiences throughout the continuum of entry-level training, formal schools, PME, and within the “academic whitespace” of a Marine's career is a primary pillar of 21CL. These “experiences,” as we define them, must go well beyond our legacy construct of brick-and-mortar schoolhouses slogging through Power-Point classes with the goal of parroting back learning objectives at the end of

the week. The learner centric experience within 21CL focuses on teaching Marines *how* to think more than *what* to think. It is also an understanding of the *way* a Marine learns best and how to tailor the content and delivery to address his or her needs. Specifically, learner-centric experiences must:

World class learning leaders are a center of gravity for any learning culture.

- Incorporate outcomes-based learning, focused on the educational outcome for the learner, vice content to memorize.
- Incentivize learning and learning leaders.

- Place a premium on group problem solving and experiential learning.
- Include on-demand, interactive, self-guided, and tailored content.
- Provide learner feedback.
- Record learner experiences, in real-time, via comprehensive training and education management systems linked to readiness reporting and talent management processes.

These tenets may seem farfetched, but we are working on them now. Planning teams within TECOM are developing ways to ensure academic rigor in our PME programs and career-length PME models that will support continuous learning. The ground training and readiness system is being completely revised to ensure all tasks are grounded in appropriate doctrine and include relevant background material such as vignettes and wargaming material to make training and education complementary and interactive. Further, multiple pilot programs are

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underway across our learning centers to explore new technologies, digital content, and delivery methods to support learner-centric experiences. Investments in this area include support to wargaming content and delivery, collaborative tools, and modernizing classrooms.

World class learning leaders are a center of gravity for any learning culture. To that end, 21CL seeks to build such leaders—not just our instructors but exercise designers, curriculum developers, teachers, coaches, and unit leaders at all levels. As role models, all contribute substantively to our learning environment and culture. These are leaders who need to be familiar with adult learning methodologies, able to create learner-centric environments, and comfortable with a full range of modern content and delivery methods. Building learning leaders will require commitment to incentivize those Marines with the attributes we seek. As the Commandant stated in his planning guidance, it is “essential to select the right Marines as instructors, trainers, and educators.”

Like learner-centric experiences, efforts are underway now to develop learning leaders. These include transforming the Train the Trainer School, increasing the capacity and quality of our Innovative Instructor Workshops, and introducing new technologies for the field and classroom. Future investments will include increased capacity and quality of instructor development, modernizing key occupational specialty instruction for cyber, space, and electronic warfare—as well as developing support packages for managed on-the-job training.

Total Learning Architecture

Developing adaptive, decisive Marines through world class learning leaders and an environment of learner-centric experiences only works with a sufficient digital architecture to support it. Another critical capability of 21CL, and a critical enabler to learning, is the total learning architecture. Simply put, the total learning architecture is a framework that enables interoperability among learning technologies and systems that provides:

The essential thing is action. Action has three stages: the decision born of thought, the order or preparation for execution, and the execution itself. All three stages are governed by the will. The will is rooted in character, and for the man of action character is of more critical importance than intellect. Intellect without will is worthless, will without intellect is dangerous.

—Hans von Seeckt

- Access to on-demand learning content.
- Storage and analysis of learning data for both individual Marines and units.
- Rich data for performance assessment.
- Enables talent management functions.

The major components of the total learning architecture include the e-Learning Ecosystem and the Marine Corps Training Information Management System. The e-Learning Ecosystem replaces MarineNet and other legacy education functions within a cloud-based environment that includes education technology, authoring tools, analytics, and digital content. The Marine Corps Training Information Management System is a legacy training management system that is in the process of modernization to ensure it includes structured data that is discoverable and exposed to analytic tools.

In the future, all learning experiences will be tracked and recorded in the total learning architecture through a Marine’s unique learner profile. Data collected for individual learners can help inform talent management functions, tailor future learning experiences, and assess a Marine’s competencies. In this way, the learning architecture enables career-length, continuous learning for Marines based on their occupational specialty, experience, and competencies.

Way Ahead

21CL is an investment in the development of our Marines and in the warfighting readiness of the Marine Corps.

It will require sustained institutional commitment to yield results. If we are successful in implementing this institutional framework, our Marines will have the advantage of a career-length continuum of learning experiences that includes on-demand and interactive content, experiential learning through interactive groups within their community, and digital training content that integrates historical and interactive educational content—fully supported by interoperable technologies that enable access, data analysis, and assessment. This is the intellectual edge.

The transformation to a 21CL framework has begun. The initial efforts to enhance our learning culture and the investments we are making are coherently mapped toward achieving an adaptive future learning environment and meeting the Commandant’s intent. We have embarked on a path to inextricably link training and education in complementary ways, enable and strengthen the tenets of maneuver warfare, and emphasize a greater institutional naval orientation across the force. The time to act is now.

Notes

1. Gen David H. Berger, *38th Commandant’s Planning Guidance*, (Washington, DC: July 2019).
2. Headquarters Marine Corps, *MCDP 1, Warfighting*, (Washington, DC: 1997).

