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The subject of Talent Management in the Marine Corps has become the focus of senior leaders as new challenges in Force Design and future employment require Marines to be multi-faceted in a distributed area of operation. General Berger highlights in his Commandant ' s Planning Guidance (CPG) that " everything starts and ends with the individual Marine, " and that the " retention of the most talented individuals within the institution is critical. " This concept of manpower being the source of our strength and that the management of our most talented individuals leads me to question some of our current policies of talent management. This analysis will present the dynamics and complexities of correcting an antiquated education system and how these changes transcend just M&RA and provides the Marine Corps potential for retention that will propel the Marine Corps into the 21st Century.

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MASTER OF MILITARY STUDIES

Maximizing the Entry Level Pipeline to Sustain Talent Management goals in the 21st Century
SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

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Preface

This subject of Talent Management in the Marine Corps starts at our entry level training pipeline. I spent approximately 18 months as the Executive Officer at Marine Detachment Ft. Lee during the years of 2015-2017. During this time, the constant challenge of Marines in a holding status, that has been labeled Marines awaiting training or MAT, prior to earning their military occupational specialty seemed a waste. Therefore, I wanted to take a deeper look at what we are doing institutionally to close the gaps and if all out alleviation of MAT is not possible how do we make it manageable so that we “sustain the transformation” and provide trained, motivated young Marines to their first unit.

I would like to personally thank the following individuals for their time and contribution to the research and structure of this paper. First and foremost is Dr. Brad Wineman for providing me structure, constructive criticism, creative lens to look at my research and focus. From the Engineer School house at Courthouse Bay, I would like to thank Greg Simpson and Scott Moore. From Marine Corps Detachment Ft. Lee, I would like to thank Nick Matesic. From School of Infantry West, the Commanding Officer, Col Moran. From Training and Education Command I would like to thank the amount of time and information that I received from Col Quehl, SgtMaj Siaw, Mr. Jose Rovira and LtCol Backlund. Each of these individuals gave time and information and a deep concern for the improvement of the Marine Corps entry level pipeline.

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The subject of Talent Management in the Marine Corps has become the focus of senior leaders as new challenges in Force Design and future employment require Marines to be multi-faceted in a distributed area of operation. General Berger highlights in his Commandant's Planning Guidance (CPG) that "everything starts and ends with the individual Marine,"¹ and that the "retention of the most talented individuals within the institution is critical."² This concept of manpower being the source of our strength and that the management of our most talented individuals leads me to question some of our current policies of talent management.

The Marine Corps defines Talent Management as "the institutionally faithful and transparent manpower processes and policies, from recruitment through separation or retirement, where each Marine is provided the opportunity, mentorship, and guidance to develop and utilize their individual abilities and continue to effectively serve, based upon their demonstrated performance and future potential, in accordance with the needs of the Marine Corps,"³ from MCO 5250.1 Human Resources. By definition, this puts the responsibility of Talent Management in the hands of Manpower and Reserve Affairs (M&RA) Department of the Marine Corps, however, talent management goes beyond just recruiting, promotion, assignment and retention – it's about getting the most out of an individual and that their service/work/talent is maximizes for the USMC.

To sustain talent management goals in the 21st Century the Marine Corps must look at the overall experience that a Marine has during their four-year enlistment. This requires an honest look at those areas that are firmly under the control of the USMC and this starts with the Marines indoctrination into the Marine Corps and their journey through the schools that make up the entry-level pipeline as this is he or she first impression of the environment and culture that represents the Marine Corps.

The current four-year enlistment structure has limitations and time is most vulnerable. These first months are critical to the entry level pipeline's role in efficiently educating and transitioning Marines to the Fleet. The Marine Corps entry-level school pipeline sustains sizable periods of time that Marines are awaiting future classes and time and motivation slide from the Marine Corps control. This analysis will present the dynamics and complexities of correcting an antiquated education system and how these changes transcend just M&RA and provides the Marine Corps potential for retention that will propel the Marine Corps into the 21st Century.

Marines Awaiting Training

Marines Awaiting Training or MAT is a common acronym amongst entry level schoolhouses across the Marine Corps training pipeline. It is a term that has become synonymous with the military occupational specialty (MOS) producing schools. Marines awaiting training is just that, Marines sitting idle at the schoolhouse. These students have arrived prior to the start of their assigned class and the schoolhouse does not have the capacity to start them sooner. During MAT, the Marines receive minimal supervision, physical fitness training and close to no educational instruction. For example, a PFC arrives at Ft. Leonardwood on 1 June, but his/her class date is not till 1 September. This equates to roughly 90 days of idle time for the students as oversight from the instructor cadre is limited since the staff is designed to support classroom instruction exclusively.

The broader Marine Corps oversees eight Marine centric schools and 12 detachments (multi-service schools) that are responsible for the implementation of MOS periods of instruction (POI). Each one of these institutions approaches their MAT population differently and executes the supervision, lesson plan and desired end state from a localized perspective. Typically, it begins when Marines arrive from Marine Combat Training (MCT) to their MOS school in the

entry level training (ELT) pipeline is the final process that qualifies the individual Marine before being transitioned to the Fleet Marine Force (FMF). These schoolhouses are the capstone in the ELT pipeline and build on the foundation that has been so carefully shaped throughout their indoctrination. As the Marines arrive at their intended MOS (IMOS) schoolhouse they have completed 12 weeks of bootcamp and 6 weeks of MCT. These first two schools are focused on transforming these individuals from recruits to Marines while reinforcing the Marine Corps warrior ethos. The sustainment of this transformation is paramount, and this is where MAT detracts from institutional goals.

Reasons for MAT

MAT happens for three main reasons. The first is that 50% of all Marines that are recruited each year enter the pipeline in just four months of the calendar year. The understanding of this process and the answer to why this continues to challenge the Marine Corps begins with JJAS or June, July, August, and September. These four months contribute over 50% of the total recruits contracted for a given year. Historically JJAS is critical for processing and delivery of the necessary numbers needed to fill the formation. These months coincide with the end of the high school academic year and are viewed by the Marine Corps as a vital window where young adults are making lifetime decisions and this highly impactful time period for young adults must be maximized by recruiting, which drives the ELT pipeline. A study done by the Center for Naval Analysis (CNA) clearly framed the importance of getting the Marines signed and shipped without delays, “Pool orphans” (those who do not ship to recruit training until after their recruiters have transferred from recruiting duty) have significantly higher attrition while in the delayed entry program (DEP).”⁴ This point is not all encompassing, but it highlights a major concern for the Marine Corps. That concern is the longer it takes for them to

get a recruit into the pipeline once signed, the higher probability that other factors can begin to influence their success. The CNA study goes further by looking at two different time blocks, FY05-08 and FY09-13, and concluded “that recruits who ship in the spring (FMAM) attrite at the highest rates; those who ship in the fall (ONDJ) attrite at the next highest rates; and those who ship in the summer (JJAS) attrite at the lowest rates. These attrition differences are consistent with those for men; however, we note that the shares of women that were shipped in the summer (when attrition is lower) are smaller than the corresponding shares of men.”⁵ Both confirmed that recruits that developed during JJAS have significantly lower attrition rates than those shipped in Oct-Jan and Feb-May and in some cases by as much as 10 percent.

The Marine Corps system for creating Marines is methodical and has not changed dramatically in some four decades, as stated by the Marine Corps History Branch “The past forty years have witnessed the continuing scrutiny of the Marine Corps recruit training program. Concerted efforts have been made to eliminate the excesses that had crept into the system over the years while at the same time retaining those elements of the recruit training experience that have produced a highly trained and motivated fighting force.”⁶

Higher numbers are easier to manage at the recruit depots and MCT for multiple factors. One is that the focus of these training platforms is to create unity and teamwork through small unit framework. This is the largest factor, as it allows for much larger student to instructor ratios. At both the recruit depots and MCT the instructors can accommodate larger formations than the IMOS schools. The IMOS schoolhouses direction is more individualized, and detail focused. There is still an aspect of attrition for those that do not prove competent, but the Marines have already proven themselves worthy of the title US Marine, whereas the recruit depots and MCT has a degree of necessary attrition to secure the most qualified, committed personnel.

Second the MOS schoolhouses do not have the capacity to create additional classes or the instructors to manage the additional Marines. Each schoolhouse has a requirement to produce a set number of qualified Marines each year to support the FMF. The number that they are required to produce directly influences how a schoolhouse is resourced for that fiscal year (FY). This includes quantity and rank of instructors, the type and function of their facilities, training aids and equipment, budget, and these are all items in direct competition with the FMF during a resource constraint environment. Each of these items has a direct impact on the ability or inability of the schoolhouse to resource necessary requirements during periods when higher numbers of students are on deck than normal. As a Marine moves through the ELT pipeline they are inputted into a Student Registrar that provides Training and Education Command (TECOM) in stride visibility to the MOS schoolhouse for each student.⁷ That student's name is associated to a Training Input Plan (TIP) per MOS and associated to a cohort and class. Simply put, it assigns a Marine to an available school seat within an available class. The class has a start and end date and provides throughput data that synchronizes multiple systems concerned with MOS development and filling FMF requirements. The cohort and class provide the Marine Corps the ability to track individuals, but it also provides the schoolhouse with accountability of who is on deck. Though systems are in place to provide IMOS schoolhouses with visibility of inbound students, it does not change the status of their formation.

The third problem is the constant management of multiple processes that track the status of Marines in the pipeline are not supervised from the top and bottom to ensure optimization. This responsibility of supervision of the Recruit Distribution Model (RDM), Manpower Management Integration Branch (MMIB), cohort distribution and schoolhouses are a collective effort. The overall management of the system requires continuous reconciliation and validation

that Marines are in the proper cohort and MOS as discussed above. During the reconciliation and validation of the students, if an irregularity is observed it is important that these individuals or groups are reclassified into an MOS with open class space and provided opportunities in a different MOS. This process is not difficult, and only the MOS's with lengthened MAT times, identified by the schoolhouses, require reevaluation. Individuals that are discovered to have a lengthy MAT period upon their arrival at the schoolhouse need to be the target audience for the revalidation and potential redesignation, to a different MOS, as there is no space in the current class and no capacity to expand the schedule. A MAT status can be as short as a couple of days or as long as 243 days in certain MOSs.⁸ The term "sustain the transformation" becomes increasingly difficult as Marines linger at schoolhouses unable to preserve the same level of oversight as recruit training and MCT. This transformation is difficult to create and perhaps more difficult to maintain and MAT is in competition with the Marine Corps control of talent management. If the recruiting model and necessary timeline for establishing the pipeline is unable to change then the Marine Corps next option is to look at how to maximize this time in MAT to prepare these Marines for the rigors of service and sustain the transformation.

The Recruit Distribution Model (RDM) requires that the Marine Corps produces approximately 38,000 new Marines a year to replace the Marines that leave the USMC due to end of active service (EAS), administrative separation (ADSEP), injury and those that did not get reenlisted for numerous other reasons.⁹ This equates to approximately 19,000 Marines moving through the ELT pipeline through the Marine Corps peak recruiting months, June, July, August and September, following the end of the high school year. The RDM and ship dates are inflexible and unable to be adjusted to create an even spread of numbers throughout the year, so the management of the pipeline has become the focal point. This management process starts and

finishes with a holistic review of the RDM, MMIB, Training Command (TCOM) Production Management/Manpower and Cohort distribution of MOS's processes. MARDET Ft. Lee Information Paper, authored by Mr. Nick Matesic, states that through a "comprehensive evaluation the Marine Corps will glean astronomical benefits. By changing how we "do business" IRT the RDM, MMIB and Cohort distribution of MOS's processes we also can effectively identify where we can maximize a Marine's time on contract, while minimizing the length of time each Marine spends in MAT. These actions will shorten the training pipeline and lessen the strain on Commands as they currently struggle with the management of large and long-lasting MAT populations."¹⁰ However, the management of manpower is only one variable of the problem. The educational system itself must receive thorough scrutiny and evaluation of its strategy, policies, and path.

ELT schoolhouses & Individual Marines

This section will focus on three key areas: 1) the Intended MOS (IMOS) schoolhouse and the options available to mitigate MAT, 2) the direct and indirect impacts on the individual Marine's ability to sustain the transformation and 3) the USMC's ability as an institution to maximize a Marine's four-year enlistment and the impacts that MAT can have on retention.

Marine Corps Detachment (MARDET) Ft. Lee oversees eleven IMOS producing schoolhouses and averages over 1000 students on deck throughout the year. In 2018, the MARDET collected monthly differences from IMOS student to MAT for a twelve-month period. Mr. Matesic further expanded in the Position Paper, as he noted that, "The MARDET maintains a sizeable MAT population throughout the year.... The winter months in particular coincide with the greatest on hand MAT numbers, and in the past, it has proved challenging keeping the population engaged."¹¹ A MAT platoon of any size requires capabilities that are not allocated to

the schoolhouse Table of Organization (T/O) or staffing. This requires the Commander of the Detachment or schoolhouse to accept risk in his or her instructor cadre and pull from their T/O of instructors to provide personnel to supervise and lead this population. The challenge of using these instructors is further exacerbated as many of the instructors are already burdened with collateral duties that focus on keeping the schoolhouse operating in conjunction with classroom duties.

Going into a MAT status interrupts the overall ELT pipeline and depending on the length of the MAT period, it can erode the transformation that the Marine Corps has fought to create with each individual Marine. Each month that a Marine remains in MAT status is a month that the Marine Corps loses on their initial four-year contract. The inefficiencies that the institution has with the timing of available school seats directly impacts the time a Marine has in the FMF and could be the difference between getting one or two deployments out of this first contract.

Moreover, the Marine Corps labors to retain the absolute best across the full spectrum of MOS's as they are competing with the civilian sector, other services and what the overall experience was for the individual Marine during their first four years. Currently, there is data to suggest that the longer a Marine stay in a MAT status the more likely they are to have disciplinary action. The loss of motivation focus and a purpose leaves these Marines vulnerable, with the potential to losing them from a retention standpoint.

Training and Education Commands framing of the problem

The MAT dilemma has not gone unnoticed by the high Marine Corps headquarters. Training and Education Command (TECOM) has examined the challenges that face the IMOS schoolhouses and has for years considered two main solutions to address the issue of MAT. Their first solution is to reduce the time that a Marine spends at the schoolhouse. This would

require the curriculum developers at each of the schoolhouses to focus the period of instruction (POI) only on what the Marine Corps believes to be the most basic functions and eliminate everything else. All items that were taken out of the POI would now be the responsibility of the operating forces to complete. This responsibility to complete additional training would require units to complete additional mission essential tasks (METs) which could negatively impact unit readiness overall with the additional time and resources needed to accomplish this effort. This burden falls on a unit's training exercise employment plan (TEEP) to generate the same quality of Marine has advantages and disadvantages. The benefit is that Marines move through the ELT pipeline more rapidly and can be integrated into their gaining unit's formation. This provides stability to the individual Marine as they would have less time in MAT and more time integrating with their unit. However, these additional requirements necessary to address what the schoolhouse does not cover would slow unit level training and lengthen the time that is required to be certified as deployable.

The second solution is to resource the schoolhouses to handle these periods of high student populations. Resourcing the schoolhouses has multiple friction points, none of which are quickly correctible. Personnel is the first major challenge as the same Marines that are filling the instructor billets in the schoolhouse are also in high demand in the FMF. The instructors range from Sergeant to Master Sergeant and building quality instructors takes time. This is only part of the problem. It is not just the investment of time in creating a quality instructor but also the "robbing Peter to pay Paul" dilemma of Manpower overall and spread loading quality Marines in the FMF or in the schoolhouse. The current Manpower model does not allow an even fill to both! As a Marine arrives at the schoolhouse, they do not immediately begin instruction duties. They must first complete a comprehensive instructor preparation program designed to instill the

structure required to instruct the future of the Marine Corps. Funding is the second facet and the Marine Corps has taken positive steps to ensure funding for the immediate future is available with investments into a layered approach that will be discussed in detail.

The last challenge is that the majority of MOS producing schools for the Marine Corps reside in the Interservice Training Review Organization (ITRO) framework.¹² Ft. Lee, Ft. Leonard Wood, and Ft. Sill are all examples where Marines train alongside members of other services in the ITRO phase of the POI. These multi-service schools reside on other services bases and the cadre of instructors is provided by each of the services and certain parts of the POI is taught by a Marine and other sections are taught by the joint instructor team. The POI is an additional major hurdle to overcome with a multi-service schoolhouse. Each POI is developed jointly and drives each services calendar which creates challenges for both of TECOM's solutions to resolving the MAT paradigm. This would require the curriculum developers to create a POI that is strictly based on Marine instructors, as the shorten schedule would not comply with established courses. This vacuum created by the loss of the other services instructors is substantial and would require extensive research to validate our propensity to manage this burden. These are challenges that TECOM cannot overcome alone and why MAT continuous to be a formidable problem for the Marine Corps ELT pipeline. TECOM has adjusted its planning guidance with the understanding that traditional methods have created an institution that is not flexible and is still manpower intensive. To alleviate the manpower burden TECOM has instead outlined a layered approach to updating its education system and using 21st Century methods as its focal point.

TECOM Solutions

The impact that MAT is having on the ELT schoolhouses, the individual Marine and his/her first term enlistment are problematic and potentially stress the Marine Corps ability to maintain highly qualified Marines. TECOM is aware of these issues, has examined shortfalls, and continues to address the ELT pipeline. Recently they have explored a potential new solution. It utilizes the 21st Century Learning concept that focuses on four key areas that address antiquated formal learning centers techniques with modern methods that engage the tech centric generation. These new capabilities provide the Marine Corps with a system that if implemented properly positions them to positively impact the schoolhouse, Marine and retention of the most qualified. The quality of the analysis done by TECOM and the overarching goals align with talent management expectations, however there are areas that open themselves to debate with policies and implementation. 21st Century Learning goes against standardization and will require the Marine Corps to allow formal learning centers more freedom with POI development, assessment, and ultimately the implementation of instructor/student interaction. The Marine Corps has overcome greater challenges throughout its history and the management of the ELT pipeline will require the same ingenuity to pivot to 21st Century Learning.

21st Century Learning

The concept of 21st Century Learning and how a modern look at quality, efficiency and availability will propel the Marine Corps into a new era is a fresh and proven system to improve all facets of the current educational pipeline. Currently, TECOM has broken 21st Century Learning in five critical capabilities. This review will look at four of the five that pertain to MAT. 21st Century Learning is a more open approach to creating solutions across the enterprise and TECOM has developed critical capabilities that are forged from internal and external collaborations. The four critical capabilities that were observed are Learning Centric

Experience, World-class Leader Learners, Total Learning Architecture and Rigorous Assessment & Evaluation. Each of these areas has a specific focus, as no one solely fixes the MAT problem, but they are built to mutually support as a collective system. These critical capabilities benefit from comprehensive studies by civilian organizations that look at how to best prepare instructors to implement the POI and self-paced learning using the latest technologies in hardware and software. The civilian sector calls this information and communication technology or ICT as Helen Boholano discusses in her article on 21st Century learning that “The school systems must be outfitted with a prerequisite of ICT resources, and curricula must be designed to promote a collaborative learner-centered environment to which students will relate and respond.”¹³ She further states the importance that “as ICT is integrated into classrooms, preservice teachers must have professional development in utilizing”¹⁴ these system to maximize return on investment.

The first of these critical capabilities is the Learning Centric Experience (LXP). TECOM’s stated that “Learner-centric experiences brings to center the learner, their individual needs related to training and education, and the critical role in the career length learning continuum. This approach allows for a decentralized method to training/education and particularly enables the instructor flexibility to teach in more than one prescribed way so that the instructor puts the learner as the primary focus for all actions. “LXP establishes a holistic approach that encompasses supporting policy, development and management of world-class learning leaders, a total learning architecture, effective content delivery and distribution, and the rigor to ensure that Marines are learning both how and why to think about complex problems. Overall, it will provide a continuum of learning encounters that are traceable and adaptable to the unique requirements of each Marine.”¹⁵ The training and readiness (T&R) manual clearly identifies the standards that each Marine must be trained to and LXP is viewed as the vessel to

capture those standards. The LXP is the overarching theme behind Training and Education Command (TECOM) revitalization of the ELT as stated in the LXP baseball card, “Current LXP are antiquated and discorded, and do not maximize technological advancements to rapidly increase, maintain, and achieve collective readiness and lethality.”¹⁶ The baseball card provides inputs into policy, technology, and instructor responsibilities to increase the above highlights and expands into each of the critical capabilities that defines the LXP. These critical capabilities can be explained as compounding interest, an area layered system or defense in depth that build off one another. Each concept has a specific role and must carry its weight for the system to be successful.

The second critical capability is the creation of World Class Leader Learners (WCLL). The foundation for the WCLL is the understanding that all of the instructors that are being chosen, bring a wealth of knowledge from their own real-world Marine Corps experiences to each of the lessons. This real-world experience can drive contextual learning. TECOM emphasizes “World Class Learning Leaders are highly skilled teachers, coaches, mentors, trainers, facilitators, exercise designers, curriculum developers, and small unit leaders who directly influence the learning of individual Marines within a dynamic and adaptive learning continuum.”¹⁷ The goal of the program is to specifically address the creation of instructors that understand 21st Century Learning techniques and that they are prepared and equipped to facilitate learning through multiple forms or methods to include updates in technology.

TECOM has identified four main areas of focus as they understand that their instructors don’t come from an education background and require instruction themselves to become proficient in WCLL. The first area of focus is Innovative Instructor Workshops (IIW). TECOM’s goal is to have IIW’s established as faculty development with the schoolhouses and in

FY20 they trained 140 instructors.¹⁸ Their goal is that by the end of FY21 to have trained 360 instructors. These IIW's do not do away with the train the trainer (T3) programs but supports the T3 transformation. Train the Trainer School (T3S) is the second focus. T3S goal is to "Transition Formal Learning Centers (FLC)s from industrial age to information age."¹⁹ The T3S's foundation forms the standardization of the program so that instructor development is the same throughout TECOM.

One of the greatest challenges that each of the schoolhouses confronts is the realization that they only have an instructor for three years. In three years, the schoolhouse curriculum developers and academic officers must put the transitioned instructors through a rigorous T3S for that Marine to be classified as an instructor. This process commonly consumes the first three months before that individual instructor is provided back to the schoolhouse to then start to learn lesson plans and become comfortable with the POI. TECOM has proposed Table of Organization/Equipment Change Requests (TOECR) that are pending to produce instructor Military Occupational Specialty (MOS) and associated billets. Identifying key instructor billets and associated MOS will facilitate "right Marine for right billet,"²⁰ and professionalizes position. This focus on instructors is crucial to maximizing or developing capacity at each of the schools as they fight for finite resources. Instructors that are prepared and equipped to facilitate learning through multiple forms or methods to include updates in technology provide a solution for the schoolhouse to use to solve problems with MAT. An example of how instructors become force multipliers can be captured utilizing self-paced learning. Online virtual classes have the potential to reach a MAT population. The student would require access to a computer lab or an issued tablet or laptop to sign in. Self-paced classes would allow the student to watch videos, be tested at the completion of each section and record grades in the system. One instructor would

now have the capacity to reach much higher numbers than the prescribed student to instructor ratios that are required for lecture-based instruction. This would incentivize students to move through classwork, with the potential to complete foundation classes, can now be managed more efficiently and with immediate feedback from an instructor that is managing multiple virtual classes with a now engaged MAT population. As discussed in LXP, the final step is policy. Policy will address allowing the WCLL to put the student first and maximize learning objectives and technology as discussed in the next critical capability.

The third critical capability comprises multiple areas that penetrate the challenges that the Marine Corps is currently having with MAT. MCDP-7 states "...the Marine Corps must be a more lethal, thinking force that fosters continuous personal and organizational learning based on enduring principles".²¹ The Total Learning Architecture (TLA) is a tangible look at access to systems and resources, to the IMOS infrastructure and delivers access to 21st Century Learning for Marine students. TECOM stated that "the systems used to establish the TLA are Marine Net, the Marine Corps Training Information Management Systems (MCTIMS), Marine Sierra Hotel Aviation Readiness Program (M-SHARP), and various M&RA information management systems. These systems form the nucleus of the TLA and capture data through injects such as, training exercises, training devices (SIM's, VR, etc.), small devices (laptops, tablets), and assessments."²² This is the first program that actively highlights MAT and provides depth to how TECOM will address MAT.

The TLA starts with improvements to MCTIMS as TECOM moves this legacy system from server based to cloud based by FY23. MCTIMS 2.0 looks to come online in FY22 with demonstrations of the system prior to being released on a cloud-based system the following year. This upgrade to MCTIMS 2.0 provides the Marine Corps the following features "reduced

MCTIMS maintenance costs, easier integration of TLA, improved readiness reporting, informs a Learner Record Store (LRS) ISO talent management efforts and predictive training tools.”²³ The modernization of MCTIMS is a massive step in the right direction for the Marine Corps. Most of these items that are outlined directly impact units outside the ELT pipeline, but the focus needs to be on the cloud-based capabilities and integration of TLA tools for the students. TECOM’s goal with this program, specifically for students, is to allow 24/7 access to the curriculum no matter where they are in the pipeline. The impact that 24/7 access can have on self-paced learning is profound and should not be understated.

The second LOE is the eLearning Ecosystem that focuses on software and the development of a Virtual Learning Environment (VLE) that, "leveraging existing lines of communication with external organizations and learning institutions. The VLE is an enhancement of MarineNet to provide more than just self-paced courses to Marines. The VLE delivers MarineNet Video Services (MVS) to all units and schools enabling 24/7 access to training videos.”²⁴ Self-paced learning has many positive applications that can be directly applied to the MAT problem. Now through Moodle and the installation of upgraded Wi-Fi services in the barrack, classrooms and common areas, instructors can engage students without having to see them in person. This opens a host of opportunities for schoolhouses to implement training while Marines are waiting in MAT. Further expanding on the eLearning Ecosystem is the need for IT infrastructure that can support and accelerate, rather than hinder, the lines of communication. TECOM approved a Urgent Needs Statement (UNS) by the Commanding General in FY20 to “identify connectivity at the enterprise level”²⁵ to address two areas. First connectivity problem is purely based on the need for faster speeds and network access. The second is providing access to classes that Marines can do without a Common Access Card

(CAC). These two areas are basic fundamentals for incentivizing Marines in the pipeline to get ahead. Hardware is the final challenge and one that TECOM has secured funding for procurement. It is unclear as to the number and the date that devices will begin being issued to the Marines, but the thought process is to provide smart devices (i.e. tablets) to the students allowing them now to access all these new systems. Thorough and comprehensive problem framing is paramount. TECOM has established working groups (WG) inside the Marine Corps, across the Department of Defense (DoD) and with civilian institutions to ensure transparency and attention to detail in this plan. This thought process speaks volumes for the priority that 21st Century learning has to TECOM's leadership and the investment that is being leveraged to meet a new era of Marines.

The fourth critical capability is Rigorous Assessment & Evaluation (RAE). This is the program that the Marine Corps will utilize to verify their return on investment. The RAE uses after actions reports (AAR) from the FMF to evaluate the impact that these educational investments are having on “the effectiveness of training and education at all levels with the necessary feedback to reinforce positive trends and reverse negative trends.”²⁶ This feedback will provide schoolhouses a venue to address issues with ELT, to include MAT, and assess best and worst practices between FLC's. RAE has four critical areas that it uses to capture data: collections, analysis, action, and feedback. These critical areas allow RAE to “inform decision making, effective prioritization and allocation of resources, identification of potential causal factors for identified deficiencies, enable focused corrective action, and ultimately allow for readiness predictability.”²⁷ Evaluations of Marine Corps Combat Readiness Evaluation (MCCRE) and Service Level Training Exercises (SLTE) are examples of opportunities for RAE to collect data and identify trends. The FLC's need to be provided the same opportunities to

broadcast trends so they can be corrected instantly and professionally through a Training Command cloud-based system specific to ELT. Standardization of training at MCCREs and SLTEs weighs on the quality of the data that is collected by the instructors during these events and shapes the feedback provided to TECOM. This will be a Service wide data repository as the Marine Corps transitions to a cloud-based system. This will allow for greater dissemination of information across the Marine Corps. In addition, TECOM sees positive implementation of integrated technology into the lessons learned process. Particularly in providing tablets to Tactical Training Exercise Control Group (TTECG) in 29 Palms during SLTE. The tablets would allow instructors on the spot corrections of trends, access to best practices and lessons learned data. RAE is the critical component that ties together the other critical capabilities. Trends and issues in the education system now “through a collaborative effort with subject matter experts from TECOM, the Fleet Marine Force, and Headquarters Marine Corps, will conduct an overview of the trend; conduct root cause analysis – what caused the trend and why; bin recommended solutions into DOTMLPF pillars; and forward recommendations via the appropriate governance boards for action.”²⁸ The critical capabilities that TECOM has outlined for the Marine Corps is not an overnight endeavor and some of the areas will still be in the setup phase through FY23. However, these are substantial and credible efforts to revamp the ELT pipeline as well as the ability to meet the Commandants guidance for education milestones.

Analysis of TECOM Programs

The Marine Corps and more specifically TECOM has laid out a multifaceted plan to address MAT and in turn provide a better product to the FMF. Their plan does not focus on one single problem but understands that to achieve the greatest influence on our students they must make changes and improvements to instructor training, technological advancements in hardware

and software, and bringing the student in the center of the learning continuum. All of these measures have merit and if executed simultaneously would have profound results on Formal Learning Centers (FLC) MAT populations, but there are significant issues that open the debate on roll out of TECOMs new plan. The functional areas of manpower, facilities/infrastructure, technology, and the ability for the Marine Corps current system to pivot conjure skepticism in the USMC capacity to execute this plan as designed. The following analysis of TECOMs program will analyze how each of these programs is viewed and where inherent challenges will be identified.

There is not any one problem greater than the other as they are all major undertakings and one without the other provides diminishing returns. Manpower as stated previously in this paper is a massive project and one that holds little promise that it will get everything as it is designed in WCLL. The WCLL outlines the process and suggestive timeline that it will take to begin creating WCLL, but fails to address what steps MMIB is taking to source the instructor requirement and support the creation of a new instructor MOS. There is a finite number of individuals in a particular occupational field and as laid out by the 2030 Force Design these fields are not growing and in many cases are being reduced. This puts further emphasis on resources for the education of the instructor. It is not enough for instructors to merely understand a lesson plan and be able to lecture.

For 21st Century learning to be maximized the technology that is provided in the classrooms or through the virtual applications requires an instructor that is trained and an expert of the systems. For the investment in new capabilities to be relevant, constant investment will be required in education and updates in hardware, software, and infrastructure. This requires a long-term plan and commitment in the technology and in the instructors. Creating instructors

that are experts in the employment of 21st Century teaching methods and technology allow the schools to increase student to instructor ratios, because the instructor is able to monitor virtual rooms as well. This allows for more contact time per student within a designated POI and further engages a MAT population that lacks supervision and an executable plan for all schools. The instructor is the engine of this complex system and the selection of these Marines and the available time at the schoolhouse must be heavily scrutinized to be affective. The instructor must be multifaceted, understanding the material in the lesson plan, how to operate the media that will be used and be flexible with the student centric format to adjust as they see needed to maximize the learning experience. This type of agility is difficult and will require a specially trained individual to manage it. Current assignment to an instructor billet is not highly sought after and those selected represent an even spread across the MOS's talent pool. Going to an instructor billet needs to be incentivized and positioned as a place to prosper and help one's career grow.

TECOMs focus starts with LXP and bringing the student to the center of the learning experience. This concept aligns with civilian institutions that are successfully implementing this program but outlines the fact that there is currently no setup to benefit from 21st Century Learning as stated in the LXP baseball card that the USMC currently “do not maximize technological advancements to rapidly increase, maintain, and achieve collective readiness and lethality.”²⁹ The second part of this equation is technology. Technology represents challenges for a multitude of reasons. It begins with procurement to upgrade the classes with media that supports the learning objectives. For Marine Corps centric schools this can be streamlined but it becomes more challenging as the multi-service schools are considered. The one positive for the multi-service schools is that there is the potential that the other services will split the costs of incorporating media like virtual simulators with the Marine Corps. The greatest challenge,

however, is the procurement process itself and the number of schools that require upgrades. From the school's perspective training needs to be included with the installation of any new technology. Training will need to be continuous as instructors' transition in and out of the school. The argument will be that the trained instructors can just teach the new ones but as instructors transition small amounts of data begin to get lost from instructor to instructor. There must be an investment in continual education as will be discussed in recommendations. The second part of the technology solution is the infrastructure. Current Wi-Fi infrastructure is inadequate to support the multitude of specialized classrooms and hands-on workshops that provide the Marines practical application on their specific platform. The maintainer disciplines are not in traditional classrooms throughout the day as their classroom is a maintenance space. This will require examination of the classroom, but maintenance spaces and billeting as well.

Recommendations

The analysis of TECOMs programs began with manpower and a focus on the instructor. The WCLL program emphasizes the training of "highly skilled teachers, coaches, mentors, trainers, facilitators, exercise designers, curriculum developers, and small unit leaders who directly influence the learning of individual Marines."³⁰ Multiple ELT schoolhouses have shown high levels of approval on the quality of the instruction that the individual instructors are receiving, however there is currently a disconnect between the instructor and the curriculum developer. The newly trained WCLL returns to the unit prepared to "focused on adult learning theory and outcomes-based learning"³¹ and developers that do not understand the program or are resistant to change. To reside this issue, it is recommended that in conjunction with the Innovative Instructors Workshops (IIW), which create WCLL, that a proportional number of Innovative Developers Workshops (IDW) are provided to the staff of the schoolhouses.

Instructors that are prepared to infuse outcomes-based learning objectives require developers that understand the vision and provide POI that supports the end state. The development of the instructor and staff is the first step in creating a schoolhouse with the ability to creatively engage students in a MAT status.

Advancements in Technology and Doctrine

Technology is the next area of focus, through the analysis of TECOMs programs, and how the application of technology can provide to a 21st Century learning environment. Clear understanding of what technology can and cannot do needs to be developed by the staffs of the schoolhouses. It starts with an understanding that technology should be used in all classes, but primarily as a tool. Technology is not the solution to all of the Marine Corps challenges within the ELT pipeline, however, it has the ability to expand student to instructor ratios safely through self-paced classes, simulators and virtual classrooms. These focused applications of technology can have profound impacts on each of the schoolhouse's ability to relegate MAT to just another phase of the POI. There are multiple recommendations in the field of technology that can directly improve MAT across the ELT pipeline.

The development of self-paced virtual classwork that is specifically tailored to the POI and, more specifically, that the individual schoolhouse has academic influence in the curriculum and the flexibility to make changes. The POI in many schoolhouses is not flexible to innovation and changes to the POI are not timely. Within the MCTIMS tab on the second page of the TLA card it states to "standardize curriculum development."³² As the Marine Corps moves forward with technology and innovation, they need to be careful with terminology. It is exceedingly difficult to talk about standardizing a system as diverse as the MOS producing schoolhouses, and in the same breath, implement change that is centered around technology and innovative

thinking. To maximize the return on investment in the individual Marines within the pipeline and the investment in the TLA program TECOM will need to allow more freedom of navigation by the ELT schoolhouses to dictate curriculum development. This is to include the individual schoolhouses inputs in the development of self-paced virtual classrooms.

Value of Hands-on Training

Academic researchers have done extensive work in the study of how people learn and what influences the way that different people process information. There are countless articles from early education providers to universities that note that hands-on learning allows students to make mistakes and learn from them, to identify disparities in information from a lecture through the practical application. Regardless of an individual's learning style (visual, auditory, reading/writing or kinesthetic) research shows that hands on learning is a proven system to connect all students in the classroom. The challenge that comes with "hands-on" is the necessity to have large amounts of equipment available and specifically to maintainers a bolt, nut, gasket, O-ring, screw, or lever can only be moved so many times before it breaks and must be induced into maintenance. The maintenance that is required on all equipment at a FLC is conducted by the instructor cadre. This is yet another drain on finite instructor cadre, that limits their time with students. The creation of virtual simulators for these types of application would allow student to take theory that was learned in a self-paced class and apply practice. Simulators are nothing new to the Marine Corps as pilots use them heavily to maintain currency and when learning new platforms. These systems are robust and require large facilities and personnel to run them. Systems that would benefit the enlisted ranks start at the FLCs. The Army is currently fielding a bulk fuel virtual simulator that allows students to refuel aircraft, conduct maintenance to a fuel

farm system and operate a mobile facility via the M970 refueler trucks. This alleviates wear and tear on equipment and potentially lowers the amount of equipment that is needed at the FLCs.

With inputs from the schoolhouses subject matter experts (SME), virtual systems could be developed that allow instructors to stay hands-on with the student's vice spending time maintaining their table of equipment. One area that would greatly benefit from these forms of systems is the MAT population. Systems can be created to virtually teach a Marine how to conduct a specific MOS function or secondary requirement like headspace and timing on a M2 .50 caliber machine gun without the necessity of an instructor in the immediate vicinity. Core competencies can be consistently reinforced instead of allowing them to atrophy over months of awaiting class pickup. This same concept also applies to MOS specific training for the MAT Marines.

On the Job Training (OJT)

On the job training (OJT) is an area that is not uncommon to the Marine Corps, however, it is not a practice that has structure and forcing functions to implement it across the enterprise. MARDET Ft. Lee, Information Paper, *MAT population* provides insight into the timeframe that is currently seen as acceptable "Training Command's (TCOM) current guidance on "nominal" MAT in dwell time of 90 days or less we are seeing "double digits" in our MAT population at Fort Lee in excess of 245 days. "³³ In order to provide structure for the MARDETs and schoolhouses policy needs to be driven from TECOM that identifies criteria for sending a Marine and clearly defined expectation from the schoolhouse to their FMF unit. A timeline requirement is the first identifier to initiate transfer of the student to a temporary duty (TDY) status from the schoolhouse to the Marines follow-on duty station. The recommendation would be anything greater than 45 days in dwell time will be processed to conduct OJT in the FMF. The

expectation or quality of this period can be controlled through the curriculum developers at each schoolhouse and the development of measures of performance (MOP) and measures of effectiveness (MOE). The RAND Corporation states that “MOPs are used to evaluate the way in which a program is implemented and the quality of that implementation; MOEs are used to evaluate whether the program is achieving its goals and effectively producing the desired intermediate, proximal, or distal outcomes.”³⁴ The MOPs for the OJT program are implemented through mission essential tasks (MET) that form the basis of the program. A focused checklist specifically designed for each MOS would provide the Marine and the gaining unit a plan of action and milestones (POA&M) given the time period is taken into consideration. Upon return to the schoolhouse, the MAT Marine should be tested on the items that were completed on the checklist. The checklist could potentially accelerate the Marines requirements at the schoolhouse upon return or just enhance the product that is returned to the gaining unit. It benefits the gaining command to cooperate and contribute to the quality of the OJT period. The Marine needs to return one week prior to allow for in processing, testing and familiarization prior to start date. Additionally, specifically the schools that are on Joint bases requires funding for Base Operating Structure that is levied on the MARDETs to sustain Marines on non-Marine Corps installations. These costs cover the billeting, care and feeding of Marines that are sitting in a MAT status.³⁵ The execution of the OJT process would lower the costs for Base Operating Structure, as the number of MAT Marines would be minimized at the FLC.

There is inherent value in pre-exposing the MAT Marines to their follow-on units that outweighs the challenges that the Marine will have to work through. The challenges are funding, chain of command and the burden that these Marines will put on the FMF. These are all legitimate concerns and require thorough planning and oversight, but there is not one of these

issues that cannot be solved. Funding primarily focuses on the transportation of the Marine from IMOS schoolhouse to follow-on FMF unit. A meal card and houses would need to be coordinated by the receiving unit at no additional cost to the Marine Corps. Many different variables go into the actual transportation cost as several of the largest schoolhouses are in close proximity to bases and different modes of transportation can be leveraged to keep cost down. The chain of command specifically addresses the fact that the students under TECOM rules and regulations are held to additional restrictions that FMF Marines are afforded. Those regulations would require documentation and an understanding by the receiving unit and the student to minimize punishable offenses. The burdens on the receiving command are minimal as the number of MAT Marines that a unit would receive is manageable as these Marines are spread across the enterprise. The effort that FMF units put towards these students has a direct impact on the type of Marine that will return to them upon completion of IMOS training.

The advantages that are gained by having these Marine's engaged during their MAT timeframe are profound and directly get after the goals of retaining the absolute best Marines into their second enlistment. By having a definitive number of days that qualifies a Marine to participate in the OJT program the Marine Corps is ensuring a level of inclusion into the Marine Corps formation. The inclusion of being a part of a team has lasting effects on productivity and long-term employment as stated by the analytical firm Great Place to Work, "Inclusion in the workplace is one of the most important keys to retention. When employees do not feel that their ideas, presence or contributions are truly valued or taken seriously by their organization, they will eventually leave."³⁶ As the Marines return to their schoolhouse, they return with knowledge, an understanding of their job and a sense of purpose and belonging.

Talent Management

Senior leaders in the Marine Corps provided input to talent management or the determination of high-quality Marines through two lenses. The first lens is Marine Corps values (humility, smarts, respect, gratitude, integrity, work ethic, leadership). The second lens is based on MOS proficiency or how well a Marine performs their job to include qualifications, certifications, and ability to master skills outside their primary MOS. This falls in line with the current proficiency and conduct criteria for evaluating enlisted Marines and their potential for promotion. This is a very outward look that is directed solely at the individual Marine. MCO 5250.1 explains the process of talent management as it “maximizes potential, outcomes, and outputs for every individual in the system in order to produce the greatest organizational results.”³⁷ The order clearly states the importance of the individual within the system. The Marine Corps has more impact on the challenges that talent management presents and must take an inward look at those areas they control in order to provide the best opportunity to retain the most highly qualified. The Talent Management benefit is two-fold. First, the Marine Corps must maximize their return on investment within a Marine's first enlistment. Second challenge for the Marine Corps is the retainment of the absolute best Marines into consecutive enlistments.

This is an extraordinarily complex topic and could be discussed separately or as two dynamics of one larger problem. As the Marine Corps postures itself to conduct Expeditionary Advanced Basing Operations (EABO) across a distributed front they require multifaceted Marines.³⁸ USMC leadership has challenged the status quo of an entry level pipeline that rests on a Vietnam era model. The force laydown requires that Marines be cross trained in multiple MOSs to decrease the size, signature and logistical burden while maintaining lethality across vast expanses. MAT degrades the very fiber that this concept is built on. The loss of days on a

Marine's first contract means time that is wasted and extends how long it will require FMF units to prepare for this requirement. The second part of talent management is the Marines overall experience in the Marine Corps. The ELT pipeline is a Marine's first impression, and that impression has lasting impacts on their determination on continued service. A Marine that sits in MAT becomes disenfranchised with the lack of structure and compounded with an overwhelming level of restrictions imposed on them. A student is not allowed to have a vehicle, be involved in a physical relationship and the consequences of drinking underage are career ending. The Marine Corps needs to show the individual Marine that the USMC is organized, professional and respectful of that Marines time and talent. The current gaps in time gives the perception of being unorganized. As Recruit Depots and MCT mold Marines and transform them, it is imperative to maintain that momentum, and this is where the MOS producing schoolhouses struggle. The topics above will create the foundation for how MAT is an intricate piece of a Marines overall experience and has impacts on whether they are willing to discuss further service. Something like fixing MAT demonstrates that talent management transcends just M&RA and needs to incorporate other major USMC institutions to include – training, education, policy, doctrine, etc. That these concepts effect manpower (i.e., like MAT – a Training Command issue impacts retention) and occasionally needs to pick up the slack for M&RA being stubborn with their policies/procedures (like JJAS).

Conclusion

Human capital is the most precious resource that the Marine Corps has across all quantifiable spectrums as the USMC has no platform that define it like the jet to the Air Force, the tank to the Army, or a carrier to the Navy. Its use of these resources and the management of first enlistments is rightfully drawing skepticism. The Marine Corps is an effective organization

overall, however its methodology for MOS proficiency generated by the ELT is antiquated. 21st Century learning is about outcomes that ultimately come from principles that are taught at the entry level and are maintained throughout the lifecycle of the organization. The decisions that are made over the next 5-10 years will set the stage for the Marine Corps and its status as a world class organization. The critical capabilities that TECOM has produced to inject 21st Century Learning that puts the student in the center of the learning continuum is positive and moves the ELT pipeline towards solving institutional problems with lecture-based POIs.

As implementation of these programs rolls out a hard look must be taken by TECOM on the involvement and ultimately the flexibility that the schoolhouses themselves will require to maximize the power of 21st Century Learning. Areas like self-paced learning, simulators and virtual classrooms will require the schoolhouses inputs and potentially move them away from one standardized POI as 21st Century Learning is outcomes-based vice memorization based. Deep investments must be made as equal priorities to instructors and technology. This investment must be seen as a continuous fiscal year requirement to ensure instructors and technology are always being updated. These areas of influence will provide the schoolhouses the ability to increase student to instructor ratios, which in turn will provide an outlet for MAT issues across the ELT pipeline. With the addition of OJT, the Marine Corps can reduce the amount of wasted time Marines currently face at formal learning centers.

TECOM has provided a plan and taken strides to modernize our aging education system. This focus cannot be a five-year plan. It requires that MOPs and MOEs be established and 21st Century learning be an unwavering goal that focuses on manpower, technology, doctrine, and funding as a collective group. One without the other degrades the performance of the entire

system. If human capital is the most valuable component in the Marine Corps then the management of its talent must be its highest priority.

Endnotes:

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¹⁶ Headquarters Marine Corps, Training and Education Command, Learner-Centric Experiences (LXP), Baseball Card.

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¹⁹ Headquarters Marine Corps, Training and Education Command, World Class Learning Leaders (WCLL), Baseball Card.

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²¹ MCDP-7

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²⁷ Headquarters Marine Corps, Training and Education Command, Rigorous Assessments and Evaluations (RAE), Baseball Card.

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- ²⁹ Headquarters Marine Corps, Training and Education Command, Learner-Centric Experiences (LXP), Baseball Card
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