PRACTICE WHAT YOU PREACH: AN EVALUATION OF U.S. COAST GUARD'S USE OF HUMAN PERFORMANCE TECHNOLOGY TO FOSTER A LEARNING ORGANIZATION.

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Andrew Richard Campbell

PRACTICE WHAT YOU PREACH: AN EVALUATION OF U.S. COAST GUARD'S USE OF HUMAN PERFORMANCE TECHNOLOGY TO FOSTER A LEARNING ORGANIZATION.

The purpose of this study was to conduct an evaluation of the U.S. Coast Guard's Force Readiness Command (FORCECOM), whose predominate workforce consists of military and civilian personnel assigned to use Human Performance Technology practices to support the greater organization, are adopting its own principles to foster a Learning Organization. The intent of evaluating the target population of 240 members was to empirically understand, using quantitative methods to deduce what level of learning was occurring within Kaufman's (2014) organizational hierarchy, what level of the organization concerns arise, and to identify specific factors that suggest improvement within Senge's (1990) five disciplines. The data was collected with the implementation of a modified survey instrument derived from research contributions by Bui and Baruch (2012), designed to capture perspectives of 92 factors and their relationship within the learning organization framework of systems thinking, personal mastery, mental models, shared vision, and team learning and their antecedents. Findings utilizing inferential analysis from a 28% response rate, identified five factors in areas of professional development and communication that suggested a statistically significant difference of perspectives between the different levels of the FORCECOM organizational hierarchy. With the use of descriptive analysis, findings identified 51 factors in all disciplines and their antecedents had 25% of the participants or greater who had disagreeing perspectives from their counterparts when the data was combined as a single FORCECOM entity. Although the findings of this research identified numerous factors highlighting concerns, it established a baseline standard for future research to

trend in the upward direction to ensure the U.S. Coast Guard's Force Readiness Command fosters a Learning Organization.

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Chapter One: Introduction

Force Readiness Command (FORCECOM) is a U.S. Coast Guard (USCG) component whose primary function is to provide Human Performance Technology (HPT)-based consultations to improve USCG's overall workforce training programs. HPT is "a professional field of study and application…That allow people and organizations to perform in ways that they and all stakeholders value" (Pershing, 2006, p. xiii). Over the last two decades, upon the establishment of FORCECOM, leadership has made efforts to grow every aspect of its resources, elevate the competence of its workforce, and cultivate an organization-wide learning culture that embraces HPT. As a military branch and part of the U.S. Federal Government, FORCECOM is continually faced with fluctuating leadership representation as duty assignments end, as well as structural and budgetary changes based on the current geopolitical climate. These impediments ultimately hinder FORCECOM's operational ability to prioritize and allocate its workload and resources and improve its internal procedures.

USCG has invested tremendous amounts of time, money, and other resources into and out of FORCECOM in order to guarantee the overall service can improve its workforce's performance and that of the organization as a whole. These resources ultimately establish a precedence for FORCECOM's efforts; support of the greater organization becomes taxing of its own internal development. Examples of FORCECOM efforts and initiatives that would require increased resources include regular updates of governing documentation; continual development of its practitioners' skills and knowledge; decreased turnaround times for analyses; development of standardized performance support; and systematic evaluation of the workforce's performance. As an organization whose guiding principle is HPT, FORCECOM should be able transfer

learned knowledge and streamline its own processes regardless of the variables introduced into the system.

USCG has a desire to continuously improve its organizational performance and become a more efficient agency to meet its everchanging missions. Admiral Karl L. Schultz, USCG Commandant from 2018 to 2022, established a strategic plan shortly after assuming command. The plan reemphasized USCG's interest in maturing organizational processes, updating policies and doctrine, modernizing assets, and sharpening the workforce's skills to maximize readiness (U.S. Coast Guard, 2018). These points directly correlate with Cyert and March's 1963 theory of organizational learning which suggest "The firm adapts to its environment; the view that the 'firm learns from its experience" (Cyert & March, 1963; Easterby-Smith & Lyles, 2011, p. 11). Admiral Schultz also stated in the strategic plan that the organization must avoid "the temptation to build and perfect the Coast Guard of the past, [and that] we must be bold, think anew" (U.S. Coast Guard, 2018, p. 8). The Commandant's strategy for evolving the organization would be a challenge to accomplish without understanding its past and how it evolved over time.

History of FORCECOM

Eleven days after the September 11, 2001, terrorist attacks, Pennsylvania Governor Tom Ridge was appointed as the first Director of the Office of Homeland Security in the White House (Bush, 2002). The USCG would later become one of 22 different federal organizations that unified to form the Department of Homeland Security from its former residence (U.S. Department of Homeland Security, 2015). This restructuring, along with subsequent geopolitical events, not only added operational missions but altered USCG's priorities. As of 2022, USCG operates over 2,000 assets and over 80,000 personnel to execute the 11 missions codified in the Homeland Security Act of 2002 (U.S. Coast Guard, n.d.).

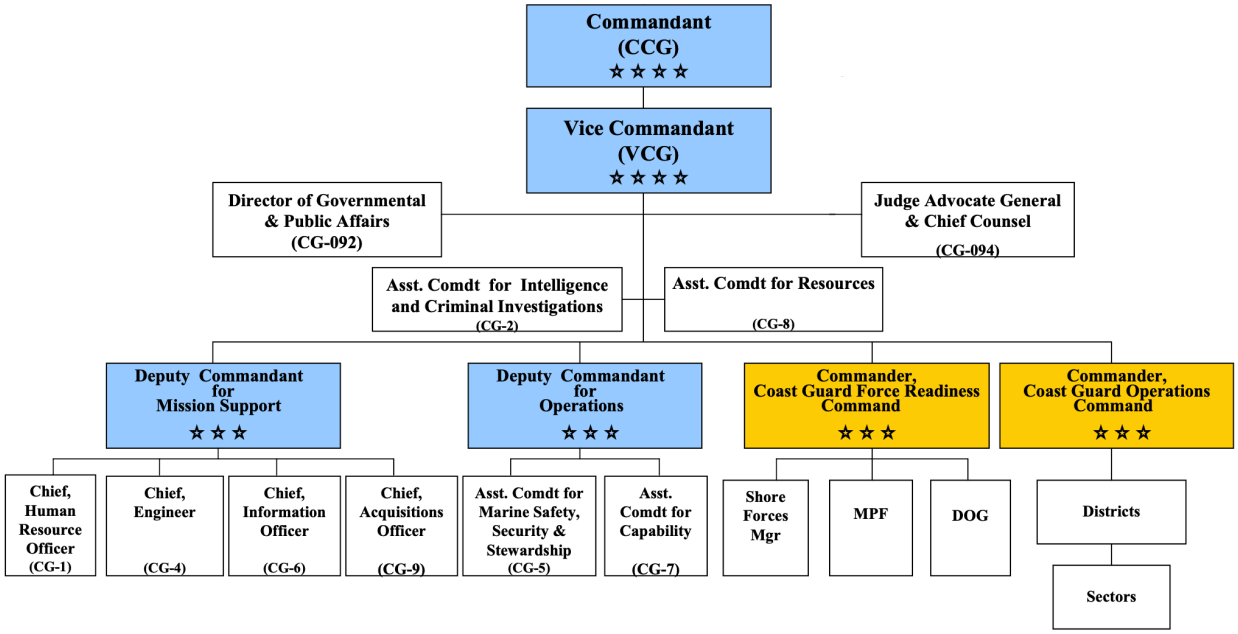
In 2006, under the leadership of Commandant Admiral Thad W. Allen, USCG initiated what it called *Modernization*. This initiative re-aligned the entire agency based on the "need [for an] operational structure that is more agile, flexible, and responsive" (Breckenridge, n.d.). USCG incorporated the Baldridge Excellence Framework for organizational improvement to establish 10 Commandant Intent Action Orders (CIAOs) that would be implemented within Admiral Allen's four-year tenure. (U.S. Department of Commerce, 2016; Breckenridge, n.d.).

Nine CIAOs consolidated the headquarters construct, transitioning nine major program offices into two divisions—Deputy Commandant for Operations (DCO) and the Deputy Commandant for Mission Support (DCMS)—based on area of respective jurisdictions (Breckenridge, n.d.). The "Assessment of Coast Guard Command and Control Organization" CIAO dissolved, redistributed, and rebranded the Pacific Area and Atlantic Area operational commands as USCG Force Readiness Command (FORCECOM) and Coast Guard Operations Command (OPCOM) (Breckenridge, n.d.)

Four major cornerstones established clear organizational roles and responsibilities that would improve business processes. Policy focused on USCG missions would reside within DCO's realm, whereas policy regarding the acquisition and life-cycle management of supporting assets would reside within DCMS's scope. OPCOM (legacy Atlantic Area) would be charged with centralizing the command and control of all operational assets under a single entity. FORCECOM would be focused on workforce performance and be comprised of the HPT workforce from USCG headquarters and legacy Pacific Area staff, and other funded program entities to achieve this reorganization. Figure 1 depicts the envisioned organizational construct after Modernization (Breckenridge, n.d., p. 7).

Figure 1

Envisioned U.S. Coast Guard Organization After Modernization



Note. Adapted from "Coast Guard Innovation Expo - Modernization Panel," by U.S. Coast Guard, n.d., p. 11 (https://ndiastorage.blob.core.usgovcloudapi.net/ndia/2008/USCG/Tuesday/CGModernizationInnovationExpoPanelBrief.pdf). In the public domain.

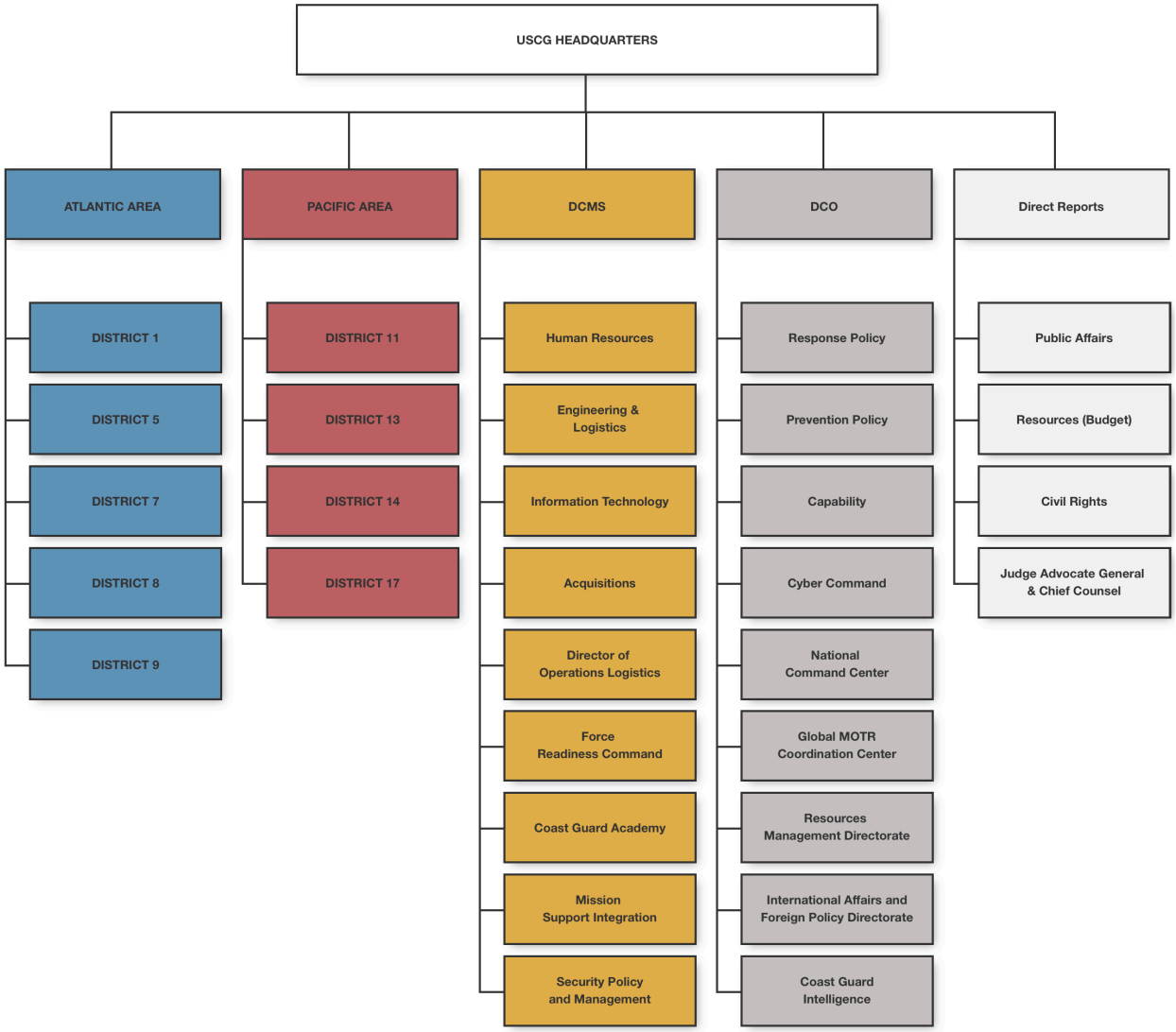
USCG fully established DCO and DCMS from Headquarters entities during the four-year span. FORCECOM was partially created from existing Headquarters entities during the same period. The request to merge Pacific Area entities as well as the transition of Atlantic Area into OPCOM was overturned due to lack of congressional support. Admiral Robert J. Papp—Admiral Allen's successor—withdrew the congressional request for a three-star admiral to oversee FORCECOM; a partial devolution of Modernization occurred thereafter.

Today, DCO and DCMS continue to focus efforts on guiding policies and life-cycle maintenance of sustaining assets. The original concept of OPCOM under Modernization was completely abolished, and Pacific Area and Atlantic Area remain intact as they did prior to the Modernization restructure.

The devolution drove FORCECOM to retain the inherited duties during the transformation but without the anticipated additional personnel support. FORCECOM still exists, but never obtained the status of a three-star command. Command leadership changes every two years, and it retains its headquarters branch-level position under the DCMS organization. These political and organizational barriers kept FORCECOM from evolving into an organization fully capable of reaching its HPT potential and effectively impacting USCG-workforce performance. Figure 2 depicts the current organizational construct of USCG (U.S. Coast Guard, n.d.).

Figure 2

Current U.S. Coast Guard Organization



Note. Adapted from "United States Coast Guard Organization Chart", by U.S. Coast Guard, n.d., (https://www.uscg.mil/Units/Organization/). In the public domain.

Problem Statement

USCG needs to evaluate the success of its strategy to continually transform itself to be more competent and in time with the world it is commissioned to support. Every two to four years, divisions and program offices experience the appointment of new senior leadership, who guide the organization based on the merits of their careers. During the relatively short time new leadership is in place, the leaders promote to the next level of rank and transition into other areas of USCG. Meanwhile, teams of supporting staff diligently create new, complex strategies or update policies/procedures to ensure that operations align to meet the new leadership's vision. This consequently creates a need to train and learn new tactics to ensure mission execution. In some cases, teams sit idle waiting the transition of the next admiral to be appointed so they can start the process a new.

Civilian employees are hired into positions for the purpose of continuity, while military members are assigned to leadership positions to bring operational perspective—and the opportunity to lead for career-progression purposes. In many cases, civilian hires tend to be USCG retirees who exceed the sought-after qualifications due to their extensive service record. Contracted support bolsters the workforce when there is an influx of mission-support needs. Contracted individuals are usually transitioning military members; they provide inside knowledge of the organization they are hired to support. Because of the constant turnover, the ways that leadership and management are executed tend to directly correlate with operating from *organizational knowledge*, which is "trying to understand and conceptualize the nature of knowledge that is contained within organizations" rather than following existing policies (Easterby-Smith & Lyles, 2011, p. 3)

Admiral Allen's strategic plan for Modernization was one of the largest changes to the modern USCG organization, and its ultimate goal was to establish organizational learning. The goal of creating FORCECOM, one of the bodies formed to launch this change, was to empower a single entity at the highest level of the organization to leverage HPT competency for performance improvement. Under Modernization, "FORCECOM [would provide] ready forces to meet the supported commander's current and future operational requirements" (Breckenridge, n.d., p. 23).

Prior to Modernization, FORCECOM was a relatively small division under the Human Resources headquarters program office, with other components present throughout the organization. It managed seven training centers throughout the country, and oversaw approximately 3,000 personnel responsible for the analysis, design, development, implementation, and evaluation of over 800 courses. In addition, FORCECOM managed and executed USCG's voluntary and advanced education program, which issued tuition assistance to obtain academic degrees for the betterment of the organization.

Training leadership pioneered the cultural shift from decades-old instruction design practices to HPT. During Modernization, FORCECOM incorporated six additional training centers to the existing seven to achieve a common course-execution standard. Other existing entities, such as exercise support, traveling assessment teams, and weapons armories were also added to support the human performance evaluation. In addition, a new division charged with the development of tactics, techniques, and procedures (TTP), an unfamiliar product derived from its Department of Defense counterparts, was created. The TTP Division extracted performance-level publications from higher-level policy and republished it into a format similar to a job aid. This process allowed for faster updates based on operation-level lessons learned.

The goal was to improve the time-consuming and inflexible concurrent-clearance process for publishing policy, which was an issue for operational instances of high risk.

Figure 3 depicts the human performance cycle (HPC) mental model used by FORCECOM to illustrate how the various services HPC would provide USCG. The HPC mainly emphasized FORCECOM's efforts to align TTP, training, and assessments into a systematic, inter-influential process, with lessons learned from exercise support aiding both the training and assessment components. FORCECOM indicated the HPT focus by wrapping services around the operational nucleus where performance occurs. The outer circumference of the cycle illustrates how the policy and doctrine efforts of DCO and DCMS would influence the HPC, ensuring continuous improvement of its product development, aided in the performance executed by operations.

Figure 3

Human Performance Cycle

Note. Adapted from an obsolete U.S. Coast Guard presentation. In the public domain.

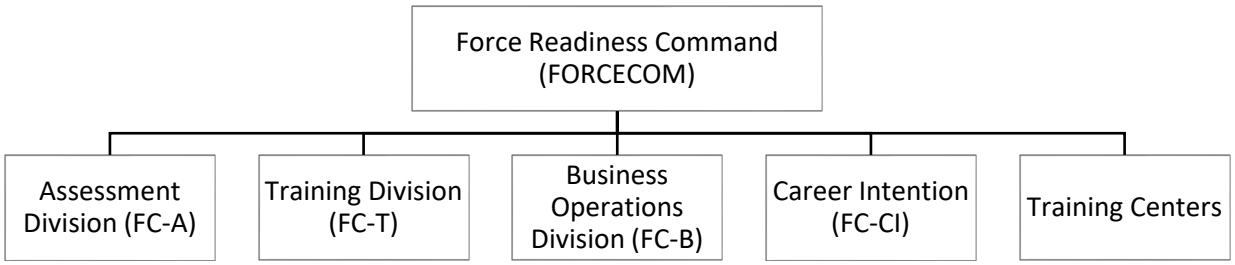
Mid-way through the tenure Admiral Paul F. Zukunft—Admiral Papp's successor—signed USCG's *Human Capital Strategy* into action. Admiral Zukunft reiterated Admiral Allen's model of an agile human capital system that could meet mission execution, stating, "as part of continual organizational development, we will examine ways to refine the relationship and alignment between CG-1 and FORCECOM, with the goal of delivering mission-ready personnel" (Zukunft, 2016, p. 21). The *Human Capital Strategy* document highlighted FORCECOM's reputation as HPT experts, but several objectives only hinted at training delivery in collaboration with the Human Resources program office. In addition, Admiral Zukunft introduced a mental model that solidified FORCECOM's existence as a subordinate entity within USCG as it was previous to Modernization (Zukunft, 2016).

Two years after publishing *Human Capital Strategy*, Admiral Zukunft's tenure concluded. As of the writing of this document, FORCECOM leadership has submitted over a dozen organization modification requests to senior USCG leadership to enact organizational restructuring. The major modifications that have occurred since the FORCECOM's inception have significantly altered FORCECOM's organizational construct and has completely dissolved the HPC. FORCECOM has relinquished the majority of the assessment teams back to their original program offices, removed exercise support, relocated the staff management to another USCG organization, delegated TTP development to the program offices responsible for writing guiding policies, and converted the TTP division into a business operations support entity. Of the changes enacted during Modernization and the following years, FORCECOM retains the weapons armories. In addition to the internal restructuring, FORCECOM addressed an internal initiative to add a division known as Career Investments (FC-CI). This division is solely

responsible for aligning USCG training programs to ensure military members are eligible to receive college credits and/or certification, credentials, and licensure.

Figure 4

Current FORCECOM Organizational Construct



Note. Created from "Force Readiness Command Division" website and personal working knowledge, by U.S. Coast Guard Force Readiness Command, n.d., (https://www.forcecom.uscg.mil/Our-Organization/FORCECOM-DIVISIONS/). In the public domain.

As Admiral Schultz's time as Commandant ended, USCG enacted various staff efforts in anticipation of its new leader, Admiral Linda Fagan. Admiral Fagan will establish her strategic vision for the future, which, along with the continual transfer of mid- and senior-level military officers, could spawn a large-scale organizational upheaval of staff efforts, resulting in stages of group development known as forming, storming, norming, and performing (Tuckman, 1965). As the new senior leaders' directions are given, USCG will continue to ensure mission execution, but it is unclear whether the organization will evolve to its fullest potential.

Purpose of Study

The purpose of this study is to conduct an evaluation of FORCECOM to verify whether it is fostering a learning organization. FORCECOM's workforce primarily consists of military and civilian members who utilize HPT practices to provide the USCG with performance consulting services in order to address workforce and organizational issues.

Early on, the Training Division recognized the benefits of adopting HPT practices and proactively incorporated them, which made USCG a leader within the HPT community. As the organization expanded its support services, it held annual HPT workshops, and financially and logistically supported HPT-focused advanced degrees of 194 service members. FORCECOM is now a prominent partner with the International Society for Performance Improvement (ISPI). FORCECOM revisited training specific competencies to align with ISPI standards to ensure affiliate with commercial standards and for the purposes of its members to obtain their certification as Certified Performance Technologists (International Society for Performance Improvement, n.d.). ISPI and its sister organization, Association for Talent Development (ATD), have recognized various FORCECOM components for their outstanding achievement in the community of practice (International Society for Performance Improvement, n.d.). An assumption can be made that adaption of FORCECOM's own principles are implemented for the betterment of itself.

During my 20-year career as a commissioned officer, I have served in various positions in what is now FORCECOM. Beginning my career with FORCECOM instilled in me the knowledge of the command's guiding policies and adapted HPT theories. My promotions within USCG allowed me to transfer within FORCECOM, from training centers into roles of greater responsibility. As my USCG career concluded, my final assignment was at the highest level of

the organization. I worked directly for FORCECOM's Chief Learning Officer, leveraging my HPT competence to advise senior leadership as they developed strategy-level plans that directly affected tactical efforts.

Following Modernization, USCG leadership has continually altered its strategic plans for FORCECOM. This variable approach affects FORCECOM's ability to perform its functions. In many cases, it appears that evolution is supported, the state of FORCECOM suggests otherwise and is much the same as it was before Modernization.

The constant rotation of senior leadership—whose administration only lasts for two to four years—provides fresh perspectives for organization improvement. The continual change in senior leadership, however, also often establishes competing priorities, affects strategic longevity, and reduces returns on investment. The rotating nature of the position also results in a tremendous effort to establish, disseminate, interpret, and execute the Commander's Intent to ensure a shared vision across the complex organization.

Research Questions

RQ1: Is there a difference in the perceptions of systems thinking between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ2: Is there a difference in the perceptions of personal mastery between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ3: Is there a difference in the perceptions of mental models between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ4: Is there a difference in the perceptions of shared vision between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ5: Is there a difference in the perceptions of team learning between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

Strategic Level

When Admiral Allen implemented Modernization, FORCECOM was commanded by Rear Admiral Timothy Sullivan. Rear Admiral Sullivan was charged to lead a much larger organization that included aspects of talent management. Since then, five other admirals have been appointed to lead the organization, none of whom are prior HPT practitioners. Of these leaders, none held the position for longer than a two-year term, and one presided in the position for only one year. All have generally assumed the position with organizational knowledge gained from their respective three decades of USCG experience. Each admiral spent approximately six months to learn the FORCECOM construct and establish their Commander's Intent, with the remaining months spent preparing to transition to their next assignment.

USCG's talent management system is designed to benefit senior leadership's ability to command various major components of the organization and to fully understand the political intricacies in a timeframe that supports the constricted learning path as an admiral. The rapid tenure as a one-star admiral consequently affects staff work at the top of the organizational pyramid which consequently migrates its way down the chain of command.

Admiral Brian Penoyer's *Modernized Ready Learning* document is the most current strategy and focuses on establishing a blended learning environment and transforming training

center into readiness centers. The current FORCECOM Commander, Rear Admiral Michael "Joe" W. Raymond, is in his initial phase of understanding FORCECOM in order to aide in the development of his Commander's Intent. His appointment follows a one-year gap since Rear Admiral Penoyer's departure, during which FORCECOM was led by its civilian Deputy Commander, Dr. Gladys Brignoni.

Revisions of the *Performance, Training and Education Manual*, which was initially developed by the original Training Division and is still enforced by the FORCECOM's current Training Division (FC-T), suggest that enforced FORCECOM governing variables have not evolved with the change in strategies (U.S. Coast Guard Force Readiness Command, 2017). This manual, last revised in 2017, was the original policy established to govern the performance consultation roles that FORCECOM enforces to its USCG program clientele. Although it has been updated during the tenures of two of the six FORCECOM admirals, it makes no mention of any FORCECOM efforts outside of the FC-T.

The Management of the Training System policy had not been updated nor cancelled since August 1991 (U.S. Coast Guard, 1991). The release of the Coast Guard Assessment, Inspection, and Audit Governance (2018) policy was the first policy published by the Assessment Division (FC-A); it does not, however, align nor cancel the Training Evaluation Policy (1998), which was last revised in July 1998 and mandates the use of Kirkpatrick's Levels of Evaluation (U.S. Coast Guard Force Readiness Command, 2018; U.S. Coast Guard G-WTT, 1998). These are just a few examples that suggest the lack of systems thinking as it pertains to knowledge management, as well as the lack of the shared vision the HPC was designed to achieve at the strategic levels within the FORCECOM organization.

Operational Level

Not only is FORCECOM responsible for providing governance to its USCG customers, but it must also oversee governing variables provided to those performing duties within FORCECOM itself. The original Training Division program office maintained several standard operating procedures (SOPs) that provided the correct methods for Instructional Systems Design (ISD) and HPT practitioners to execute their duties. In October 2009, Rear Admiral Sullivan signed a Letter of Promulgation mandating the continued use of the existing 13 SOPs (Sullivan, 2009).

The original 2,487-page catalog was developed for HPT and ISD practitioners' use while developing individual interventions such as resident training, job aids, curriculum outlines, Advanced Distributed Learning, non-instructional interventions, and on-the-job training. The catalog, though, was not designed as an integrated method of learning development (U.S. Coast Guard Force Readiness Command, n.d.).

With the demise of the annual HPT Workshop in 2012, senior HPT members are no longer collaborating on a regular basis to review SOPs. A few of the SOPs received small updates throughout the years, but none have been updated since 2018. This is just one variable that could potentially contribute to a lack of team learning at an organizational scale. Another variable could be the lack of a mental model that addresses how the organization could achieve Modernized Ready Learning since the HPC was abandoned and each division now pursues competing efforts.

Tactical Level

The Performance Systems Branches located within the eight major training centers largely execute the HPT work; the exception is management agency-encompassing projects

executed at the FORCECOM level by FC-T's Performance Technology Center (PTC) or are contracted out. Practitioner staff sizes range from 3 to 12 depending on the size of the division or branch. Staff hold different levels of subject-matter competence, which is usually determined by their learning path (to include military, civilian and/or contractors). The strategic policy and/or operational SOP determines the complex steps HPT practitioners must complete to develop performance improvement.

Analysis. Review of the Performance, Training, and Evaluation Manual shows that the only specificity related to conducting analysis is an occupational analysis; these are conducted to identify performance gaps within the targeted enlisted. No requirements, aside from conducting an analysis for mandated training, enforces the governance of HPT practices (U.S. Coast Guard Force Readiness Command, 2017). The prescriptive Analysis SOP (Volume 2) provides methods for completing seven different forms of analysis, but HPT practitioners would also have to be familiar with portions of the other SOPs that also contain methods of analysis to be successful practitioners (U.S. Coast Guard Force Readiness Command, 2018). The concern from program clientele is that the analysis process takes too long to complete and is usually only executed when seeking FORCECOM support to address the cultural aspect for acquiring residential training. Some efforts have been initiated within FORCECOM to address this concern by creating a more agile and rapid analysis process but are not currently dictated within FORCECOM's governing documents.

Design. An HPT/ISD practitioner building a blended-learning course in an attempt to align with Modernize Ready Learning would have to be familiar with several SOPs that have potentially competing requirements. This lack of cohesion is a result of them being written as individual processes.

For example, the Resident Instruction SOP (Volume 5) would require understanding 646-pages of procedures. If the course of instruction were to contain aspects of extreme safety concerns—such as underwater egress—a grasp of additional criterion within the High-Risk Training SOP (Volume 14) would be necessary. Likewise, procedures outlined in the 273-page Advanced Distributed Learning SOP (Volume 7) only address certain forms of asynchronous e-learning; FORCECOM has not updated them to address emerging synchronous capabilities. A fully designed course would be consolidated into a single document guided by the 169-page Curriculum Outline SOP (Volume 6). The curriculum-outline process alone could be perceived as complicated, confusing, and too prescriptive for practitioners who possess a wide breadth of HPT/ISD knowledge acquired outside the SOP library. This entire process could result in additional delays in FORCECOM delivering performance improvement customers (U.S. Coast Guard Force Readiness Command, n.d.).

Development and Implementation. The following example illustrates the complexities governing portions of FORCECOM; similar complexities exist when seeking Business Operations (FC-B) division-managed resources.

The Curriculum Outline SOP (Volume 6) requires the requestor to complete a *Funding Computation Sheet* (Enclosure 7), which is specific to resident training and is different than the common forms (Appendix C) in the Advanced Distributed Learning SOP (Volume 7). In actual practice, FC-B uses neither the Funding Computation Sheet nor the common forms to provide funding to begin course development (U.S. Coast Guard Force Readiness Command, n.d.). Additional obstacles to understanding the tools used to develop training surface once resources are provided and training development begins. USCG operates within the Department of Defense technology domain for security reasons. These parameters change daily for various reasons, from

reduction of security risks to the acquisition process requiring that software be phased out. These variable reasons should be considered by leadership because an assumption can be made that practitioners are skilled with online-module development regardless of software application, the implementation of content into different USCG learning management systems or continuously upgraded evaluation tools, and that they have a working knowledge of the financial systems necessary to acquire training aids. These assumptions are generally false, and delay support to and from FORCECOM staff.

Evaluation. The blended-learning example does consider the need to understand the 244-page Testing (Volume 10) and/or the 72-page Evaluation (Volume 3) SOPs enforced by the Training Evaluation Policy (1998). The Evaluation SOP was last revised in 2015, which reaffirms FC-A's concerns presented in the Coast Guard Assessment, Inspection, and Audit Governance (2018) policy. If instruction requires unit-specific observation after the training is completed, the HPT/ISD practitioner would then need to address the additional library of FC-A policies (U.S. Coast Guard Force Readiness Command, 2018; U.S. Coast Guard Force Readiness Command, n.d.).

Between unclear strategies, conflicting and outdated policies, lack of integrated SOPs, and system complexities, practitioners struggle to achieve a level of personal mastery necessary to successfully accomplish FORCECOM's mission. Evaluating FORCECOM HPT practitioners' and the supporting workforce's perspectives provides a more tangible insight into whether or not FORCECOM fosters a learning organization culture. This study seeks to obtain a representative perspective on FORCECOM's use of internal competence to foster a learning organization. Surveying the workforce at various organizational levels provides FORCECOM leadership with insights into the specific factors that could be improved to ensure organizational success.

Chapter Two: Literature Review

The following chronological review of foundational literature related to organizational learning presents various contributions that have shaped the profession; clarifies delineations between competing terminologies; and compares general concepts designed to support the concept of the learning organization. The review also describes specific methods that influence human performance, as well as various tools for evaluating organizations to support the theories that constitute organizational learning and concepts for promoting a learning organization.

Organizational Learning

Organizational learning can be traced to early contributions from the American philosopher, John Dewey, whose professional focus was egalitarianism and education (Easterby-Smith & Lyles, 2011; Gouinlock, 1998). Although he did not directly coin the term *organizational learning*, the theory behind individual performance and its effect on a collective group of people was prominent in his work. In *Experience and Education*, Dewey (1938) stated, "Control of individual actions is effected by the whole situation in which individuals are involved, in which they share and of which they are co-operative or interacting parts" (Dewey, 1938, p. 88).

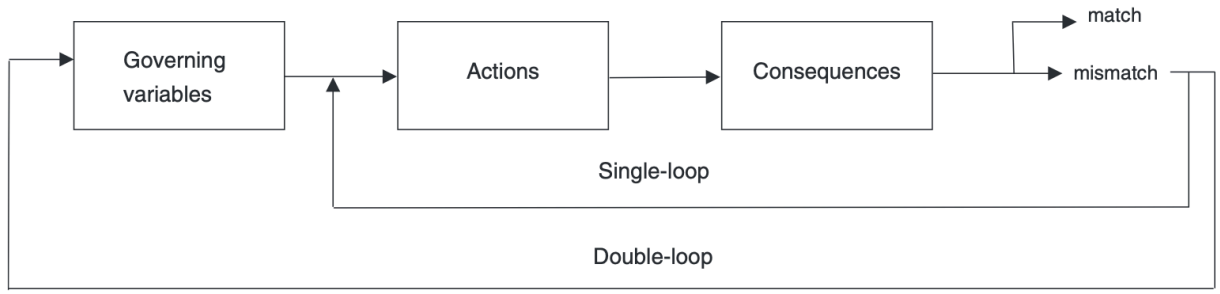
This theory—that organizational-process improvement results from the evaluation of internal procedures performed by the organization's employees—reemerged 25 years later alongside the introduction of phrase *organizational learning*. In 1963, Cyert and March (1963) published, *A Behavioral Theory of the Firm*, which explained the decision-making responses necessary for business firms to evolve based on variables that influence economic decision-making (Cyert & March, A behavioral theory of the firm, 1963; Easterby-Smith & Lyles, 2011). Cyert and March (1963) noted, "These rules, in turn, reflect organizational learning processes by

which the firm adapts to its environment" (Cyert & March, 1963, p. 223). The idea of behavioral theory and its correlation with organizational performance directly encouraged future subject matter exploration.

Argyris and Schön (1978) founded the single- and double-loop learning model (Figure 5). Their model maps a human-performance behavioral process and its impact on the greater organization (Phillips, 2014). The model shows the impacts of attempts to correct performance problems after errors are recognized. The single-loop process resolves the performance problem during the event, whereas the double-loop process prevents the performance problem from reoccurring (Phillips, 2014, p. 755). Ultimately, Argyris and Schön's (1978) theories established organizational learning as a field of study, by exclusively considering the effect of human behavior on group dynamics (Easterby-Smith & Lyles, 2011, p. 11)

Figure 5

Single- and Double-Loop Learning Model



Note. From "Encyclopedia of Theory and Philosophy" by D.C. Phillips, p. 755. Copyright 2014 by Sage Publications, Inc.

Following Argyris and Schön's work (1978), the organizational learning field quickly expanded; Hedberg (1981), March (1981), Shrivastava (1983), Fiol and Lyles (1985) (Levitt &

March, 1988; Easterby-Smith & Lyles, 2011) released seminal texts. These contributions identified many factors that now constitute the field of organizational learning and helped the field of study to evolve. Fiol and Lyles (1985) parsed the differences between learning and adaptation to elucidate the many contributions to the expanding scholarly field. The single- and double-loop learning model influenced Fiol and Lyles and was the basis for their consideration of the cultural, strategic, and environmental factors through, and structural levels at which, learning occurs (Fiol & Lyles, 1985).

Fiol and Lyles' (1985) conclusions explain contributing factors to and attributes of organizational learning, but they neglected to clearly define the term. Organizational learning continues to flourish, with March (1991), Marsick and Watkins (2003), and Argote (2011) proposing novel theories and models. Watkins and Kim (2017) stated that even though research on organizational learning is, "fraught with conceptual and definitional confusion, it has nevertheless become a core construct in organizational theory" (Watkins & Kim, 2017, p. 2).

Despite differing theories and behavioral models, organizational learning can be broadly defined as the theory of continuous performance improvement of organizations through constant evaluation and storage of obtained knowledge acquired by learned experiences (Argote, 2011; Easterby-Smith & Lyles, 2011).

Learning Organization

By the late 1980's, the concept of the learning organization had begun to influence Garratt (1987), de Geus (1988), and Pedler, Boydell and Burgoyne (1989) (Easterby-Smith & Lyles, 2011, p. 12). Senge's (1990) *The Fifth Discipline: The Art and Practice of the Learning Organization* escalated the concept's popularity. Senge defines a learning organization as, "an organization that is continually expanding its capacity to create its future" (p. 14).

Senge (1990) created the organizational learning framework, a guide for practitioners to lead such expansions (Senge, 1990, p. 14). Senge's five disciplines, established as categories of focus rather than law, are: systems thinking, personal mastery, mental model, shared vision, and team learning (Senge, 1990). The structuring of the five disciplines suggests that they must be considered in whole to achieve success in becoming a Learning Organization.

Researchers such as Calhoun, Starbuck, and Abrahamson (2011) attempted to disprove the validity of Senge's (1990) concepts. Calhoun et al. argued that though Senge's ideas were too generalized and ideological, and did not reflect reality (Calhoun et al., 2011). They claimed Senge heavily relied upon Revan's (1982) article, "The Enterprise as a Learning System," which concerned action learning. Calhoun et al. continually disputed the merit of Senge's contributions, stating that his scholarship "is bizarrely abstract, nearly impossible to decipher, and impossible to translate into practical actions" (Calhoun et al., 2011, p. 232). Although Calhoun et al. (2011) opposed Senge's perspective, the group's work does not disprove that Senge (1990) and others established the foundations of the learning organization model.

Three years after Senge (1990) published *The Fifth Discipline*, Gavin (1993) published the article "Building a Learning Organization." Gavin also asserted that Senge's efforts were "far too abstract, and too many questions remained unanswered" (Gavin, 1993, p. 79). Gavin (1993) introduced his own framework, stating a learning organization is achieved through five building blocks of activities consisting of "Systematic problem solving, Experimentation, Learning from past experiences, Learning from others, and Transferring knowledge" (Gavin, 1993). Distinct similarities between Gavin (1993) and Senge (1990) exist; compare Senge's systems thinking with Gavin's systematic problem solving; Senge's personal mastery with Gavin's learning from past experiences; and Senge's learning from others with Gavin's team learning. Gavin's (1993)

theories differed from Senge's, though, by stating that management levels must determine "meaning, management and measurement of learning" to achieve a learning organization. Without an understanding of the firm's goal (i.e., shared vision and mental model), the learning aspects in the building blocks would be nearly impossible to attain (Gavin, 1993, p. 79).

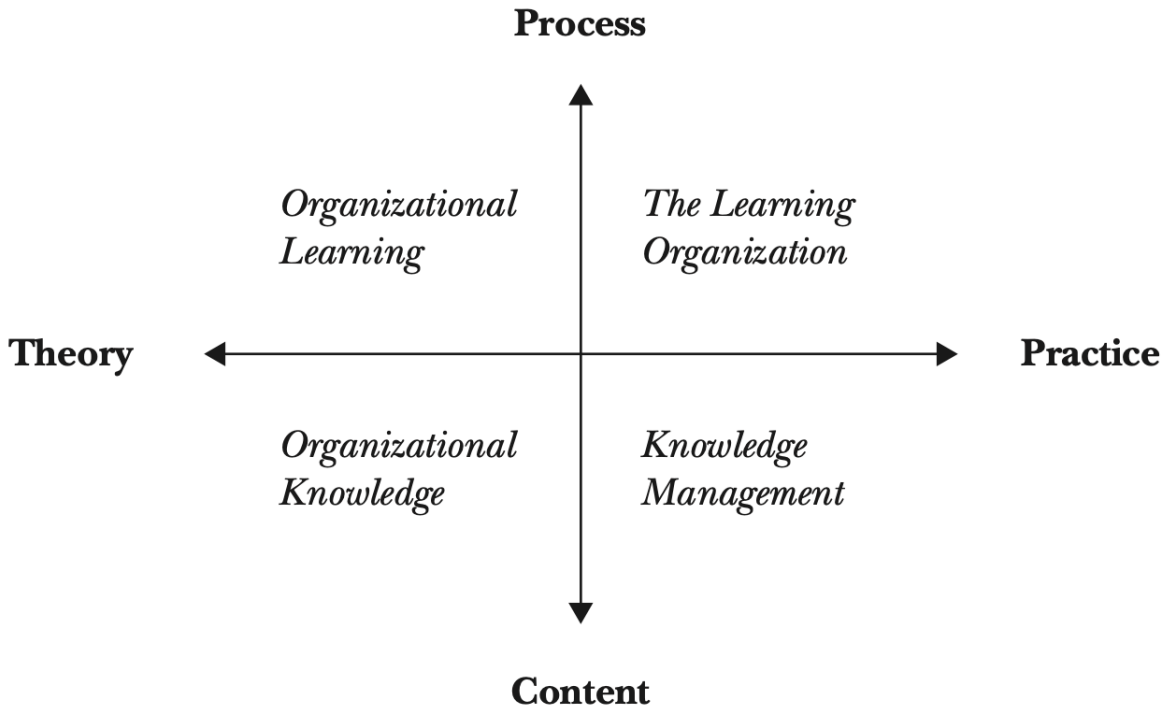
The legitimacy of the learning organization concept was questioned for decades following the term's introduction. Calhoun et al. (2011) compared the citations of the learning organization with that of *The Fifth Discipline* against other popular management ideas. Results indicated the learning organization concept significantly rose in popularity alongside concepts like *Six Sigma* and *Balanced Scorecards*, but that use of the alternative term *knowledge management* drew attention away from the idea of the learning organization. Additionally, *The Fifth Discipline* never received the same name recognition as these management systems (Calhoun et al., 2011, p. 237). Pedler and Burgoyne (2017) proved through a small-scale evaluation of practitioners within the United Kingdom and the United States that the practice of the learning organization was still thriving despite the relative lack of name recognition and the confusion of terms (Pedler & Burgoyne, 2017).

Barriers and Facilitators

The compiling and interpretation of major published sources regarding organizational learning and the learning organization, can be better classified by Easterby-Smith and Lyles (2011). Figure 6 illustrates the difference between organizational learning and a learning organization, separating the dichotomy with theory and practice. Inclusion of the terms *organizational knowledge* and *knowledge management* provide a more concentrated focus of various topics as it relates between processes and actual content resided within organizations (Easterby-Smith & Lyles, 2011, p. 4).

Figure 6

Mapping of Key Topics



Note. From "Handbook of Organizational Learning & Knowledge Management," by M. Easterby-Smith & M. A. Lyles, 2011, p. 4. Copyright 2011 by John Wiley & Sons.

The practice of capturing knowledge (i.e., knowledge management) for the betterment of changing processes (i.e., learning organization) aligns with the single- and double-loop learning model originally presented by Argyris and Schön (1978) (Easterby-Smith & Lyles, 2011; Argyris & Schön, 1978). Organizational managers must attend to obstructions that prohibit lessons learned from progressing through the Double-Loop track. Crouse, Doyle, and Young (2011) identified 45 barrier trends, which they separated into nine distinct categories: (1) resources, (2) lack of access, (3) technological, (4) personal, (5) interpersonal, (6)

structural/cultural, (7) course/learning content, (8) power relationships, and (9) change (Crouse et al., 2011, p. 43-44).

Gino and Staats (2015) introduced four categories of barriers that target concerns: bias towards success, action, fitting in, and experts. Ten general challenges were suggested to address the various barriers; alignment can be drawn between these and items researched in Crouse et al.'s (2011) populated list. Challenges such as *lack of reflection* and *an overly narrow view of expertise* highlighted by Gino and Staats (Gino & Staats, 2015) and Crouse et al.'s (Crouse et al., 2011) *too much to learn* and *lack of access to training opportunities* with the discipline of personal mastery. Others, though, such as lack of training access and workspace, do not necessarily fit neatly into other categories of *The Fifth Discipline* (Senge, 1990; Crouse et al., 2011; Gino & Staats, 2015). Regardless of alignment, understanding existing barriers is critical for accurately evaluating learned behavior and for the improvement of organizational-process efficiency.

Facilitators are necessary to address barriers to workplace learning outcomes that otherwise halt a learning organization's progress. Crouse et al. (2011) consolidated 30 facilitators within six distinct categories: (1) cultural, (2) structural and managerial support; (3) task/job-related issues; (3) role of others; (4) assisting learning; (5) personal attributes; and (6) increasing resources (Crouse et al., 2011, pp. 45-46). Gino and Staats (2015) provided 13 facilitators to address the barriers within their bias categories (Gino & Staats, 2015). Similarly, Crouse et al. (2011) noted dynamic workplace communication-related performance interventions along with areas of emotional, attitudinal and logistical mediations. Crouse et al. (2011) identified "individual outcomes (increased self-confidence and skill) and organizational outcomes (increased revenues)" (Crouse et al. 2011, p. 46). Although increased revenue does not apply to

every organization, it illustrates the relationship between an organization's desired vision and its purpose for employing human capital to achieve that goal—along with a mutual return on investment of employees' desire to be valued within the organization.

Gino and Staats' (2015) facilitators are general but align with targeted research conducted by Crouse et al. (2011); specifically related to data-driven decision-making, reflection, and use of various soft skills (Gino & Staats, 2015). Although Crouse et al. mentioned *reflection*, they provided facilitators such as *learning from errors* and *the ability to learn from experience* (Crouse et al., 2011, p. 45). If the point of a learning organization is process improvement driven by performers' learned knowledge, then reflection is necessary for learned behaviors to travel down the double-loop learning path and be captured in governing variables (Argyris & Schön, 1978). This process ensures knowledge management is achieved and the learned behavior does not reside as organizational knowledge, the latter having the potential to be lost or not replicable (Easterby-Smith & Lyles, 2011).

Informal Learning

Many experts introduce formal learning facilitators to remove learning organization barriers. Formal learning strategies include taking courses and programs, e-learning, and reading and research (Calhoun et al., 2011; Gino & Staats, 2015). Macro- and micro-level learning is not always captured and reinforced with interventions suggested by HPT and/or ISD practice. The resulting lessons learned remain with the accomplished performer(s); thus, becoming organizational knowledge (Easterby-Smith & Lyles, 2011).

Informal learning is the unintended, experimental, and reactive learning that occurs outside a formalized workplace process, and that is not always evaluated and/or captured into the governing variables that induce the learning organization (Argyris & Schön, 1978; Berg &

Chyung, 2008). Informal learning can be either intentional or unintentional activities. The former is more easily observable and evaluated, whereas the latter is driven by experimentation or accidental performance (Berg & Chyung, 2008, p. 231). Furthermore, informal learning does not always occur within the organization but rather from a competitive nature against other benchmarked organizations. "Consequently, most organizations will develop a deficit within their boundaries as regards the critical knowledge needed to prosper and grow" (Easterby-Smith & Lyles, 2011, p. 384). Research suggests that several factors not only influence informal learning, but that it is the most frequent learning method (Berg & Chyung, 2008).

Team Learning

The theory of organizational learning and practices to achieve a learning organization require more than evaluating individual performers' learned behaviors. Gino and Staats' (2015) and Crouse et al.'s (2011) research focused on managerial levels and the execution of team dynamics, which identified barriers and facilitators of the learning organization suggesting working team dynamics must be facilitated to bring various subject matter expertise and perspectives together in order to achieve an organizational goal. (Crouse et al., 2011; Gino & Staats, 2015).

Edmondson (2012) discusses team dynamics observed during the design of the 2008 Beijing Olympics swimming and diving facility. Her research found that implementation of suggested soft skills (such as speaking up, experimenting, reflecting, listening intently, and integrating) facilitate team dynamics that produce successful results (Edmondson A. C., 2012, p. 79). Edmonson identified and categorized challenges: multi-functional collaboration, geographically dispersed members, temporary relationships, inconsistent projects and project uncertainty. Themes noted by Crouse et al. (2011) were addressed and validated within similiar

categories and suggest team learning generated high dividends at both the individual and organizational levels. Geographically dispersed teams maintaining alignment across the firm (i.e., systems thinking) is one example of dividends. (Edmondson A. C., 2012).

Evaluating Learning Organizations

Senge (1990) suggested that there is no way to achieve the perfect learning organization, and continuous improvement of practice is a way of life, like achieving enlightenment (Senge, 1990). Despite Senge's conclusion, various practitioners have attempted to develop evaluation tools to achieve a flawless learning organization. Marsick and Watkins' (2003) collaborative work on the Dimensions of the Learning Organization Questionnaire (DLOQ), focuses on their own research along with other studies (Marsick & Watkins, 2003, p. 133). The DLOQ was designed using 62 questions based on seven dimensions: (1) create systems, (2) empower people, (3) connect to the organization, (4) strategic leadership, (5) financial performance, (6) knowledge performance, and (7) mission performance (Marsick & Watkins, 2003, p. 141). These dimensions were addressed within three specifics categories: individual, group/team, and organization. While the tool correlated minimally with Senge's work aside from using the systems thinking discipline, Marsick and Watkins mentioned, "these dimensions of the learning organization (continuous learning, team learning, empowerment, and promoting dialogue and inquiry) are necessary but not sufficient conditions for promoting learning" (Marsick & Watkins, 2003, p. 141). The DLOQ has been implemented by over 200 firms, and found a correlation between organization factors, knowledge transfer and financial performance (Marsick & Watkins, 2003).

Gavin, Edmonson, and Gino published their learning organization assessment tool in 2008. Similar to Marsick and Watkins (2003), no direct affiliation to Senge's (1990) disciplines

was made to Gavin's (1993) original building blocks aside from acknowledgement of Senge's (1990) contributions. Their assessment tool is comprised of 54 questions from nine disciplines, within three major categories: (1) supportive learning environment, (2) concrete learning processes and practices, and (3) leadership that reinforces learning.

The authors noted that a manager could use the assessment tool for team assessment or by averaging each team member's results and compare the results against the benchmarking from over 200 firms that have contributed to the study (Gavin, Edmondson, & Gino, 2008, p. 114). Gavin et al. asserted that their evaluation tool's strength comes from this benchmarking against the survey results, stating "most of the organizations we surveyed identified the very same domains as their areas of strength. Openness to new ideas and education and training almost universally scored higher than other attributes or categories" (Gavin et al., 2008, p. 116). The evaluation tool assesses the perception of team learning and personal mastery that takes place within the organization, and less on whether the performer is aware of a shared vision or mental model. Gavin et al. stated that their assessment tool is used to "promote dialogue, not critique" (Gavin et al., 2008, p. 116).

Marsick and Watkins (2003) as well as Gavin, et al. (2008) developed the most unconventional evaluation tools available to assess learning organizations. Both teams noted their tools were not ideal solutions and should be used to facilitate discussion (Marsick & Watkins, 2003; Gavin et al., 2008).

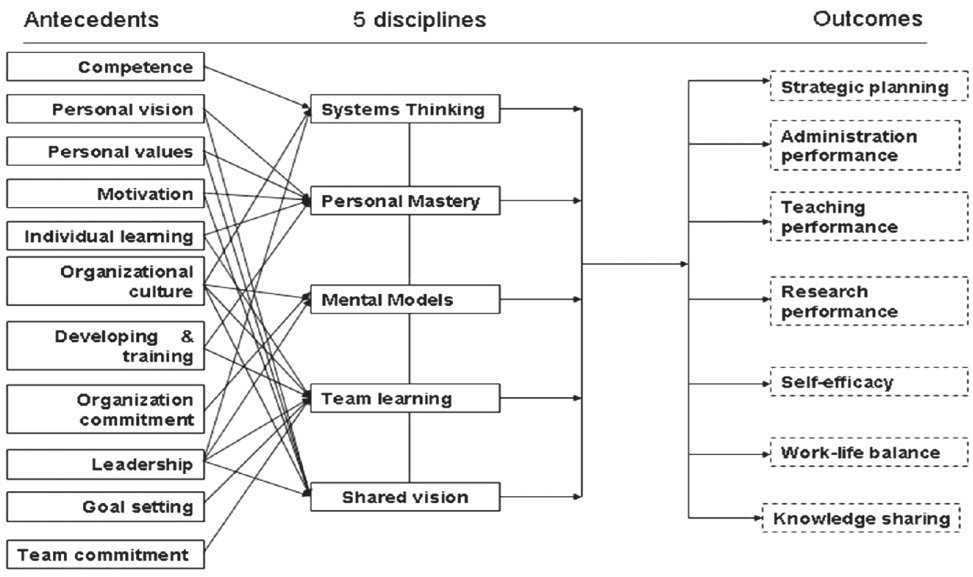
Bolman and Deal (2021) introduced the four-frame model. This model establishes structural, human resource, political, and symbolic as focus areas, and provides an approach to categorizing areas of concern when conducting a quantitative evaluation (Bolman & Deal, 2021). Bolman and Deal used current events, such as the January 6, 2021 Capitol Hill riots and the

COVID-19 epidemic, to evaluate organizations' ability to learn with the use of their four-frame model (Bolman & Deal, 2021).

Bui and Baruch's 2011 empirical evaluation compared 687 employees from two higher-education universities in the United Kingdom and Vietnam. This study placed greater emphasis on identifying antecedents, integration with Senge's five disciplines (1990), and desired performance outcomes than Marsick and Watkins' or Gavin, et al's studies. The antecendents considered in their study were typical of those effecting human performance: training and development; competence; motivation; personal vision and values; leadership; goal setting; organizational culture; and commitment (Bui & Baruch, 2012). By directly aligning their research with Senge's (1990) five disciplines, Bui and Baruch established seven outcomes: strategic planning, administration performance, teaching, research, self-efficacy, work-life balance, and knowledge sharing (Bui & Baruch, 2012). Their concept is mapped into the Learning Organization Model (Figure 7) (Bui & Baruch, 2012, p. 518).

Figure 7

The Learning Organization Model by Bui & Baruch



Note. From "Learning organizations in higher education: an empirical evaluation within an international context," by Bui & Baruch, 2011, *Management Learning,* 43(5), p. 518 (https://doi.org/10.1177/1350507611431212). Copyright 2011 by Sage Publications, Inc.

Bui and Baruch ultimately categorized the direct relationships of outcomes into three levels, even though they were based on the five disciplines. "Employing a multi-level analysis, we started at the individual level (personal mastery) through the collective level (team learning, mental models), and up to the organizational level (shared visions, systems thinking)" (Bui & Baruch, 2012, p. 516). Their methodology produced a statistically signficant correlation between the antecedents and the outcomes within the five disciplines (except for mental models at the lowest level). This difference within mental models was due to cultural disparities between the two university settings; one emphasized self-learning while the other emphasized collaborative academic research (Bui & Baruch, 2012, p. 534).

Personal Mastery

Senge (1990) envisioned personal mastery being a life-long appetite for learning. He cited master craftsmen of pottery or weaving who do not simply perform their duties expertly, but whose commitments to the profession are based on ensuring their products are "a work of art" (Senge, 1990, p. 7). Marsick and Watkins' (2003) contributions focused purely on individual performance as it pertains to the individual's direct relationship within the organization (Marsick & Watkins, 2003). Bui and Baruch (2012) incorporated variables outside of the specific organization that affected human performance. Their hypothesis was "personal values, personal vision, motivation, individual learning, and development and training" are key factors contributing to positive individual performance (Bui & Baruch, 2012, p. 518). These factors

reiterated key principles in the earliest of founding published contributions related to HPT (Gilbert, 2007).

Mental Models

In general, *mental models* are defined as the way an individual performer interprets their interaction with the assigned task. Senge's (1990) concept of mental models, which he illustrated with the example of judging a person based on their appearance, reflects Argyris' contributions (1978). Senge constantly used working examples of how the discipline of mental models aids the cultural development of assumptions to foster a learning organization (Senge, 1990). Bolman and Deal (2021) reiterated mental models' impacts in order to support their four-frame model for organizational learning. They maintained that mental models simplify for an organization's staff the complexities and difficult processes that affect the organization (Bolman & Deal, 2021).

Bui and Baruch (2012) specified fostering positive "organizational commitment, leadership and organizational culture" contribute to a positive mental models discipline (Bui & Baruch, 2012, p. 519). Although Marsick and Watkins (2003) did not explicitly cite mental models, their evaluation tool incorporates identical variables within the team-level, which aligns with Bui and Baruch (Bui & Baruch, 2012; Marsick & Watkins, 2003). Gavin et al.'s (2008) evaluation tool identified specific leadership traits but neglected organizational culture; the sole focus was communication between managers and the individual performer (Gavin et al., 2008).

Team Learning

"Team learning is vital because teams, not individuals, are the fundamental learning unit in modern organizations" (Senge, 1990, p. 10). Team learning is integral for an organization's efficiency. Marsick and Watkins (2003) recognized this fundamental aspect of team dynamics and incorporated six related questions into their research (Marsick & Watkins, 2003). Team

learning is not explicitly cited in Gavin et al.'s (2008) evaluation tool. Their three-block framework incorporates group dynamics within the *Leadership that Reinforces Learning* block questions but focuses more on leadership and management as it relates to management's ability to foster the aspect of team learning (2008). Bui and Baruch (2012) reiterated the importance of team learning to achieve a learning organization, and suggested that the six of the seven antecedents identified ((1) team commitment, (2) leadership, (3) goal setting, (4) development and training, (5) organizational culture, and (6) individual learning) contribute to the success of fostering team learning within an organization (Bui & Baruch, 2012).

Shared Vision

Senge (1990) suggested that a *shared vision* is a unifying purpose that an organization works towards collectively (Senge, 1990). An individual performer's willingness to contribute to the collective cause motivates performance if the members' vision aligns with the organization's. Marsick and Watkins' (2003) and Gavin et al.'s (2008) respective evaluation tools both capture the collaborative essence between individuals, leaders, and the organization, but appear to neglect whether the outcomes of an organization align with an individual's personal endeavors (Gavin, Edmondson, & Gino, 2008; Marsick & Watkins, 2003). Bui and Baruch (2012) suggested the antecedents of personal vision, personal values, leadership, and organizational culture directly impact the outcomes of an organization's ability to evolve (Bui & Baruch, 2012).

Systems Thinking

HPT practitioners competently improve performance by considering contributing factors while focusing on unintended consequences. Senge (1990) did not afford systems thinking much attention but did note that the framework is a well-established subject matter and requires a masterful skillset in order to be proficient (Senge, 1990). Systems thinking is reflected in all

evaluation tools cited here and shows the integration from individual to the management to the organization (Bui & Baruch, 2012; Gavin, Edmondson, & Gino, 2008; Marsick & Watkins, 2003). Bui and Baruch highlight antecedents of competence, leadership, and organizational culture directly relate to fostering outcomes necessary to achieve a learning organization (Bui & Baruch, 2012).

Depending on the complexity of an organization's challenges, the process of rectifying barriers to workplace learning varies in difficulty. Kaufman (2014) presented statistical evidence regarding individual-performance assessment and team dynamics and suggested greater process improvement could be achieved with smaller needs assessments. A full organizational analysis would therefore not be necessary. He recommended grouping the organization into a three-tier pyramidal construct: mega-level (societal and external clients) at the top; macro-level (organizational) in the middle; and micro-level (individuals and small groups) at the bottom (Kaufman, 2014, p. 37). Understanding each level's need and how they integrate with one another provides firms the means to potentially curtail its focus on process improvement. "By using this orientation, we can define the measurable variables that will allow our organization to be successful. If we are not adding value to our organization, our immediate clients, and our shared society, we are likely subtracting value." (Kaufman, 2014, p. 38). When a firm takes corrective measures, it then becomes a learning organization.

The tri-level consideration to assessing organizational performance are common features between Kaufman's (2014) and Senge's (1990) work, but are used for different purposes. Senge (1990) used the three-tiered pyramid to depict "three distinct levels: practices: what you do, principles: guiding ideas and insights, and essences: the state of being of those with high levels of mastery in the discipline" (Senge, 1990, p. 373). Kaufman (2014), however, used the tiered

model to assess organizational outcomes. Despite their differences, both highlighted a common lens used to evaluate a learning organization (Kaufman, 2014; Senge, 1990).

Conclusion

The Fifth Discipline (1990) was not only a foundational contribution to the subject of organizational learning; it also inspired the transformation from theory to adaptation of practice now known as the learning organization. Researchers investigated the intricacies of both informal and team learning, and how they impact efficiencies of the firm (Berg & Chyung, 2008; Edmondson, 2012). Although Senge (1990) never developed a learning organization evaluation tool, others have sought methods to evaluate and validate learned knowledge. The goal of these efforts was managing a firm's improvement and establishing similar theories to achieve the ideal learning organization (Marsick & Watkins, 2003; Gino & Staats, 2015).

Founding practitioners, such as Marsick and Watkins (2003) and Gavin, Edmondson, and Gino (2008), contributed to organizational learning, and have developed practical tools to evaluate learning organizations. Their work has collectively facilitated continued research—such as Bui and Baruch (2012)—towards aiding firms with evaluating internal performance and identifying the variables that affect organizational productivity (Bui & Baruch, 2012). The foundational research of organizational learning was directly affected by Senge's (1990) concepts of fostering the learning organization (Senge, 1990). Understanding the varied literature and contributions to the field allows future research and practices to better incorporate a wide range of skills to foster human performance and organizational improvement.

Chapter Three: Methodology

This study investigated various issues regarding FORCECOM's ability to utilize HPT to foster a learning organization. The evaluation targeted the workforce, whose primary responsibilities rely on utilizing and/or supporting the implementation of HPT practices to achieve FORCECOM's mission. The study aimed to capture workforce perspectives related to career, performance, and work attitudes that align with Senge's (1990) framework (Senge, 1990). The evaluation was based on the following research question:

RQ1: Is there a difference in the perceptions of *systems thinking* between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ2: Is there a difference in the perceptions of *personal mastery* between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ3: Is there a difference in the perceptions of *mental models* between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ4: Is there a difference in the perceptions of *shared vision* between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

RQ5: Is there a difference in the perceptions of *team learning* between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level of the organization?

FORCECOM appears to be operating within the single-loop learning portion of Argyris and Schön's (1978) behavior model based on the firm's conflicting and out-of-date governing variables (Argyris & Schön, 1978; Phillips, 2014). The literature suggests that in order to foster a learning organization, the combined five disciplines of systems thinking, personal mastery, mental model, shared vision and team learning "mediate the relationship between the antecedents and outcomes" to foster greater efficiency achieving a learning organization (Bui & Baruch, Learning in Organizations in higher education: An empirical evaluation within an international context, 2012, p. 521; Senge, 1990). Evaluating FORCECOM's HPT workforce aids in empirically understanding what level of organizational learning is occurring within the firm, in what level of the organization concerns arise, and to identify which of the five disciplines need improvement in order to ensure FORCECOM's continued evolution into a learning organization.

This study adopted Bui and Baruch's (2012) method of validating evaluations through both exploratory and confirmatory factor analysis and was implemented with some modification to evaluate FORCECOM to support a descriptive analysis. In contrast to the Bui and Baruch's methods, this study compared perspectives of two groups within a single organization rather than two separate but similar organizations (Bui & Baruch, 2012).

Participants and Setting

USCG utilizes server-based information technology that consolidates various authoritative organizational data into a unified data infrastructure known as the Enterprise Data Warehouse. Human resources data related to the organizational construct and the role of its workforce is provided to the Enterprise Data Warehouse from the authoritative system known as Direct Access. Information within the Enterprise Data Warehouse is readily accessible to any USCG member through a simplified graphical user interface known as Coast Guard Business

Intelligence (CGBI). CGBI allows members to filter the data in order to obtain consolidated reports.

Population Size

At the highest level, CGBI reports a total population of 5,748 positions throughout FORCECOM; this includes all subordinate commands and eight major training centers. Data also conclude an 85% employment gap with a total of 4,939 people currently employed within the allotted positions at the time of writing. This gap is due to several factors, including position reallocation, workforce attrition, and accession delays.

The FORCECOM enterprise consists of two main staff elements located in Washington D.C. and Norfolk, Virginia, and two liaison officers located in Florida. The workforce assigned to the Performance Technology Center in Yorktown, Virginia is calculated as part of the FORCECOM staff element. FORCECOM's eight major training centers are Training Center Cape May in New Jersey; Training Center Yorktown in Virginia; Training Center Petaluma in California, Aviation Training Center in Mobile, Alabama; Aviation Technical Training Center in Elizabeth City, North Carolina; the Special Missions Training Center in Camp Lejeune, North Carolina; the Leadership Development Center in New London, Connecticut; and the Maritime Law Enforcement Academy in Charleston, South Carolina. There are also five small, contingent regional fisheries schools that report directly to the Maritime Law Enforcement Academy, and the National Motor Lifeboat School in Cape Disappointment, Washington, which is directly supported by Training Center Yorktown. FC-A also has 17 field units that contribute to the execution of FORCECOM's mission. Figure 8 is a representation of the major components within FORCECOM (U.S. Coast Guard Force Readiness Command, n.d.).

Figure 8

Locations of major FORCECOM commands.

Participant Selection

This study captured a baseline perspective of a subset of the FORCECOM population that directly supports the analysis, design, and development of HPT practices; leaders supporting high-level implementation and evaluation were also included. Filtered CGBI data from the FORCECOM population identified a non-probability population of approximately 240 participants for evaluation consideration. At the FORCECOM staff level, excluded participants with the armory workforce and inspectors from FC-A, as well as FC-B human resources, administration, and other financial-management personnel. Those retained for participation were military and civilian members assigned to either directly lead and/or manage policy execution that impact HPT practices. All members of FC-T and FC-CI divisions were selected for participation.

Training Center Cape May, Training Center Yorktown, Training Center Petaluma, and Aviation Training Center are larger commands and operate as isolated units consisting of an additional workforce focused on facility engineering and ancillary functions. The remaining four training centers—Aviation Technical Training Center, Special Missions Training Center, Leadership Development Center, and Maritime Law Enforcement Academy—are tenant commands with relatively smaller workforces due to shared services provided by outside support. Not all training centers share organizational constructs; however, they all possess performance systems branches (or equivalents) staffed with full-time HPT practitioners and implementation support personnel. In addition, some training centers have designated training/deputy officers who have HPT backgrounds.

Table 1

FORCECOM non-probability participant selection by unit

Unit Name	Military	Civilian	Total
FORCECOM	2	1	3
Training (FC-T)	37	37	73
Assessments (FC-A)	26	5	31
Career Investments (FC-CI)	0	6	6
Business Operations (FC-B)	11	12	23
Training Center Cape May (TCCM)	3	6	9
Training Center Petaluma (TCP)	4	12	16
Training Center Yorktown (TCY)	1	25	26
Aviation Training Center (ATC)	1	14	15
Aviation Technical Training Center (ATTC)	2	5	7
Special Missions Training Center (SMTC)	2	8	10
Leadership Development Center (LDC)	2	7	9

Maritime Law Enforcement Center (MLEA)	2	10	12
Grand Total	93	148	240

Note. Non-probability participant selection derived from *Coast Guard Business Intelligence (CGBI)* data generated on January 27, 2022, generally excludes members in positions that provide instruction, conduct assessments/armory duty, and execute human resources/administration and financial processes. Supervisors and/or managers who oversee HPT practitioners were incorporated at the FORCECOM division level (i.e., FC-T, FC-A, FC-B, FC-CI). Training center figures only target personnel assigned to performance systems branches or equivalent and training/deputy training officers.

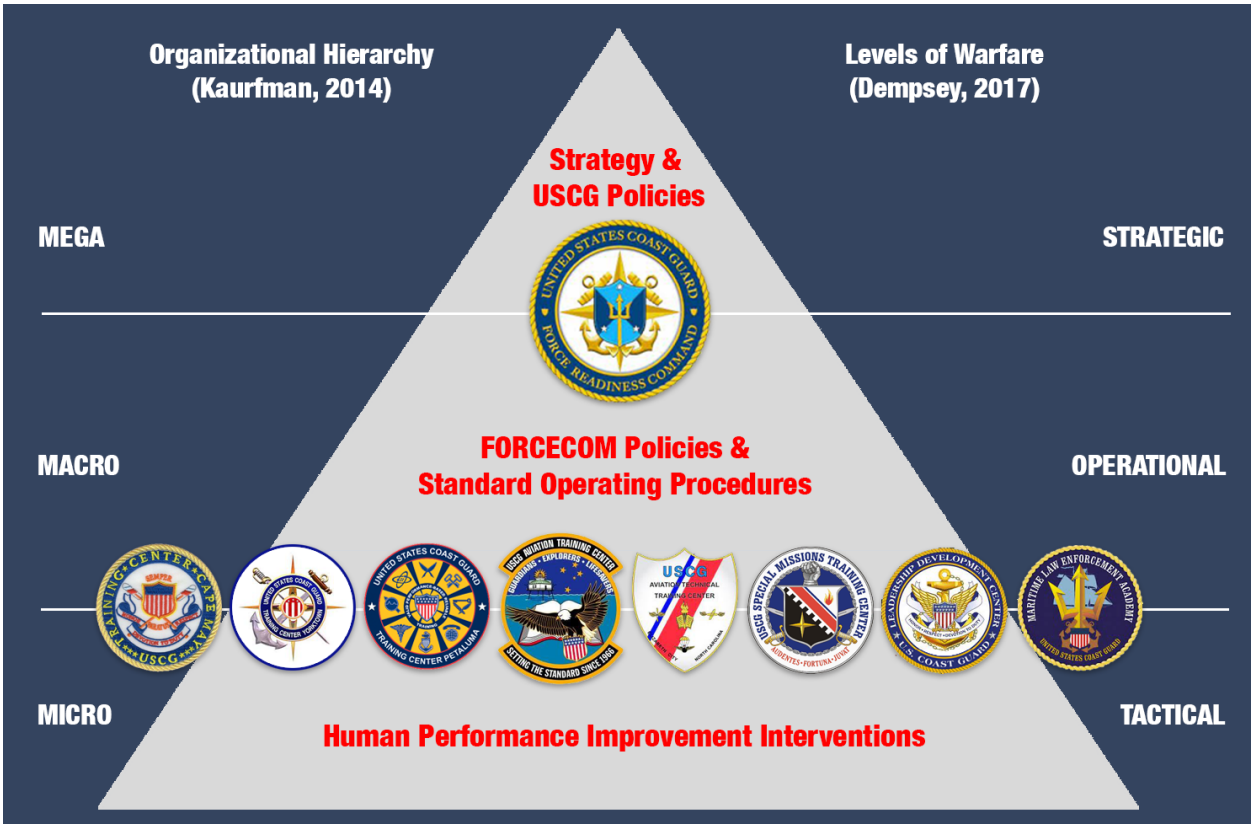
Research Design

This research entailed an empirical evaluation with the use of a survey and quantitative methods to deduce whether FORCECOM practitioners leverage HPT competence to foster a learning organization. Literature suggests learning organizations with a positive execution of knowledge management induces organizational process improvement (Easterby-Smith & Lyles, 2011; Argyris & Schön, 1978). In order to establish the cause-and-effect relationship of FORCECOM's governing variables with FORCECOOM's workforce, two groups were chosen based on Kaufman's (2014) pyramidal organizational hierarchy of three levels of outcomes. This organizational hierarchy aligns with typical military organizations, which capitalize the levels of warfare. The levels of warfare state "the strategic, operational, or tactical purpose of employment depends on the nature of the objective, mission, or task" (Dempsey, Joint Publication 1, 2017, pp. I-7).

FORCECOM's overall mission is to provide performance consultation to USCG, and therefore, acts as a medium between the mega/strategy and macro/operational levels. Per Argyris and Schön's research (1978), FORCECOM has a responsibility to implement governing variables, both upward to ensure strategic alignment with its clientele, as well as downward to ensure performance standardization across its enterprise (Argyris & Schön, 1978). Consequently, leadership, practitioners, and supporting staff residing between the macro/operational and micro/tactical level would be responsible for the interpretating governing variables and ensuring implementation of performance improvement interventions in accordance with FORCECOM policies. This performance generally resides at the training center performance systems branches, the FC-A teams, and/or projects with complete USCG implementation reside at the PTC. Figure 8 illustrates organizational alignment within FORCECOM based on Kaufman's (2014) and Dempsey's (2017) theories, and the major performance outcomes the contribute to the single- and double-loop learning models (Argyris & Schön, 1978; Dempsey, 2017; Kaufman, 2014).

Figure 9

Hierarchy of FORCECOM organization and major performance outcomes



The purpose of RQ2 was to determine how perceptions of antecedents and disciplines differ between those performing duties within the strategic/operational level and the operational/tactical level of the organization. Separation of the selected participants into two groups based on responsibilities within the organizational hierarchy was necessary. This grouping aided evaluation of the workforce's perspective relative to the cause-and-effect of FORCECOM's governing variables and its impact on HPT practitioners.

The organization hierarchy (levels of war) establishes three distinct levels where outcomes impact an organization (Dempsey, 2017; Kaufman, 2014). FORCECOM operates between those levels to ensure interpretation of policies are executed. Those operating at the

mega/macro or strategic/operational levels facilitate the interpretation and application of higher-level strategies and policies. The other group operates between macro/micro or operational/tactical level. This demarcation of responsibilities within the organizational hierarchy supports the need for comparison groups. The higher-level group that supports policy and procedures were classified into Group A, and members within the lower level who execute the procedures were classified into Group B.

Established alignment of the non-probability participation selection with the outlined organizational framework required minimal additional filtration of the CGBI data. All 86 members at training centers were categorized as Group B. Slightly less than half (46%) of the 73 FC-T positions were assigned to Group A due to their high-level leadership positions and roles managing HPT governance. Positions within the PTC were reallocated to Group B, as they relate to the execution of HPT analysis and e-learning development. All members of FC-CI and FC-B operate within high-level staff elements and were assigned to Group A.

The nature of FC-A's work is not supported by training center performance support branches. Members of this 31-person workforce fulfill duties at all three levels of the organization. Communications with senior leadership of FC-A required manual intervention, and the 10 members performing sole duties at the strategic/operational level were assigned to Group A. The remaining 21 members were reassigned to Group B based on their primary duties being more closely aligned with the operational/tactical level.

The comparison groups suggest a total of 76 members with a primary focus of supporting higher-level operations that directly affect FORCECOM-enforced governing variables. 164 members are assigned duties directly related to HPT practices and/or support human performance interventions. The segregated data suggests a balanced population pyramid, where

31% of the workforce at the top support 66% of the workforce at the bottom. See Table 2 for specific allocation figures.

Table 2

Comparison Group non-probability participant selection by unit

Group	Unit Name	Military	Civilian	Total
A	FORCECOM	2	1	3
A	Training (FC-T)	24	10	34
A	Assessments (FC-A)	8	2	10
A	Career Investments (FC-CI)	0	6	6
A	Business Operations (FC-B)	11	12	23
	Group A Total	45	31	76
B	FC-T, specifically PTC workforce	12	27	39
B	FC- A, specifically Assessment Team leads	18	3	21
B	Training Center Cape May (TCCM)	3	6	9
B	Training Center Petaluma (TCP)	4	12	16
B	Training Center Yorktown (TCY)	1	25	26
B	Aviation Training Center (ATC)	1	14	15
B	Aviation Technical Training Center (ATTC)	2	5	7
B	Special Missions Training Center (SMTC)	2	8	10
B	Leadership Development Center (LDC)	2	7	9
B	Maritime Law Enforcement Center (MLEA)	2	10	12
	Group B Total	47	117	164

Note. Comparison group non-probability participant selection data derived from Coast Guard Business Intelligence (CGBI) data generated on January 27, 2022.

Data Sources and Collection Procedure

No previous research directly assessed organizational learning related to FORCECOM; thus, no control group data was presented in order to conduct trend or gap analysis. During initial research, consideration was given to provide selected participants a policy-/SOP-focused survey in order to validate their understanding of governing variables. This approach would have utilized Kirkpatrick's (2006) method of evaluating training programs to explore how policy guides learned knowledge and skills (Level 2) to affect behavioral change (Level 3) (Kirkpatrick & Kirkpatrick, 2006). Senge's five disciplines suggest that several factors could affect the ability to achieve the learning organization aside from policy (Senge, 1990). To eliminate biases or coached questioning, this study established a baseline standard through existing, proven methods.

Contributions by Bui and Baruch (2012) suggest the most direct correlation to *The Fifth Discipline* (Senge, 1990); however, their work did not specify the questions within the evaluation instrument (Bui & Baruch, Learning in Organizations in higher education: An empirical evaluation within an international context, 2012; Senge, 1990). Specific questions and derived references were provided by Bui to this study's author (Bui, RE: Learning Organization Research, 2022). Bui and Baruch's survey was designed to evaluate learning organizations in higher education. The study's author adopted all questions verbatim, with minor modifications to the communication questions to align them governing variables and to ensure clear interpretation by respondents. The questions provided by Bui to the study's author addressed antecedents, the five disciplines, and outcomes. FORCECOM's outcomes, however, did not always align with outcomes established by Bui and Baruch (2022). Because of the potential differences between

higher education and FORCECOM, questions related to outcomes were not used (Bui, 2022; Bui & Baruch, 2012).

A solicitation for participation was delivered directly to the 206 identified FORCECOM members via means of an undisclosed email from the researcher with a one-month duration to contribute perspectives with no reminder notifications and a direct link to a survey. The survey was developed using the Qualtrics online survey tool and designed to guide the participant through 15 total pages. The first page consisted of the privacy act statement and was followed by a question asking participants one demographic-specific question about their position in FORCECOM. This question's inclusion ensured comparative results between members who operate within the mega/macro level, and those interpreting governing variables as well as HPT practitioners at the macro/micro level. The remaining pages of the survey consisted of the 11 antecedents with their accompanying questions, a page for the questions pertaining to the governing variables and concluded with a single page with all 25 discipline questions.

Antecedents

Bui and Baruch's (2012) model suggested 11 antecedents contribute to fostering a learning organization; this study adopted survey questions from various empirical studies related to the 11 antecedents (Bui, 2022; Bui & Baruch, 2012). Tables 3 through 15 separate each of the 11 antecedents and introduce the affiliated questions used in the survey along with each factor's measurement criteria using a seven-point Likert scale. These questions can also be found in the actual survey format in the FORCECOM Learning Organization Survey in Appendix E.

Table 3

Competence questions

		Strongly Disagree		Strongly Agree
1.	I am confident about my ability to do my job.	1 – 2 – 3	4	5 – 6 – 7
2.	I am self-assured about my capacity to perform my work activities.	1 – 2 – 3	4	5 – 6 – 7
3.	I have mastered the skills necessary for my job.	1 – 2 – 3	4	5 – 6 – 7

Note. Competence measurement derived from empirical contributions from Spreitzer (Bui, 2022; Spreitzer, 1995).

Table 4

Organizational Culture questions

Please indicate how you would describe the organizational culture at FORCECOM on the following scales								
Stable	1	2	3	4	5	6	7	Dynamic
Closed/Bureaucratic	1	2	3	4	5	6	7	Open/Interactive
Reactive	1	2	3	4	5	6	7	Proactive
Individual Oriented	1	2	3	4	5	6	7	Group Oriented
Aggressive	1	2	3	4	5	6	7	Accommodating
Reserved	1	2	3	4	5	6	7	Friendly

Note. Organizational Culture measurement derived from empirical contributions from Meyer and Allen (Bui, 2022; Meyer & Allen, 1991).

Table 5

Leadership questions

		Strongly Disagree		Strongly Agree
1.	FORCECOM continually looks for opportunities to learn for his/her professional development.	1 – 2 – 3	4	5 – 6 – 7
2.	FORCECOM generally supports requests for training and development opportunities.	1 – 2 – 3	4	5 – 6 – 7
3.	FORCECOM usually empowers others to help carry out the organization's vision.	1 – 2 – 3	4	5 – 6 – 7
4.	FORCECOM mentors those he/she leads.	1 – 2 – 3	4	5 – 6 – 7
5.	FORCECOM often ensures that the organization's actions are consistent with its values.	1 – 2 – 3	4	5 – 6 – 7
6.	FORCECOM shares up-to-date information with employees about the FORCECOM's directions.	1 – 2 – 3	4	5 – 6 – 7

Note. Leadership measurement derived from Marsick and Watkins' (2003) Dimensions of the Learning Organization Questionnaire (DLOQ) (Bui, 2022; Marsick & Watkins, 2003).

Table 6

Personal Vision questions

		Strongly Disagree		Strongly Agree
1.	I set up career goals of my own.	1 – 2 – 3	4	5 – 6 – 7
2.	I have my personal vision for my career.	1 – 2 – 3	4	5 – 6 – 7
3.	Part of my personal vision is to make FORCECOM more successful.	1 – 2 – 3	4	5 – 6 – 7
4.	I understand how the work I do helps FORCECOM achieve its vision.	1 – 2 – 3	4	5 – 6 – 7

Note. Personal Vision measurement derived from empirical contributions from Bui and Baruch (Bui, 2022).

Table 7

Personal Values questions

	Please study the list carefully and then rate each thing on how important it is in your life.	Unimportant		Very Important
1.	Warm relationships with others	1 – 2 – 3	4	5 – 6 – 7
2.	Security	1 – 2 – 3	4	5 – 6 – 7
3.	Self-fulfillment	1 – 2 – 3	4	5 – 6 – 7
4.	Self-respect	1 – 2 – 3	4	5 – 6 – 7
5.	Sense of accomplishment	1 – 2 – 3	4	5 – 6 – 7

Note. Personal Values measurement derived from empirical contributions from Kahle (Bui, 2022; Kahle, 1983).

Table 8

Motivation questions

		Strongly Disagree		Strongly Agree
1.	I don't mind taking on extra duties and responsibilities in my work with FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
2.	I work hard and try to do as good a job as possible.	1 – 2 – 3	4	5 – 6 – 7
3.	I look forward to coming to work.	1 – 2 – 3	4	5 – 6 – 7
4.	I am very personally involved in my work.	1 – 2 – 3	4	5 – 6 – 7

Note. Motivation measurement derived from empirical contributions from Siebold (Bui, 2022; Siebold, 1994).

Table 9

Individual Learning questions

		Strongly Disagree		Strongly Agree
1.	My own learning and development at work are essential to me.	1 – 2 – 3	4	5 – 6 – 7
2.	I like being on a steep learning curve at work.	1 – 2 – 3	4	5 – 6 – 7
3.	I prefer activities that provides me the opportunity to learn something new.	1 – 2 – 3	4	5 – 6 – 7
4.	I am committed to life-long learning.	1 – 2 – 3	4	5 – 6 – 7

Note. Individual Learning measurement derived from empirical contributions from Baruch and Peiperl (Bui, 2022; Baruch & Peiperl, 2000).

Table 10

Development and Training questions

		Strongly Disagree		Strongly Agree
1.	FORCECOM encourages this staff to develop team-working skills.	1 – 2 – 3	4	5 – 6 – 7
2.	FORCECOM encourages this staff to identify skills they need to adapt to changes.	1 – 2 – 3	4	5 – 6 – 7
3.	I was mentored when I first took up the job here.	1 – 2 – 3	4	5 – 6 – 7
4.	I receive the training I need to perform my current job effectively.	1 – 2 – 3	4	5 – 6 – 7

Note. Development and Training measurement derived from empirical contributions from Bui and Baruch (Bui, 2022).

Table 11

Organizational Commitment questions

		Strongly Disagree		Strongly Agree
1.	I would be very happy to spend the rest of my career with FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
2.	I enjoy discussing FORCECOM with people outside it.	1 – 2 – 3	4	5 – 6 – 7
3.	I really feel as if FORCECOM's problems are my own.	1 – 2 – 3	4	5 – 6 – 7
4.	FORCECOM has a great deal of personal meaning to me.	1 – 2 – 3	4	5 – 6 – 7

Note. Organizational Commitment measurement derived from empirical contributions from Meyer and Allen (Bui, 2022; Meyer & Allen, 1991).

Table 12

Goal Setting questions

		Strongly Disagree		Strongly Agree
1.	My team set clear goals before we really start any project.	1 – 2 – 3	4	5 – 6 – 7
2.	Team members are encouraged to participate in the process of goal setting.	1 – 2 – 3	4	5 – 6 – 7
3.	The goals assigned to our team members are equitable.	1 – 2 – 3	4	5 – 6 – 7

Note. Measurement of Goal Setting derived from empirical contributions from Ivancevich and McMahon (Bui, 2022; Ivancevich & McMahon, 1977).

Table 13

Team Commitment questions

		Strongly Disagree		Strongly Agree
1.	I feel at home among my colleagues at work.	1 – 2 – 3	4	5 – 6 – 7
2.	I try to invest effort into a good atmosphere in my team.	1 – 2 – 3	4	5 – 6 – 7
3.	In my work, I let myself be guided by the goals of my team.	1 – 2 – 3	4	5 – 6 – 7
4.	When there is social activity with my team, I usually get involved.	1 – 2 – 3	4	5 – 6 – 7

Note. Measurement of Team Commitment derived from empirical contributions from West (Bui, 2022; West, 2004).

In addition to the 11 antecedents, one precursor neglected to address the use of governing variables. Bui and Baruch's (2012) learning organization model was based on a desired outcome of knowledge sharing. FORCECOM'S governing variables typically dictate SOPs, and the workforce must adhere to execute processes accordingly. Five questions related to the measurement of communications were incorporated in the survey provided by Bui (Bui, 2022; Bui & Baruch, 2012). The five communication questions were adapted for and incorporated into this survey to address specific governing variables required by FORCECOM at every organizational hierarchy level (Dempsey, 2017; Kaufman, 2014).

Four document types (i.e., strategy plans, commandant instructions, FORCECOM instructions, and SOPs) are used generally used as governing variables. Specific communication-related questions from Bui and Baruch's evaluation tool were used to measure participants' perspectives on the types of governing variables that foster or obstruct a learning organization

(Bui, 2022, Bui & Baruch, 2012). This resulting data measured the way that FORCECOM's workforce operates within a single- or double-loop learning aspect (Argyris & Schön, 1978). Use of Bui and Baruch's (2012) communication criteria evaluated factors of timeliness, accuracy, adequacy, completeness, and creditability. Adaptation of the five questions applied to strategy plans, and FORCECOM-published commandant instructions were included to draw focus to the levels between strategic/operational, and to measure the workforce's perspective of how FORCECOM policy and procedures impact at operational/tactical level.

Table 14

Governing Variables questions

In supporting the execution of my duties, FORCECOM Strategy Plans are:							
Untimely	1	2	3	4	5	6	7	Timely
Inaccurate	1	2	3	4	5	6	7	Accurate
Inadequate	1	2	3	4	5	6	7	Adequate
Incomplete	1	2	3	4	5	6	7	Complete
Not Credible	1	2	3	4	5	6	7	Credible
In supporting the execution of my duties, FORCECOM's Commandant Instructions are:							
Untimely	1	2	3	4	5	6	7	Timely
Inaccurate	1	2	3	4	5	6	7	Accurate
Inadequate	1	2	3	4	5	6	7	Adequate
Incomplete	1	2	3	4	5	6	7	Complete
Not Credible	1	2	3	4	5	6	7	Credible
In supporting the execution of my duties, FORCECOM Instructions are:							
Untimely	1	2	3	4	5	6	7	Timely
Inaccurate	1	2	3	4	5	6	7	Accurate
Inadequate	1	2	3	4	5	6	7	Adequate
Incomplete	1	2	3	4	5	6	7	Complete

Not Credible	1	2	3	4	5	6	7	Credible
In supporting the execution of my duties, Standard Operating Procedures are:								
Untimely	1	2	3	4	5	6	7	Timely
Inaccurate	1	2	3	4	5	6	7	Accurate
Inadequate	1	2	3	4	5	6	7	Adequate
Incomplete	1	2	3	4	5	6	7	Complete
Not Credible	1	2	3	4	5	6	7	Credible

Note. One question sought five factors on a seven-point extremity scale related to the measurement of governing variables was derived from empirical contributions from Bui and Baruch (Bui, RE: Learning Organization Research, 2022).

Because there is a large amount of questions used in the survey and the Learning Organization Model by Bui and Baruch (Figure 7) is complex, Table 15 outlines the antecedent-discipline correlation to better comprehend the relationship between the various components (Bui & Baruch, 2012).

Table 15:

Evaluation Matrix

Antecedent	**Table**	**Number of Questions**	**Discipline**
Competence	3	3	Systems Thinking
Organizational Culture	4	6	Systems Thinking Mental Models Shared Vision Team Learning
Leadership	5	6	Systems Thinking Mental Models Shared Vision

			Team Learning
Personal Vision	6	4	Personal Mastery Shared Vision
Personal Values	7	5	Personal Mastery Shared Vision
Motivation	8	4	Personal Mastery Shared Vision
Individual Learning	9	4	Personal Mastery Team Learning
Development and Training	10	4	Personal Mastery Team Learning
Organizational Commitment	11	4	Mental Model
Goal Setting	12	3	Team Learning
Team Commitment	13	4	Team Learning
Governing Variables	14	20	Shared Vision Team Learning

Five Disciplines

The final portion of the survey implemented questions directly related to the five disciplines. Bui and Baruch (2012) adapted the first 20 questions from qualitative empirical research conducted by Reed (2001), and converted them for quantitative measurement (Bui, 2022; Bui & Baruch, 2012; Reed, 2001). The remaining five questions were developed by Bui and Baruch and are specifically related to the discipline of mental models (Bui, 2022; Bui & Baruch, 2012).

Table 16:

Five Disciplines questions

	Please indicate the extent to which you agree or disagree with the following statements.	Strongly Disagree		Strongly Agree
1.	There is no gap between my current position at FORCECOM and the position I would like to reach.	1 – 2 – 3	4	5 – 6 – 7
2.	I have a personal goal of moving beyond my current position within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
3.	I have a clear idea of my personal future as an employee within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
4.	As an employee of FORCECOM, I am encouraged to explore the way things are being done.	1 – 2 – 3	4	5 – 6 – 7
5.	I have a clear picture of my current position within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
6.	I solve most problems with help from people from different departments.	1 – 2 – 3	4	5 – 6 – 7
7.	My ideas are usually used within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
8.	People on my team usually work well together.	1 – 2 – 3	4	5 – 6 – 7
9.	We sometimes form informal groups on our own to solve problems within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
10.	I am encouraged to solve problems with my colleagues before discussing them with FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
11.	I understand FORCECOM's vision.	1 – 2 – 3	4	5 – 6 – 7
12.	I understand how FORCECOM's mission is to be achieved.	1 – 2 – 3	4	5 – 6 – 7
13.	FORCECOM's mission statement identifies values to which I, as an employee, am expected to conform.	1 – 2 – 3	4	5 – 6 – 7
14.	I am an important part of FORCECOM's vision.	1 – 2 – 3	4	5 – 6 – 7
15.	Overall, I accept and support FORCECOM's mission.	1 – 2 – 3	4	5 – 6 – 7

16.	I believe that my job has an impact on the whole FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
17.	I have the power to change things within FORCECOM.	1 – 2 – 3	4	5 – 6 – 7
18.	FORCECOM encourages staff to see themselves as interrelated parts with the others.	1 – 2 – 3	4	5 – 6 – 7
19.	FORCECOM encourages team learning and working.	1 – 2 – 3	4	5 – 6 – 7
20.	FORCECOM encourages its staff to work in a systematic way.	1 – 2 – 3	4	5 – 6 – 7
21.	FORCECOM treats its staff fairly.	1 – 2 – 3	4	5 – 6 – 7
22.	FORCECOM provides necessary skills for professional development.	1 – 2 – 3	4	5 – 6 – 7
23.	FORCECOM provides opportunities for professional development.	1 – 2 – 3	4	5 – 6 – 7
24.	FORCECOM has an appropriate mechanism to bring staff together to develop the best ways of problem solving.	1 – 2 – 3	4	5 – 6 – 7
25.	When there is a problem in my department, we also seek help to handle the problem from other units of FORCECOM.	1 – 2 – 3	4	5 – 6 – 7

Note. 25 questions related to the measurement of the five disciplines derived from empirical contributions from Bui and Baruch, and Reed (Bui, 2022; Reed, 2001).

In summary, the 67-question survey was comprised of 13 small pages and took approximately 10 to 15 minutes to complete. The length of time for survey completion was originally calculated from Bui and Baruch's (2022) survey solicitation message; a pilot test from five USCG members that reside outside the population group validated this data. The evaluation instrument, which obtained perspective related to the antecedents, used a seven-point Likert scale to correlate findings with the five disciplines and governing variables that support a learning

organization. In order to align with this study's purpose of establishing a baseline standard by utilizing existing proven methods, no other data-collection methods were used during this study.

Data Analysis Procedure

Upon completion of data collecting, summary statistics for each research question were parsed out to include the discipline specific questions as well as those addressing correlating antecedents. The data was then compiled into tables to determine the total sample means response as well as the mean response for both groups. The use of inferential statistics T-tests calculated if any statistically significant difference existed between those performing duties within the Strategic/Operational Level (Group A) of the organization from those performing duties within the Operational/Tactical Level (Group B). Differences in responses where the P-Value of 0.10 or less indicated a significant difference in group specific means scores. Incorporating the t-test established insight into perspectives of each antecedent and disciplines from both groups, and to inform FORCECOM of the perceived gaps, if any, that could be addressed to necessarily improve the learning organization, but where disparities exist in the organization.

Senge (1990) suggests all five disciplines are interrelated with one another and his notion is validated within the evaluation tool devised by Bui and Baruch (2012) by way of the majority of antecedents are affiliated with two or more of the disciplines (Bui & Baruch, 2012; Senge, 1990). Because the same antecedent questions were integrated throughout the five disciplines, descriptive analysis was utilized to lend information about what factors would have differences. Research questions sought to obtain perspectives and identified differences in opinions between two groups of participants, descriptive analysis using the organizational total percentages was also taken into consideration to identify strength and weakness on many organizational factors.

Chapter Four: Results and Findings

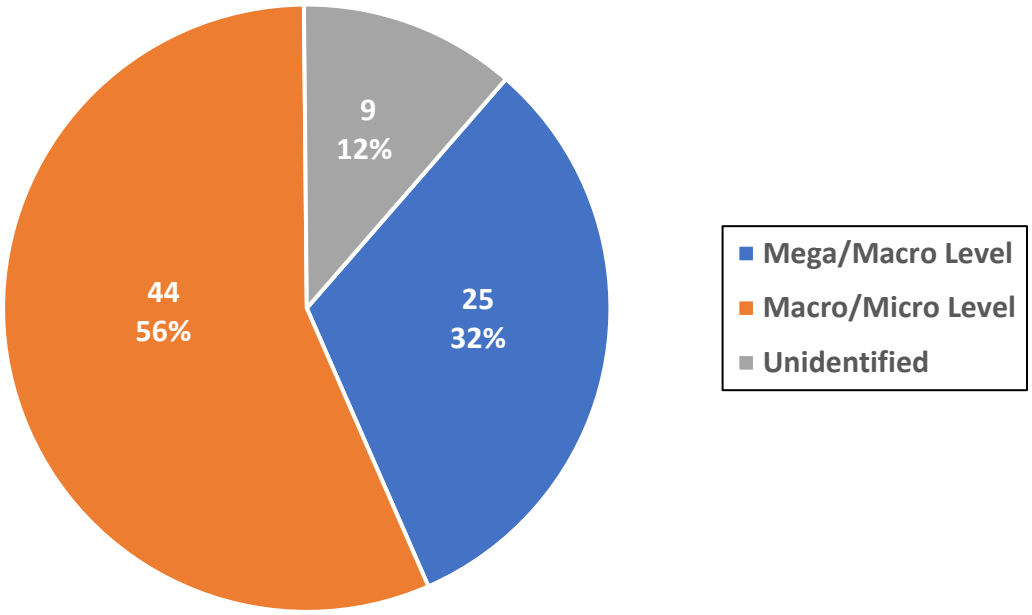
According to the CGBI data warehouse, approximately 240 of the selected FORCECOM participants have or had roles and responsibilities that reflect HPT practice integration. From the 240 identified positions, 206 participants received the learning organization survey; this provided an 85% opportunity for FORCECOM employees to provide feedback. The 15% gap between participants and positions could be attributed to position vacancies within the civilian human resource process, military transfers, and/or gaps in position assignments. The evaluation instrument remained open to the 206 selected participants for a three-week duration, and 78 participants provided feedback in that period. Of the total, 128 participants chose not to contribute to the survey.

Of the 78 participants, 69 of the participants were willing to identify where they worked within the FORCECOM organizational hierarchy. The nine respondents who did not distinguish their primary roles were not incorporated into the findings since the research aimed to compare the strategic/operational or mega/macro level (Group A) from those within the operational/tactical or macro/micro level (Group B).

Of the remaining 69 participants, 25 participants responded that they worked within FORCECOM at the higher level of the organization (Group A). The remaining 44 participants disclosed working for either the PTC, one of the eight training centers, or with an assessment team (Group B). Review of the data also found gaps where participants chose not to answer specific questions in mid participation of the survey.

Figure 10

Participant Demographics



Bui and Baruch (2012) suggested eleven antecedents influence Senge's (1990) five disciplines (Bui & Baruch, 2012; Senge, 1990). Bui and Baruch's research validated several questions derived from academic research by using factor analysis for each of the antecedents in conjunction with 25 specific questions related to the disciplines. Their approach was replicated for this study (Bui & Baruch, 2012). This study's focus was determining whether there are differences in the perceptions of (RQ1) systems thinking, (RQ2) personal mastery, (RQ3) mental model, (RQ4) shared vision, and (RQ5) team learning between those within the strategic/operational level of the organization hierarchy from those within the operational/tactical level.

Research Question 1 (RQ1)

Is there a difference in the perceptions of *systems thinking* between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization?

Five specific questions from the overall 25 discipline questions (Table 16) were identified by Bui and Baruch's (2012) contributions (Bui, 2022; Bui & Baruch, 2012). Participants were asked to rate their perception of each statement on a seven-point Likert scale; 1 through 3 quantifying disagreement and 5 through 7 being used to quantify agreement.

Responses to the first question (i.e., "When there is a problem in my department, we also seek help to handle the problem from other units of FORCECOM.") showed an equal 41% on either side of the Likert scale. For Question Two ("I believe that my job has an impact on the whole FORCECOM."), 75% of participants agreed their job has an impact on FORCECOM as a whole, whereas 17% disagreed. When asked in question three whether participants felt they had the power to change things within FORCECOM, 44% agreed while 37% disagreed. Forty-eight percent of respondents agreed that FORCECOM encourages staff to see themselves as an integral part with others in the organization, while 35% disagreed. Fifty-two percent of participants agreed that FORCECOM encourages team learning and working, while 33% disagreed.

The data in Table 17 shows no calculated p-values of less than 0.05 for any of the five questions. This data suggests that there is no statistically significant difference of perspectives when comparing those performing HPT duties at the strategic/operational level of the FORCECOM organizational hierarchy from those performing duties at the operational/tactical level.

Table 17

Systems Thinking Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	When there is a problem in my department, we also seek help to handle the problem from other units of FORCECOM.	3.85	4.19	3.64	-0.550	-1.053	0.2972
2.	I believe that my job has an impact on the whole FORCECOM.	5.32	5.48	5.22	-0.260	-0.534	0.5956
3.	I have the power to change things within FORCECOM.	3.96	4.43	3.67	-0.760	-1.414	0.1634
4.	FORCECOM encourages staff to see themselves as interrelated parts with the others.	4.14	4.57	3.88	-0.690	-1.240	0.2206
5.	FORCECOM encourages team learning and working.	4.20	4.48	4.03	-0.450	-0.855	0.3965

Note. N for Group A = 21; Group B = 33

Per Bui and Baruch (2012), three antecedents— (1) competence, (2) organizational culture, and (3) leadership—have a direct correlation on the systems thinking discipline to support fostering a learning organization (Bui & Baruch, 2012). Of these antecedents, competence is the only antecedent directly related to the systems thinking discipline and that does not contribute to another discipline. The organizational culture and leadership antecedents not only have a direct correlation with the systems thinking discipline, but also affect the mental model, shared vision, and team learning disciplines (Bui & Baruch, 2012).

Competence

67 of the 69 participants responded to the three questions regarding factors for the competence antecedent. When asked to whether they agree or disagree with the statement "I am confident about my ability to do my job," approximately 91% agreed and 3% disagreed. Ninety-three percent of participants agreed when asked if they are self-assured about their capacity to perform their work activities, and 3% disagreed. Eighty-eight percent of participants agreed they have mastered the skills necessary to perform their job; 7% disagreed. The data in Table 18 suggests no statistically significant difference of perspective between Group A and Group B for any of the three factors related to the competence antecedent.

Table 18

Competence Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I am confident about my ability to my job.	6.33	6.13	6.44	0.310	1.118	0.2675
2.	I am self-assured about my capacity to perform my work activities.	6.30	6.08	6.42	0.340	1.377	0.1733
3.	I have mastered the skills necessary for my job.	5.93	6.13	6.44	0.310	0.971	0.3351

Note. N for Group A = 25; Group B = 43

Organizational Culture

66 participants responded when asked to indicate how they would describe the organizational culture at FORCECOM using a seven-point Likert scale against six different factors. Less than 14% perceived the FORCECOM culture as stable, and 58% perceived it as

dynamic. Forty-five percent felt FORCECOM is a closed/bureaucratic culture, whereas approximately 27% believed it is open/interactive. Seventy percent perceived FORCECOM as reactive, and fewer than 14% felt it is proactive. Twenty-five percent felt FORCECOM is individual oriented, whereas 45% suggested it is group oriented. When asked whether the culture is aggressive, 23% agreed whereas 42% replied that it is accommodating. Thirty percent believed FORCECOM is reserved and 45% believed it is friendly. Table 19 shows that the comparison between Group A to Group B yielded no statistically significant differences of perspectives.

Table 19

Organizational Culture Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	Stable:Dynamic	4.95	5.25	4.78	-0.470	-1.091	0.2795
2.	Closed/Bureaucratic:Open/Interactive	3.55	3.88	3.36	-0.520	-1.204	0.2331
3.	Reactive:Proactive	2.80	3.04	2.67	-0.370	-0.917	0.3625
4.	Individual Oriented:Group Oriented	4.28	4.17	4.33	0.160	0.373	0.7107
5.	Aggressive:Accommodating	4.21	3.96	4.36	0.400	0.996	0.3232
6.	Reserved:Friendly	4.30	4.13	4.40	0.270	0.609	0.5444

Note. N for Group A = 24; Group B = 42.

Leadership

57 participants provided feedback within the leadership antecedent using six factors on a seven-point Likert scale. When asked whether FORCECOM leadership continually looks for opportunities for employees to learn for his/her professional development, 42% of participants agreed and 28% disagreed. Seventy-two percent of participants agreed that FORCECOM strongly supports requests for training and development whereas 9% disagreed. Fifty-eight

percent of participants agreed that FORCECOM empowers others with carrying out its vision and 21% disagreed.

Thirty-five percent of participants agreed that FORCECOM mentors those he/she leads while 33% disagreed. When asked whether FORCECOM often ensures the organization's actions are consistent with its values, 63% of participants agreed and 21% disagreed. The last factor asked participants whether they agreed that FORCECOM shares up-to-date information with its employees about the organization's directions. Forty-nine percent of participants agreed while 32% disagreed.

Table 20 highlights that six of the six factors showed no statistically significant differences of perspective. The factors that had larger mean differences were (1) whether FORCECOM continually looks for opportunities to learn for his/her professional development and (2) whether FORCECOM empowers others to help carry out the organization's vision. Both factors suggest trends worth further investigation between the comparison groups.

Table 20

Leadership Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	FORCECOM continually looks for opportunities to learn for his/her professional development.	4.32	4.82	4.00	-0.820	-1.989	0.0517
2.	FORCECOM generally supports requests for training and development opportunities.	5.00	5.14	4.91	-0.230	-0.677	0.5014
3.	FORCECOM usually empowers others to help carry out the organization's vision.	4.47	4.95	4.17	-0.780	-1.659	0.0842
4.	FORCECOM mentors those he/she leads.	3.95	4.27	3.74	-0.530	-1.099	0.2764

5. FORCECOM often ensures that the organization's actions are consistent with its values.	4.56	4.91	4.34	-0.570	-1.255	0.2150
6. FORCECOM shares up-to-date information with employees about the FORCECOM's directions.	4.25	4.59	4.03	-0.560	-1.146	0.2568

Note. N for Group A = 22; Group B = 35.

The systems thinking discipline, combined with the competence, organizational culture, and leadership antecedents, have a total of 20 questions related to the overall discipline. Of the 20 questions, all factors resulted in no statistically significant difference between those performing HPT duties at the strategic/operational level from those performing duties at the operational/tactical level of the organizational hierarchy. The only factor related to the systems thinking discipline that suggest further investigation was whether FORCECOM continually looks for opportunities to learn for his/her professional development because the measured difference differences between the comparison groups calculated greater than .8 suggesting a larger mean difference between the two groups.

Research Question 2 (RQ2)

Are there differences in the perception of personal mastery between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization?

54 of the 69 participants willing to answer the discipline questions indicated they perceived no gap between their current position at FORCECOM and the position they would like to reach; 41% disagreed and 39% agreed. When asked whether they agreed that they had a personal goal of moving beyond their current position, 59% agreed while 28% disagreed. Sixty-one percent of respondents agreed that they had a clear idea of their personal future within

FORCECOM while 26% disagreed. When asked whether they are encouraged to explore the way things are being done at FORCECOM, 54% agreed and 39% disagreed. Seventy percent of participants agreed that they have a clear picture of their current position within FORCECOM and 19% disagreed.

Table 21 suggests that aside from one statement, there is no statistically significant difference of perspectives between Group A and Group B. Responses to the first question ("There is no gap between my current position at FORCECOM and the position I would like to reach.") resulted in a p-value of 0.0157, which suggests a statistically significant difference of perspectives between the two groups.

Table 21

Personal Mastery Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	There is no gap between my current position at FORCECOM and the position I would like to reach.	3.91	4.81	3.33	-1.480	-2.498	0.0157
2.	I have a personal goal of moving beyond my current position within FORCECOM.	4.81	4.95	4.73	-0.220	-0.355	0.7244
3.	I have a clear idea of my personal future as an employee within FORCECOM.	4.59	5.05	4.30	-0.750	-1.262	0.2124
4.	As an employee of FORCECOM, I am encouraged to explore the way things are being done.	4.20	4.57	3.97	-0.600	-1.040	0.3033
5.	I have a clear picture of my current position within FORCECOM.	5.15	5.38	5.00	-0.380	-0.683	0.4974

Note. N for Group A = 21; Group B = 33.

As mentioned earlier, similar to the systems thinking discipline, Bui and Baruch (2012) identified five antecedents—(1) personal vision, (2) personal values, (3) motivation, (4) individual learning, and (5) development and training—and 21 factors that directly contribute to the personal mastery discipline (Bui & Baruch, 2012). None of the antecedents are solely affiliated with personal mastery but also share a direct correlation with the shared vision or team learning disciplines as well. The calculations for the personal mastery, personal values, and motivation antecedents apply to the shared vision discipline and address research question three. Individual learning and development and training calculations apply to the team learning discipline and therefore address research question five.

Personal Vision

When asked about contributing factors to the personal vision antecedent, most participants agreed for all four factors. Eighty-nine percent of 56 participants agreed they set up their own career goals, and only 5% of participants disagreed that this is the case. Ninety-four percent of participants felt they have personal vision for their career (factor 2), and 91% agreed that making FORCECOM more successful is part of that vision (factor three). No participants disagreed with either of these factors. When asked whether participants understand how their work contributes to achieving FORCECOM's vision, 89% felt that it does, while 11% of participants disagreed with this statement. The data in Table 22 suggest that there is no statistically significant difference of perspectives present between Group A and Group B.

Table 22

Personal Vision Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I set up career goals of my own.	6.20	6.36	6.09	-0.270	-0.845	0.4021
2.	I have my personal vision for my career.	6.29	6.41	6.21	-0.200	-0.837	0.4064
3.	Part of my personal vision is to make FORCECOM more successful.	6.14	6.23	6.09	-0.140	-0.508	0.6136
4.	I understand how the work I do helps FORCECOM achieve its vision.	5.84	6.14	5.65	-0.490	-1.136	0.2608

Note. N for Group A = 22; Group B = 34.

Personal Values

Participants gauged the importance of personal values using a seven-point Likert scale; unimportant (1) to very important (7). Eighty percent of participants perceived warm relationships with others as important, while 7% found this factor to be unimportant. A majority of respondents found importance in security (93%), self-fulfillment (98%), self-respect (98%), and sense of accomplishment (98%); no participants answered unimportant for any of these factors. The data in Table 23 suggests no statistically significant difference related to a sense of accomplishment between Group A and Group B.

Table 23

Personal Values Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	Warm relationships with others	5.64	5.95	5.44	-0.510	-1.369	0.1767
2.	Security	6.14	6.14	6.15	0.010	0.040	0.9682

3.	Self-fulfillment	6.41	6.27	6.50	0.230	1.038	0.3040
4.	Self-respect	6.48	6.32	6.59	0.270	1.328	0.1899
5.	Sense of accomplishment	6.63	6.45	6.74	0.290	1.771	0.0822

Note. N for Group A = 22; Group B = 34.

Motivation

Four factor questions gauged participants' feelings about the motivation antecedent. Seventy-five percent of participants do not mind taking extra duties and responsibilities in their work, yet 9% of participants disagreed with that statement. Most employees (96%) felt, to some level, that they work hard to try to do a good job, and 2% felt that they do not. When asked whether they look forward to coming to work, 63% agreed, while 27% of participants disagreed. Ninety-one percent of respondents felt personally involved in their work and 7% do not. The data in Table 24 suggests no statistically significant difference of perspectives between Group A and Group B.

Table 24

Motivation Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I don't mind taking on extra duties and responsibilities in my work with FORCECOM.	5.54	5.41	5.62	0.210	0.554	0.5820
2.	I work hard and try to do as good a job as possible.	6.56	6.77	6.42	-0.350	-1.423	0.1605
3.	I look forward to coming to work.	4.64	4.86	4.50	-0.360	-0.671	0.5052
4.	I am very personally involved in my work.	6.11	6.36	5.94	-0.420	-0.874	0.3858

Note. N for Group A = 22; Group B = 34.

Individual Learning

When asked whether their own learning and development at work was essential to them, a near unanimous 96% of participants agreed, with no participants disagreeing. Fifty-seven percent of participants agreed they like being on a steep learning curve at work, while 26% disagreed with this statement. Ninety-five percent of participants agreed that they prefer activities that provided them an opportunity to learn something new and 98% agreed to being committed to life-long learning; 2% of participants disagreed with both factors. Table 25 highlights that three of the four factors showed no statistically significant difference between the two groups; the exception was whether participants like being on a steep learning curve at work. This factor calculated a p-value less than 0.05 at 0.0005, suggesting there is a statistically significant difference between the two groups.

Table 25

Individual Learning Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	My own learning and development at work are essential to me.	6.20	6.32	6.12	-0.200	-0.8400	0.4045
2.	I like being on a steep learning curve at work.	4.63	3.77	5.18	1.410	3.707	0.0005
3.	I prefer activities that provides me the opportunity to learn something new.	5.98	5.77	6.12	0.350	1.339	0.1863
4.	I am committed to life-long learning.	6.32	6.09	6.47	0.380	1.633	0.1083

Note. N for Group A = 22; Group B = 34.

Development and Training

The results for the development and training antecedent were balanced on either side of the spectrum. Fifty-four percent of 56 participants agreed that FORCECOM encourages staff to develop team-working skills while 38% disagreed. When asked whether FORCECOM encourages staff to identify skills needed to adapt to changes, 41% of participants agreed and 45% disagreed. Forty-three percent of participants agreed that they were mentored when they first took the job but 50% stated otherwise. Forty-six percent felt that they had received the training needed to perform their current job effectively, and 38% did not. The data in Table 26 suggests no statistically significant difference of perspectives found between the two groups for any of the four factors; however, the last factor had larger mean differences suggesting a trend worth further investigation.

Table 26

Development and Training Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	FORCECOM encourages this staff to develop team-working skills.	4.23	4.41	4.12	-0.290	-0.518	0.6068
2.	FORCECOM encourages this staff to identify skills they need to adapt to changes.	3.89	3.91	3.88	-0.030	-0.055	0.9565
3.	I was mentored when I first took up the job here.	3.73	3.86	3.65	-0.210	-0.312	0.7560
4.	I receive the training I need to perform my current job effectively.	4.20	4.73	3.85	-0.880	-1.615	0.1122

Note. N for Group A = 22; Group B = 34.

A total of 26 questions factor into the personal mastery discipline when combined with the personal vision, personal values, motivation, individual learning, and development and training antecedents. Responses to 24 of the 26 questions resulted in no statistically significant difference between those performing HPT duties at the strategic/operational level from members within the operational/tactical level of the organizational hierarchy.

Two factors related to the personal mastery discipline suggest a statistically significant difference of perceptions. The first factor resided within the actual discipline questions and suggest a difference of perspectives regarding gaps between current staff positions at FORCECOM and positions that members would like to reach to achieve upward mobility. The other was related to a difference of opinions related to learning curves at work (individual learning). Though members who perceive to receive the training needed to perform their current job effectively (development and training) factor showed no statistically significant differences of perspective, results found a larger mean differences which suggests trends worth further investigation between the comparison groups.

Research Question 3 (RQ3)

Is there a difference in the perceptions of mental models between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization?

Of the 54 (of 69 total) participants that answered the disciplinary questions, 52% of those who participated agreed that FORCECOM encourages its staff to work in a systematic way while 35% disagreed. Similar percentages resulted when participants were asked whether FORCECOM treats its staff fairly: 53% in agreed and 32% disagreed. When asked whether

FORCECOM provides necessary skills for professional development, 48% agreed, while 26% disagreed. Fifty percent of participants perceived that FORCECOM provides opportunities for professional development while 31% did not. Thirty-seven percent of participants felt FORCECOM does not have an appropriate mechanism to bring staff together to develop the best ways of problems solve; a nearly equal 35% countered the opinions and felt that FORCECOM has the appropriate mechanisms. The data in Table 27 shows that four of the five factors showed no statistically significant difference between the two comparison groups. There was a statistically significant difference regarding participants' perceptions of whether FORCECOM provides opportunities for professional development; the p-value calculated at 0.03. The factor related to FORCECOM providing necessary skills for professional development calculated a larger mean difference of .8, suggesting trends worth further investigation between the groups.

Table 27

Mental Models Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	FORCECOM encourages its staff to work in a systematic way.	4.30	4.62	4.09	-0.530	-1.018	0.3132
2.	FORCECOM treats its staff fairly.	4.23	4.48	4.06	-0.420	-0.768	0.4458
3.	FORCECOM provides necessary skills for professional development.	4.30	4.81	3.97	-0.840	-1.804	0.0771
4.	FORCECOM provides opportunities for professional development.	4.28	4.90	3.88	-1.020	-2.142	0.0369
5.	FORCECOM has an appropriate mechanism to bring staff together to develop the best ways of problem solving.	3.78	4.05	3.61	-0.440	-0.888	0.3787

Note. N for Group A = 21; Group B = 33.

In addition to the five specific questions, Bui and Baruch (2012) identified 16 factors within the (1) organizational culture, (2) leadership, and (3) organizational commitment antecedents that directly affect the mental model's discipline. Organizational commitment is the only antecedent of the three that does not correlate any other disciplines (Bui & Baruch, 2012).

Organizational Commitment

With regards to the antecedent of organizational commitment, 61% of participants agreed that they would be very happy to spend the rest of their career with FORCECOM while 27% disagreed. Sixty-one percent also agreed they enjoy discussing FORCECOM with people outside it and 25% do not. Thirty percent agreed that they feel like FORCECOM's problems are their own while 34% disagreed. When participants were asked whether FORCECOM has a great deal of personal meaning to them, 48% agreed and 36% disagreed. No statistically significant difference was found within the organizational commitment antecedent.

Table 28

Organizational Commitment Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I would be very happy to spend the rest of my career with FORCECOM.	4.61	4.64	4.59	-0.050	-0.087	0.9313
2.	I enjoy discussing FORCECOM with people outside it.	4.59	5.00	4.32	-0.680	-1.345	0.1844
3.	I really feel as if FORCECOM's problems are my own.	3.71	4.00	3.53	-0.470	-0.856	0.3960
4.	FORCECOM has a great deal of personal meaning to me.	4.23	4.45	4.09	-0.360	-0.676	0.5017

Note. N for Group A = 22; Group B = 34.

Table 19, which illustrates the organizational culture results, had a total of six factors with 66 participants responding using a seven-point Likert scale. Responses to all six factors did not indicate any statistically significant difference of perspectives between Group A and Group B.

All six leadership antecedent factors (see Table 20) showed no statistically significant difference between the two comparison groups. Larger mean differences were, however, found after calculating responses to whether FORCECOM continually looks for opportunities to learn for his/her professional development, and whether FORCECOM empowers others to help carry out the organization's vision. Both factors suggest trends worth further investigation between the comparison groups.

Responses for 20 of the 21 factors within the combined antecedents and discipline displayed no statistically significant difference between Group A and Group B. The only factor related to the mental models discipline (whether FORCECOM provides the necessary opportunities for professional development) suggested a statistically significant difference in perceptions. Though only one factor found a significant difference, two factors related to FORCECOM providing necessary skills for professional development and one factor within the leadership antecedent regarding FORCECOM's ability to continually seek opportunities to learn for the sake of employee development found trends with larger mean differences worth further investigation.

Research Question 4 (RQ4)

Is there a difference in the perceptions of shared vision between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization?

Participants were provided specific questions directly correlated to shared vision within the discipline portion of the evaluation instrument and were asked to rate their perception of each statement on a seven-point Likert scale. Of the 54 participants who were willing to contribute feedback, the first question resulted in 33% disagreement and 44% agreement when asked whether participants understood FORCECOM's vision. When participants were asked whether they understood how to achieve FORCECOM's visions, 35% disagreed with this factor and 33% agreed. The third factor inquired whether FORCECOM's mission statement identifies values to which employees are expected to conform, in which 61% of participants agreed and 19% disagreed. Fifty-six percent of participants agreed that they perceived to be an important part of FORCECOM's vision while 26% were opposed to the factor. The final factor asked members whether they overall accept and support FORCECOM's mission, to which 80% of participants agreed and 9% disagreed.

The data in Table 29 suggests no statistically significant difference of perspectives Group A and Group B.

Table 29

Shared Vision Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I understand FORCECOM's vision.	4.24	4.52	4.06	-0.460	-0.852	0.3979
2.	I understand how FORCECOM's mission is to be achieved.	4.15	4.48	3.94	-0.540	-0.996	0.3240
3.	FORCECOM's mission statement identifies values to which I, as an employee, am expected to conform.	5.02	5.00	5.03	0.030	0.057	0.9544
4.	I am an important part of FORCECOM's vision.	4.61	4.90	4.42	-0.480	-0.841	0.4042
5.	Overall, I accept and support FORCECOM's mission.	5.57	5.43	5.67	0.240	0.558	0.5795

Note. N for Group A = 21; Group B = 33.

Bui and Baruch (2012) identified five antecedents— (1) organizational culture, (2) leadership, (3) personal vision, (4) personal values, and (5) motivation—consisting of 25 questions that directly contribute to the shared vision discipline (Bui & Baruch, 2012). None of these antecedents are solely affiliated with shared vision but have direct correlations with other disciplines. The calculations for the organizational culture and leadership antecedents were used to identify perceptions of the systems thinking, mental model, and team learning disciplines, while the personal vision, personal values, and motivation antecedents' calculations were applied to personal mastery discipline. Of the five antecedents, only the related to leadership responses had factors that trended larger mean differences; they concern FORCECOM's ability to continually seek opportunities to learn and empower others, and the personal values antecedent responses that illustrated a larger mean difference in the sense of accomplishment factor.

Governing Variables

Argyris and Schön's (1978) single- and double-learning loop model suggests firms become learning organizations when lessons learned are captured by the governing variables that dictate the firms' actions. During correspondence related to this study, Bui provided five questions related to communication that were not incorporated into Bui and Baruch's model. Bui stated, "I designed communication as a moderator of TL [team learning] and SV [shared vision], but it didn't seem to work in my data. I'm curious to see what it will get in your data." (Bui, 2022). The communication questions were repurposed in this study to focus on four major topic areas related to FORCECOM's governing variables for directing and managing workforce strategy and performance.

Strategy Plans

When asked to indicate how they would describe FORCECOM strategic plans using a seven-point Likert scale against five different factors, 32% of the 54 respondents perceived the FORCECOM strategic plans as untimely and 38% perceived it as timely. Twenty-one percent felt FORCECOM strategy plans are inaccurate, whereas approximately 48% believed they are accurate. Twenty-five percent perceived FORCECOM strategy plans as inadequate compared to the 49% who felt the plans are adequate. Twenty-seven percent felt strategy plans are incomplete, whereas 46% suggested plans are generally complete. When asked whether the strategy plans are not credible, 21% agreed whereas 56% replied that plans are credible. No statistically significant difference in perspectives were found between Group A and Group B.

Table 30

Strategy Plans Comparative Results

	Factor	x̄	Group x̄		MD	T-Score	P-Value
			A	B			
1.	Untimely:Timely	4.04	3.95	4.09	0.140	0.297	0.7679
2.	Inaccurate:Accurate	4.35	4.40	4.31	-0.090	-0.206	0.8377
3.	Inadequate:Adequate	4.29	4.25	4.32	0.070	0.154	0.8779
4.	Incomplete:Complete	4.25	4.30	4.22	-0.080	-0.166	0.8688
5.	Not Credible:Credible	4.60	4.50	4.66	0.160	0.354	0.7245

Note. N for Group A = 22; Group B = 32.

Commandant Instructions

Similar to strategy plans, a trending 32% perceived FORCECOM's commandant instructions as untimely, whereas 42% felt they are timely. Thirteen percent of participants felt commandant instructions are inaccurate and 56% perceived them as accurate. Twenty-five percent of 52 participants felt FORCECOM's commandant instructions are inadequate, while 48% perceived them as adequate. Regarding the completeness of the instructions, 21% perceived the commandant instructions as incomplete, whereas 41% felt they are complete. Thirteen percent of participants felt FORCECOM's commandant instructions are not credible, while 52% perceived them as credible. Table 31 shows that there were no statistically significant differences in perspectives between Group A and Group B.

Table 31

Commandant Instructions Comparative Results

	Factor	x̄	Group x̄		MD	T-Score	P-Value
			A	B			
1.	Untimely:Timely	4.13	4.15	4.12	-0.030	-0.060	0.9536
2.	Inaccurate:Accurate	4.65	4.70	4.63	-0.070	-0.165	0.8696
3.	Inadequate:Adequate	4.33	4.25	4.38	0.130	0.289	0.7739
4.	Incomplete:Complete	4.31	4.25	4.34	0.090	0.196	0.8456
5.	Not Credible:Credible	4.63	4.35	4.81	0.460	1.047	0.3002

Note. N for Group A = 20; Group B = 32.

FORCECOM Instructions

With regards to governing variables that directly affect FORCECOM personnel, 35% of 53 participants perceived FORCECOM instructions as untimely and 43% felt they are timely. Twenty-five percent believed FORCECOM instructions are inaccurate, whereas 49 believe they are accurate. With regards to adequacy, 32% perceived the instructions to be inadequate, while 45% felt that FORCECOM instructions are adequate. Thirty percent of participants expressed agreement that FORCECOM instructions are incomplete, and 45% found the instructions to be complete. When inquired to FORCECOM instruction's level of credibility, 21% answered not credible, while 51% felt they are credible. Like the previous governing variables, no statistically significant differences between Group A and Group B were found (see Table 32).

Table 32

FORCECOM Instructions Comparative Results

	Factor	x̄	Group x̄		MD	T-Score	P-Value
			A	B			
1.	Untimely:Timely	3.91	4.00	3.85	-0.150	-0.312	0.7561
2.	Inaccurate:Accurate	4.21	4.33	4.13	-0.200	-0.432	0.6672
3.	Inadequate:Adequate	4.11	4.24	4.03	-0.210	-0.411	0.6830
4.	Incomplete:Complete	4.09	4.19	4.03	-0.160	-0.323	0.7477
5.	Not Credible:Credible	4.40	4.48	4.34	-0.140	-0.288	0.7744

Note. N for Group A = 21; Group B = 32.

Standard Operating Procedures

The last governing variable factor was related to FORCECOM's SOPs. Forty-four percent of the 54 participants perceived SOPs as untimely, while 39% felt they are timely. Thirty-three percent felt that SOPs are inaccurate, and 44% perceived them as accurate. Thirty-nine percent perceived SOPs as inadequate, while 44% felt they are adequate. With regards to completeness of the SOPs, nearly 48% felt they are incomplete, while 40% believed they are complete. Seventeen percent of participants perceived FORCECOM SOPs as not credible, and 50% perceived them as credible. The data in Table 33 suggest two factors of timeliness and accuracy have trending larger mean differences worth further investigation between Group A and Group B.

Table 33

Standard Operating Procedures Comparative Results

	Factor	x̄	Group x̄		MD	T-Score	P-Value
			A	B			
1.	Untimely:Timely	3.80	4.38	3.42	-0.960	-1.758	0.0847
2.	Inaccurate:Accurate	4.11	4.52	3.55	-0.970	-1.809	0.0762
3.	Inadequate:Adequate	3.98	4.38	3.73	-0.650	-1.125	0.2656
4.	Incomplete:Complete	3.78	4.14	3.55	-0.590	-1.157	0.2526
5.	Not Credible:Credible	4.28	4.43	4.18	-0.250	-0.466	0.6433

Note. N for Group A = 21; Group B = 33.

The five discipline questions, combined with the 25 antecedent questions that Bui and Baruch (2012) found to have a direct correlation, in conjunction with the 20 governing variable questions, established a total of 50 factors to address the shared vision discipline. Of the 50 factors, all 50 factors showed no statistically significant difference between Group A at the strategic/operational level of FORCECOM and Group B at the operational/tactical level. One factor within the leadership antecedent showed a larger mean difference worth further investigation. The factor was whether FORCECOM is able to continually seek opportunities to learn for the sake of employee development. In addition, p-values for both the factors of timeliness and accuracy related to Force Readiness Command's Standard Operating Procedures as governing variables showed a larger mean difference of perspectives between the comparison groups and worth further investigation.

Research Question 5 (RQ5)

Is there a difference in the perceptions of team learning between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization?

As previously highlighted, 54 of the 69 participants responded to the discipline-related questions. When asked whether they solve most problems with help from people from different departments, results showed that 30% of participants disagreed with this statement and 54% agreed. When asked whether their ideas are usually used within FORCECOM, 54% of participants agreed, while 27% disagreed. Twenty percent of participants disagreed with the statement that people on their team usually work well together, while 70% felt that their team members work well with each other. Question four asked participants whether they sometimes form informal groups on their own to solve problems within FORCECOM; 67% responded that they do, whereas 15% said that they do not. Fifty-seven percent of respondents agreed that they are encouraged to solve problems with their colleagues before discussing them with FORCECOM, leaving 19% to disagree with this statement.

Table 34 compares data results from Group A and Group B and suggests that there is no statistically significant difference of perspectives between the groups. Question two, however, had a trending mean difference larger than the other factors, suggesting further investigation related to the difference of perspectives between the two groups as it pertains to staff members' ideas being used within FORCECOM worth further investigation.

Table 34

Team Learning Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I solve most problems with help from people from different departments.	4.31	4.33	4.30	-0.030	-0.060	0.9528
2.	My ideas are usually used within FORCECOM.	4.41	5.00	4.03	-0.970	-1.807	0.0766
3.	People on my team usually work well together.	5.00	5.14	4.91	-0.230	-0.438	0.6635
4.	We sometimes form informal groups on our own to solve problems within FORCECOM.	5.06	5.00	5.09	0.090	0.203	0.8401
5.	I am encouraged to solve problems with my colleagues before discussing them with FORCECOM.	4.81	5.00	4.70	-0.300	-0.619	0.5389

Note. N for Group A = 21; Group B = 33.

Bui and Baruch (2012) identified six antecedents that are directly correlated to team learning: (1) organizational culture, (2) leadership, (3) individual learning, (4) development and training, (5) goal setting, and (6) team commitment (Bui & Baruch, 2012). Goal setting and team commitment are the only two antecedents solely affiliated with the team learning antecedent; the other four were used to calculate perceptions with the other disciplines as well. Similar to the shared vision discipline, Bui (2022) noted the initial purpose of the communication questions were used as a moderator for the team-learning discipline, but were not used to support Bui and Baruch's contributions (Bui, 2022). This study's survey questions were modified to support this particular study and contribute to an overall 36 factors to measure the FORCECOM workforce's perspectives regarding fostering a learning organization.

Goal Setting

Of the 56 participants who contributed to the three specific questions related to goal setting, 63% agreed that their team sets clear goals before starting any project, and 23% disagreed. Sixty-three percent of participants also agreed team members are encouraged to participate in the process of goal setting, while 25% disagreed. When asked whether goals assigned to the participant's team members are equitable, approximately 50% agreed while 36% of participants disagreed. The data in Table 35 suggests no statistically significant difference between Group A and Group B.

Table 35

Goal Setting Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	My team set clear goals before we really start any project.	4.75	4.86	4.68	-0.180	-0.335	0.7390
2.	Team members are encouraged to participate in the process of goal setting.	4.79	5.14	4.56	-0.580	-1.034	0.3058
3.	The goals assigned to our team members are equitable.	4.21	4.41	4.09	-0.320	-0.555	0.5812

Note. N for Group A = 22; Group B = 34.

Team Commitment

The final antecedent-related factors evaluated participants' perceptions regarding team commitment based on four factors. The first factor was whether participants feel at home among their colleagues. Sixty-seven percent of participants responded that they do feel at home, while 27% do not. Ninety-six percent agreed with the statement that they try to invest effort into a good atmosphere in their team; in contrast, a small 4% disagreed. When participants were asked whether they let themselves be guided by the goals of their team, 82% agreed and 9% disagreed. The final factor asked whether participants agreed or disagreed with the statement that they are involved in social activity with their team. Sixty-nine percent of those who answered agreed while 18% disagreed. Like the goal-setting antecedent results, the data in Table 36 suggests no statistically significant difference between the two comparison groups. Question one had a trending mean difference larger than the other factors, suggesting further investigation related to the difference of perspectives between the two groups feeling at home among their colleagues at work.

Table 36

Team Commitment Antecedent Comparative Results

	Factor	$\bar{x}$	Group $\bar{x}$		MD	T-Score	P-Value
			A	B			
1.	I feel at home among my colleagues at work.	4.76	5.27	4.42	-0.850	-1.575	0.1212
2.	I try to invest effort into a good atmosphere in my team.	6.24	6.27	6.21	-0.060	-0.181	0.8754
3.	In my work, I let myself be guided by the goals of my team.	5.53	5.36	5.64	0.280	0.690	0.4909

4. When there is social activity with my team, I usually get involved.	4.91	5.14	4.76	-0.380	-0.745	0.4593

Note. N for Group A = 22; Group B = 33.

In addition to the five discipline questions, the 27 antecedent questions Bui and Baruch (2012) found to have a direct correlation with the team-learning discipline, in conjunction with the 20 governing variable questions, established a total of 52 factors. Of the 52 factors, 51 factors calculated to have no statistically significant difference between Group A at the strategic/operational level of the organization by contrast with that of Group B at the operational/tactical level of the hierarchy.

The only factor with a calculated P-value less than 0.05 was within the individual learning antecedent related to whether participants like being on a steep learning curve at work. In addition, three factors that had larger mean differences were related to the leadership and one factor within the discipline questions of team learning that asked whether staff members' ideas are usually used within FORCECOM. As mentioned in previous discipline sections, the leadership antecedent suggested participants' opinions differ regarding FORCECOM's ability to continually seek opportunities to learn for the sake of employee development, and whether FORCECOM empowers others to help carry out the organization's vision.

Of the governing variable questions, both factors relating to the timeliness and accuracy of FORCECOM's standard operating procedures demonstrate larger mean differences of perspectives with suggested trends worth further investigation.

Chapter Five: Discussion and Conclusions

The purpose of this study was to evaluate FORCECOM's ability to utilize HPT to foster a learning organization with a focus on the workforce, whose primary responsibilities rely on utilizing and/or supporting HPT implementation to achieve the organization's mission. The study sought to capture perspectives from FORCECOM's workforce related to various factors within employee's career, performance, and work attitudes that aligned within the framework of Senge's (1990) *The Fifth Discipline* to evaluate the fostering of a learning organization (Senge, 1990).

Specifically, this study sought to determine whether there is a difference in the perceptions of (RQ1) systems thinking, (RQ2) personal mastery, (RQ3) mental model, (RQ4) shared vision, and (RQ5) team learning between those performing duties within the strategic/operational level of the organization hierarchy from those performing duties within the operational/tactical level of the organization. Bui and Baruch's (2012) research and evaluation tool was implemented, with some FORCECOM-specific modifications made to support a descriptive analysis (Bui & Baruch, 2012).

Findings

The learning organization survey was issued to 206 of 240 identified positions within FORCECOM, providing an 85% opportunity for employees who perform HPT practices to contribute feedback. 69 participants began providing feedback, but only 54 participants fully completed the survey; this captured the perspectives of 22% to 28% of the total population. Table 37 summarizes the previous chapter's survey data and illustrates the five research questions; totals are based on the collective discipline questions and contributing antecedents that factored into the study. Each research question seeking perspectives on systems thinking (RQ1),

personal mastery (RQ2), and mental models (RQ3) disciplines had a total of 20 to 26 factors that resulted in fewer than four factors having a statistically significant difference of perspectives between the comparison groups. Both the shared vision (RQ4) and team learning (RQ5) questions had a larger number of factors that contributed to their results; this is due to the addition of 20 governing variables questions that were modified from Bui and Baruch's (2012) original communications antecedent (Bui & Baruch, 2012). Bui (2022) noted the communication questions were used as a moderator but were not used to support Bui and Baruch's contributions. This assertion was validated by this study's results, showing little to no impact on the findings (Bui, 2022).

Table 37

Research Question Results

	Research Question	Total # of Factors	Factors w/ Statistically Significant Difference	% with Significant Difference
RQ1.	Is there a difference in the perceptions of *Systems Thinking* between groups?	20	0	0%
RQ2.	Is there a difference in the perceptions of *Personal Mastery* between groups?	26	2	7%
RQ3.	Is there a difference in the perceptions of *Mental Models* between groups?	21	1	4%
RQ4.	Is there a difference in the perceptions of *Shared Vision* between groups?	50	0	0%
	RQ4 without governing variable antecedent	30	0	0%
RQ5.	Is there a difference in the perceptions of *Team Learning* between groups?	52	1	1%
	RQ5 without governing variable antecedent	32	1	3%

Overall, the results of the evaluation showed minimal differences in perceptions between those performing duties within the strategic/operational level of the organization hierarchy and those performing duties within the operational/tactical level. However, results do suggest that FORCECOM has several areas where opinions differ.

Systems Thinking

The collective results outlined in Table 38 found only one of the five factors within the systems thinking discipline questions resulted with a high response value (whether employees agreed that their job impacts FORCECOM). Senge (1990) suggested that there is no way to achieve the perfect learning organization, and continuous improvement of practice is a way of life (Senge, 1990). Although 76% felt that their job impacts the overall organization, when Senge's philosophy is applied to this factor's finding, data suggests that FORCECOM could use this baseline value to evaluate avenues for the firm's improvement.

Table 38

Collective Results for Systems Thinking Discipline

	Factor	% Disagree	% Neutral	% Agree
1.	When there is a problem in my department, we also seek help to handle the problem from other units of FORCECOM.	41%	18%	41%
2.	I believe that my job has an impact on the whole FORCECOM.	17%	7%	76%
3.	I have the power to change things within FORCECOM.	37%	19%	44%
4.	FORCECOM encourages staff to see themselves as interrelated parts with the others.	35%	17%	48%
5.	FORCECOM encourages team learning and working.	33%	15%	52%

The remaining four factors resulted in response values that suggest a greater difference of opinions throughout FORCECOM. Results from the first factor found an equal percentage of participants agreeing and disagreeing that they seek help to handle problems from other FORCECOM units. With 41% of participants in disagreement, this finding could indicate that performance is conducted in stovepipes, and lessons learned are not shared across the FORCECOM enterprise. This ultimately affects the team learning discipline and alludes to efforts operating on a single loop (Argyris & Schön, 1978). Factors three through five resulted in responses of approximately 35% disagreement from respondents about whether they feel powerless to change things, are encouraged to see themselves as integral parts, and are encouraged to work and learn as a team within FORCECOM.

Bui and Baruch (2012) suggested specific antecedents have contributing factors to the overarching systems thinking discipline, specifically competence, organizational culture, and leadership (Bui & Baruch, 2012). Findings suggest most of the population perceive themselves to possess a high-level of confidence, self-assurance, and a level of mastery related to the skills necessary to perform their duties within FORCECOM (Table 39).

Table 39

Collective Results of Competence Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	I am confident about my ability to do my job.	3%	6%	91%
2.	I am self-assured about my capacity to perform my work activities.	3%	4%	93%
3.	I have mastered the skills necessary for my job.	7%	5%	88%

As standalone factors, the competence-related results suggest that FORCECOM has established the optimal process to ensure its members obtain the knowledge, skills, and attitudes for success, or that everyone is simply self-confident. To truly validate FORCECOM's employees' level of competence with their perspectives, position-specific Level-2 evaluations would be necessary (Kirkpatrick & Kirkpatrick, 2006). However, the values captured within these factors can highlight concerns to contributing results of other antecedents and disciplines.

Table 40 highlights various competing perspectives regarding FORCECOM's organizational culture. The findings could be interpreted as positive or negative, depending on the desired outcomes established by FORCECOM's senior leadership.

Table 40

Collective Results of Organizational Culture Antecedent

	Factor	% Left	% Neutral	% Right
1.	Stable:Dynamic	14%	28%	58%
2.	Closed/Bureaucratic:Open/Interactive	46%	27%	27%
3.	Reactive:Proactive	69%	17%	14%
4.	Individual Oriented:Group Oriented	24%	31%	45%
5.	Aggressive:Accommodating	23%	35%	42%
6.	Reserved:Friendly	31%	24%	45%

FORCECOM did not specify desired outcomes prior to the evaluation tool being distributed. Consequently, the study's factors cannot be validated on one side of the spectrum from the other regarding each factor's desired results. At best, one can assume that some balance of opinions between the factors is the desired state of what constitutes a learning organization.

Of the factors evaluated, the one that illustrates the largest divide between perceptions is whether FORCECOM's culture is closed/bureaucratic or open/interactive. Edmondson and Moingeon (1998) stated the learning organization adapts practices from learned behavior to ultimately transform the firm (Edmondson & Moingeon, 1998). Forty-six percent of survey respondents perceived the organization as closed and/or bureaucratic, and 27% were neutral. If the desired state to achieve a learning organization aligns with scholarship, this factor would suggest the need shift opinions towards the perception that FORCECOM is open and/or interactive in its process (Argyris & Schön, 1978; Easterby-Smith & Lyles, 2011).

The last antecedent, and the most contributing to the other disciplines, are six factors within leadership. Overall, the factors listed in Table 41 establish a baseline and do not indicate alarming results. The professional development, mentorship, and sharing up-to-date information factors indicate that they need the most attention for improvement.

Table 41

Collective Results of Leadership Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	FORCECOM continually looks for opportunities to learn for his/her professional development.	28%	30%	42%
2.	FORCECOM generally supports requests for training and development opportunities.	9%	19%	72%
3.	FORCECOM usually empowers others to help carry out the organization's vision.	21%	21%	58%
4.	FORCECOM mentors those he/she leads.	33%	32%	35%
5.	FORCECOM often ensures that the organization's actions are consistent with its values.	21%	16%	63%
6.	FORCECOM shares up-to-date information with employees about the FORCECOM's directions.	32%	19%	49%

Senge (1990) stated, “Systems thinking is a discipline for seeing wholes.” Bui and Baruch (2012) reaffirmed Senge’s theory, stating “Any attempt at creating a [learning organization] must start from systems thinking” (Bui & Baruch, 2012, p. 521; Senge, 1990, p. 68). Although the combined results were not part of the original research questions, the title of this research is to evaluate the U.S. Coast Guard’s use of Human Performance Technology to foster a learning organization, literature supports the collective evaluation. This study’s findings demonstrate that none of 20 factors show a significant difference of perspective between the two groups. When combining FORCECOM as a complete organizational entity, though, the data found several trends with competing perspectives related to systems thinking.

With a large quantity of factors that portray difference of opinions in both systems thinking and the organizational culture and leadership antecedents, the only factors that were largely agreed upon were respondents’ perspectives regarding their own individual competence. Such a workforce, especially one in the HPT field, suggest that FORCECOM would have higher scores of agreements within the factors of systems thinking.

Personal Mastery

The findings between the comparison groups related to the personal mastery discipline found a significant difference for the factor of position gaps between employee’s current position at FORCECOM (see Table 21). The mean for Group B was much lower, indicating Group B, on average, agreed with the idea that there was no gap between current positions and what the respondents would like to reach. FORCECOM’s collective results also suggested that most participants perceived a gap within positions of the organization (see Table 42).

Table 42

Collective Results for Personal Mastery Discipline

	Factor	% Disagree	% Neutral	% Agree
1.	There is no gap between my current position at FORCECOM and the position I would like to reach.	41%	20%	39%
2.	I have a personal goal of moving beyond my current position within FORCECOM.	28%	13%	59%
3.	I have a clear idea of my personal future as an employee within FORCECOM.	26%	13%	61%
4.	As an employee of FORCECOM, I am encouraged to explore the way things are being done.	39%	7%	54%
5.	I have a clear picture of my current position within FORCECOM.	19%	11%	70%

This factor suggests that employees operating between the operational/macro and tactical/micro level might perceive themselves as needing to advance more than those performing duties at the higher level of the organization, who might perceive themselves "at the top." One could also assume that a breakdown exists in communication and leadership between levels related to organization requirements and/or the processes necessary to obtain additional positions. This hypothesis is supported by the results from the fourth factor, which found 39% of total respondents disagree that FORCECOM encourages its employees to explore the way things are being conducted. This finding could be a result of the USCG/military culture of receiving orders from leadership, where subordinates perform their duties without question. Of the remaining three factors in Table 42, while none show concerning results, they do provide a baseline for future improvement considerations.

Personal vision, along with personal values, motivation, individual learning, and development and training is an antecedent to the personal mastery discipline. Findings from the comparison groups (Table 22) indicate no differences of opinions, and that most participants agree that they have career goals of their own, visions for their career, and envision contributing to FORCECOM's success (Table 43).

Table 43

Collective Results for Personal Vision Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	I set up career goals of my own.	6%	5%	89%
2.	I have my personal vision for my career.	0%	5%	95%
3.	Part of my personal vision is to make FORCECOM more successful.	0%	9%	91%
4.	I understand how the work I do helps FORCECOM achieve its vision.	11%	0%	89%

Bui and Baruch (2012) emphasized that "personal vision is the groundwork" for the personal mastery discipline. Although not a large percentage, 11% of participants did not see alignment of their work with FORCECOM's vision (Bui & Baruch, 2012, p. 518). Similar assumptions regarding communication and leadership breakdown could explain these results, and this factor could correlate with previously noted concerns in systems thinking, such as achieving a mastery of skills related to the competence antecedent.

The personal values antecedent comparison-group findings identified the sense of accomplishment factor to trend a larger mean difference (Table 23). The means value suggests those performing duties at the tactical level possess a greater sense of accomplishment than those

at the higher level of the organizational hierarchy. It is possible that those performing duties at the lower levels see the value from deliverables they develop for their customers, whereas those higher in the hierarchy—whose focus is strategy, policy, and procedures—do not have the same sense of return on investment. The responses for most of the factors shown in Table 44 indicate a majority agreement, although 7% do not have warm relationships with others.

Table 44

Collective Results for Personal Values Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	Warm relationships with others	7%	13%	80%
2.	Security	0%	7%	93%
3.	Self-fulfillment	0%	2%	98%
4.	Self-respect	0%	2%	98%
5.	Sense of accomplishment	0%	2%	98%

High percentages of perceived competence identified in the systems thinking discipline could result in a competitive environment for those seeking limited positions beyond their current roles which could be a potential result for the 7% of disagreement with this factor. Another possibility resulting from these high levels of perceived competence is that members who have worked in FORCECOM for a long time are conflicted when receiving direction from leadership who have a false sense of personal mastery, such as military members who are new the organization.

The results for the motivation antecedent listed in Table 24 indicate no statistically significant difference in the perceptions between Groups A and B. However, when combining

Group A and Group B's perspectives (Table 45), the results show that nearly one-third of employees do not look forward to coming to work which highlight a striking finding that should be taken into consideration.

Table 45

Collective Results for Motivation Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	I don't mind taking on extra duties and responsibilities in my work with FORCECOM.	9%	16%	75%
2.	I work hard and try to do as good a job as possible.	2%	2%	96%
3.	I look forward to coming to work.	27%	11%	62%
4.	I am very personally involved in my work.	7%	2%	91%

Several contributing factors could cause such a large percentage of personnel to not look forward to coming to work. Possible factors include: the presence of the 7% of respondents who do not have warm relationships with others, the 11% who do not see alignment of their efforts with FORCECOM's vision, or the 41% who feel there is a lack of upward mobility. The fact that most of the factors within the systems thinking discipline with a large population of disagreement, such as having the power to change things within FORCECOM, seeing themselves as interrelated parts with the others, and encouragement for team learning and working could also be contributing factors to the lack of motivation to come to work. Although these factors could contribute to a large portion of FORCECOM's employees lacking the motivation to come to work, it is impossible to state with certainty the root cause is without specifics.

The findings of the individual learning antecedent show one of the four factors results in statistically significant difference perspectives between the comparison groups (Table 25). Specifically, participants performing duties at the lower level of the organizational hierarchy were more inclined to enjoy being on a steep learning curve at work than those performing duties at the higher level. When grouping the perspectives from both comparative groups into combined results, responses to this factor show the highest disparate opinions.

Table 46

Collective Results for Individual Learning Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	My own learning and development at work are essential to me.	0%	4%	96%
2.	I like being on a steep learning curve at work.	25%	18%	57%
3.	I prefer activities that provides me the opportunity to learn something new.	2%	4%	94%
4.	I am committed to life-long learning.	2%	0%	98%

Perhaps this finding is due to the executing HPT practices at the tactical level, whereas those at the strategic level focus on theoretical concepts applied to decision-making governance. the operational/tactical level sees continually changing technological and subject matter, both which have learning curves. Those at the strategic/operational level tend to be more immersed in updating and informing leadership of generalized policies and procedures.

The final antecedent that Bui and Baruch (2012) suggested as essential to the personal mastery discipline is development and training (Bui & Baruch, 2012). None of the four factors within this antecedent, highlighted in Table 26, found any difference of opinions between the

comparison groups. Table 47 illustrates a balanced difference of opinions within FORCECOM as a collective body across all four factors.

Table 47

Collective Results for Development and Training Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	FORCECOM encourages this staff to develop team-working skills.	38%	9%	53%
2.	FORCECOM encourages this staff to identify skills they need to adapt to changes.	45%	14%	41%
3.	I was mentored when I first took up the job here.	50%	7%	43%
4.	I receive the training I need to perform my current job effectively.	38%	16%	46%

Depending on FORCECOM's desired outcome, the results of these four factors could be perceived as either good or bad. For example, 38% of participants disagreed that FORCECOM encourages staff to develop team-working skills, and 48% perceived that FORCECOM does not encourage staff to identify skills they need to adapt to changes. An assumption could be made that FORCECOM empowers its members, and encouragement from the higher levels is considered micro-management. On the other hand, it could also be assumed that leadership and communication breakdowns lead employees to disagree with these factors.

Table 47 shows 50% of participants did not agree that they were mentored upon entry into their current positions, and 38% disagreed that they received the training necessary to perform their current duties. As previously mentioned in the competence antecedent section, the majority of the participants felt that they have mastered skills and rated themselves high in competence. Therefore, one could assume that FORCECOM hires employees to fulfill duties

based on their existing qualifications, and the provided governing variables are adequate to ensure the desired performance outcomes. With only 46% of total participants agreeing that FORCECOM provides ample training necessary to perform duties efficiently, these factors' findings counter the results that suggest most participants possess the master-level competence they perceive. On the contrary, perhaps participants' perspectives stem from non-HPT ancillary duties that they also perform (such as leadership, human resources, contracting and/or financial management).

Senge (1990) stated personal mastery "is an essential cornerstone of the learning organization." (Senge, 1990, p. 7). When the two FORCECOM groups were compared, the results showed only two factors with a difference in the perceptions of personal mastery. However, when results were combined, several factors related to the wants and needs for personal mastery illustrated competing perspectives. Specifically, factors of position gaps, exploration of the way things are executed, and all factors within development and training are areas of concern—even though most participants feel they already possess the knowledge, skills, and attitude necessary to perform their duties.

Mental Models

Senge (1990) suggested that mental models are "powerful in affecting what we do" (Senge, 1990, p. 175). Upon the establishment of FORCECOM, the Human Performance Cycle (HPC) was devised to aid its workforce in the strategic understanding of how its employees interact to accomplish the organization's mission. Since the HPC's creation, leadership has changed its own organization, which has dramatically changed the mental models they originally sought to achieve.

The evaluation tool from Bui and Baruch (2012) was leveraged for this study to determine a difference in the perceptions of mental models between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level of the organization. As separate organizational groups, the data listed in Table 27 show that those at the operational/tactical level have a less favorable opinion (on average) about whether FORCECOM provides opportunities for professional development. The means score of 3.88 suggests an overall disagreement with those at the strategic/operational level, whose data was just at the high end of neutral. The assumptions highlighted within the personal mastery discipline can also be applied to the mental models discipline, which seeks to integrate various factors into a cohesive working picture.

Like the results for the previously discussed disciplines, the results as a total participating sample, portray a larger disparity of opinions. Responses to the five factoring questions related to the mental models discipline present just over 50% agreement.

Table 48

Collective Results for Mental Models Discipline

	Factor	% Disagree	% Neutral	% Agree
1.	FORCECOM encourages its staff to work in a systematic way.	35%	13%	52%
2.	FORCECOM treats its staff fairly.	32%	15%	53%
3.	FORCECOM provides necessary skills for professional development.	26%	26%	48%
4.	FORCECOM provides opportunities for professional development.	31%	19%	50%
5.	FORCECOM has an appropriate mechanism to bring staff together to develop the best ways of problem solving.	37%	28%	35%

The first factor found that 52% of FORCECOM's participants perceive encouragement of its staff to work in a systematic way. With 35% in disagreement and 13% teetering on a neutral perspective, these results seem to show that FORCECOM does not actually conduct systematic thinking within its own organization, contradicting the initial notion that the organization is successful at practicing what it preaches.

The remaining four factors of the discipline questions highlight concerns that were initially brought up within the systems thinking and personal mastery disciplines. The collective results found perspective factors related to fair treatment, professional development, and problem-solving to be unbalanced. Bui and Baruch (2012) stated, "Leaders are responsible for learning and creating a learning environment for people to continually expand their ability to understand" (Bui & Baruch, 2012, p. 519). The results of from these four factors can have similar, if not the same, assumptions regarding communication and leadership breakdowns being a cause for the competing perspectives and less of an agreement across the organization.

The evaluation tool was also used to investigate employee perspectives on organizational culture, leadership, and organizational commitment antecedents. Previously highlighted within the systems thinking discipline section, the comparison groups' responses showed no significant difference of opinions within organizational culture. As a group, the results indicated that several differences of perspectives could be addressed depending on FORCECOM's desired outcome. These areas were related to stability, bureaucracy, individual or group orientation, reservedness, and accommodation.

The leadership antecedent found three factors related to empowerment of others, opportunities for professional development, and sharing up-to-date information where perspectives trended larger mean differences differed between the comparison groups. The

results showed differences as a consolidated organization as well. In addition to those two factors, other factors related to leadership showed a collective difference of opinions (mentorship, actions that align with values, and sharing up-to-date organizational directions).

The results from the organizational commitment antecedent found no significant differences in the perceptions between those in Group A and Group B. The results as a combined pool of data found several factors that demonstrate competing perspectives and create a baseline for future research. Table 49 shows that approximately 60% of participants agreed that they would be very happy to spend the rest of their careers with FORCECOM or enjoy discussing FORCECOM with people outside the organization. Fewer than 50% feel that either FORCECOM's problems are their own or that the organization has a great deal of personal meaning to them.

Table 49

Collective Results for Organizational Commitment Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	I would be very happy to spend the rest of my career with FORCECOM.	27%	13%	60%
2.	I enjoy discussing FORCECOM with people outside it.	25%	14%	61%
3.	I really feel as if FORCECOM's problems are my own.	27%	25%	48%
4.	FORCECOM has a great deal of personal meaning to me.	36%	16%	48%

Although 60% of total surveyed is a majority, one could assume that many of FORCECOM's members use their time with the organization as a steppingstone to achieve their

own personal vision. Without demographic information, it is difficult to determine whether this percentage resides with military members (who transfer in and out of FORCECOM through their USCG careers) or civilians (who might see a gap between their current positions at FORCECOM and the positions they would like to reach). Furthermore, perhaps the 27% who disagree with both happily spending the rest of their career with FORCECOM and that FORCECOM's problems are their own are the same 27% who disagree that they look forward to coming to work.

The data ultimately demonstrated only one of 21 factors as having a significant difference. When combining the data as a complete organizational entity, several trends identified competing perspectives related to the mental models discipline. These results should be considered by leadership when investigating future areas of improvement to ensure FORCECOM achieves a learning organization.

Shared Vision

Based on the notion introduced by Senge (1990) and supportive research, Bui and Baruch (2012) found that the "shared vision should begin with a personal vision to which one is committed" (Bui & Baruch, 2012, p. 520; Senge, 1990). The shared vision discipline, in conjunction with the personal vision, personal values, leadership, and organizational culture antecedents found none of the 26 factors to have differing perspectives between the two comparison groups; see previous sections. When consolidating the two groups into a collective entity, the perspectives suggest a difference of opinions. Table 50 shows that fewer than half of the combined participants agreed with the statement that they understand both FORCECOM's vision and how their performance directly affects the achievement of its mission. Only slightly

more than half of the participants feel they play an important part in the overall FORCECOM vision.

Table 50

Collective Results for Shared Vision Discipline

	Factor	% Disagree	% Neutral	% Agree
1.	I understand FORCECOM's vision.	33%	22%	45%
2.	I understand how FORCECOM's mission is to be achieved.	35%	22%	43%
3.	FORCECOM's mission statement identifies values to which I, as an employee, am expected to conform.	19%	20%	61%
4.	I am an important part of FORCECOM's vision.	26%	19%	55%
5.	Overall, I accept and support FORCECOM's mission.	9%	11%	80%

Thirty-nine percent of participants disagreed or were neutral to the statement that FORCECOM's mission statement identified values to which they were expected to conform as employees. It is possible that Coast Guard members join the service because there is direct correlation between one's personal vision with that of the organization; however, the study's findings seem to suggest otherwise. Alternatively, some participants did indicate alignment with overall U.S. Coast Guard mission but not with FORCECOM's mission specifically. This could explain the 80% of respondents who accept and support FORCECOM's mission.

Contributions from Bui and Baruch (2012) originally captured an additional antecedent related to communications, but Bui (2022) noted that this antecedent was excluded from Bui and Baruch's published work because the communication questions did not support their

contributions (Bui & Baruch, 2012; Bui, 2022). In order to evaluate where FORCECOM operates within Argyris and Schön's (1978) single- and double-loop learning models, Bui and Baruch's (Bui & Baruch, 2012) communication antecedent questions were modified to address FORCECOM's strategy plans, overarching policies to its customers, internal policies, and SOPs (Argyris & Schön, 1978). The survey queried perspectives related timeliness, accuracy, adequacy, completeness, and credibility within each of the governing variables.

Assumptions could be made that those operating within the operational/tactical level of the organizational hierarchy would perceive disagreement in the various factors for these documents than those at the strategic/operational level whose primary duties consist of updating and enforcing the governing variables.

The results in Tables 30, 31, 32, and 33 show zero differences of perspectives between the comparison groups. Findings suggest no difference of opinions in the timeliness, accuracy, adequacy, completeness, and creditability regarding FORCECOM's strategic plans, commandant instructions, or FORCECOM instructions. The only factors that suggest larger mean differences in difference of opinion were that HPT practitioners at the tactical level—who are required to use the SOPs in their daily performance—have a general disagreement on SOPs' timeliness and accuracy. The opinions of the comparison group at the higher level of the organization showed a more neutral average on these two factors. This further affirms initial concerns discussed in the literature review: FORCECOM operates within a single-loop learning path based on the firm's conflicting and out-of-date governing variables (Argyris & Schön, 1978).

Although the perspectives between the two comparison groups showed no differences of opinions of 20 factors out of 20 factors, the combined results in Table 51 suggest more conflicting perspectives within FORCECOM as a whole.

Table 51

Collective Results for Governing Variables Antecedent

	Factor	% Left	% Neutral	% Right
Strategy Plans	1. Untimely:Timely	32%	30%	38%
	2. Inaccurate:Accurate	21%	31%	48%
	3. Inadequate:Adequate	25%	25%	50%
	4. Incomplete:Complete	27%	27%	46%
	5. Not Credible:Credible	21%	23%	56%
Commandant Instructions	1. Untimely:Timely	32%	26%	42%
	2. Inaccurate:Accurate	13%	31%	56%
	3. Inadequate:Adequate	25%	27%	48%
	4. Incomplete:Complete	21%	29%	50%
	5. Not Credible:Credible	13%	35%	52%
FORCECOM Instructions	1. Untimely:Timely	35%	22%	43%
	2. Inaccurate:Accurate	25%	26%	49%
	3. Inadequate:Adequate	32%	21%	47%
	4. Incomplete:Complete	17%	25%	58%
	5. Not Credible:Credible	21%	28%	51%
Standard Operating Procedures	1. Untimely:Timely	44%	17%	39%
	2. Inaccurate:Accurate	33%	22%	45%
	3. Inadequate:Adequate	39%	17%	44%
	4. Incomplete:Complete	48%	11%	41%
	5. Not Credible:Credible	31%	19%	50%

Within all four of the governing variables, fewer than 50% of participants in 12 of the 20 factors agreed that documentation is timely, accurate, adequate, complete, and/or credible. As a collective body of governing variables, the competing perspectives could bring concerns to

leadership that FORCECOM's efforts function within the single-loop pathway and have direct impacts on the disciplines necessary to achieve the learning organization (Argyris & Schön, 1978; Senge, 1990).

Thirty-eight percent of participants perceived FORCECOM's strategy plans as timely, 32% did not, and fewer than one-third participant responses were neutral. One could assume that the frequent turnover of senior military leadership affects the longevity of these strategies. As members become acquainted with the organization and incorporate their agenda, strategy plans are updated in a less timely fashion. This could consequently affect the other contributing factors of accuracy, adequacy, completeness, and credibility, which also resulted in low percentages of employee agreement. The responses to these factors validate the shared vision discipline findings, which showed that 45% of participants understand FORCECOM's vision.

Similarly low percentages of agreement were found regarding commandant (external) and FORCECOM (internal) instructions. Approximately 50% agreed that commandant and/or FORCECOM instructions are timely, accurate, adequate, complete, and credible. These results suggest that FORCECOM operates its firm within the single-loop pathway (Argyris & Schön, 1978). One possible cause for this could be that respondents within the strategic/operational level are not performing their primary duties to ensure learned behavior travels through the double-loop pathway and that governing variables are updated. Without specific respondent demographic information, it is difficult to pinpoint exactly which division's policies (i.e., FC-T, FC-B, FC-A, or FC-CI) need attention.

Thirty-five percent of participants disagreed that FORCECOM encourages its staff to work in a systematic way. Regardless of which policy needs updating, these results make it

appear that those charged with performing such duties do not ensure systems thinking is applied across the organization to achieve a shared vision.

With regards to FORCECOM SOPs, though two factors of timeliness and accuracy resulted in larger mean differences in differencing of opinions between the two comparison groups; the combined data as a single FORCECOM entity suggests that 31% to 48% of the participants disagreed that all five factors were in favor of the organization's success. Depending on FORCECOM's vision, all 20 factors could provide a starting point for investigating how to ensure continuous improvement towards becoming a learning organization.

Team Learning

The final discipline to take into consideration in achieving a learning organization, team learning, had six antecedents for a total of 32 contributing factors. When calculating the difference between those performing duties within the strategic/operational level of the organization from those performing duties within the operational/tactical level, zero factors demonstrated differences in perceptions. In addition, incorporation of the 20 factors related to the governing variables were considered and found two factors with larger mean differences related to timeliness and accuracy of FORCECOM's SOPs. The one factor that resided within the questions specifically targeting the team learning discipline found a larger mean difference that those at the operational/tactical level were less likely to believe their ideas impacted FORCECOM, whereas those performing duties at the strategic/operational level agreed. Perhaps those at the higher level have means to directly influence leadership to embrace their ideas.

The results related to the team learning discipline when evaluating all participants as a single entity found high percentages of agreement within all five factors. Two factors' responses could be cause for concern: members' ability to solve most problems with the help from people

from different departments, and whether members' ideas are usually used within FORCECOM. Both factors resulted in 53% agreement rates. Table 52 shows that 20% or fewer of the combined participants disagreed with factors related to teams working well together, whether they form informal groups to solve FORCECOM problems, and being encouraged to solve problems with colleagues before discussing them with FORCECOM.

Table 52

Collective Results for Team Learning Discipline

	Factor	% Disagree	% Neutral	% Agree
1.	I solve most problems with help from people from different departments.	30%	17%	53%
2.	My ideas are usually used within FORCECOM.	28%	19%	53%
3.	People on my team usually work well together.	20%	9%	71%
4.	We sometimes form informal groups on our own to solve problems within FORCECOM.	15%	19%	66%
5.	I am encouraged to solve problems with my colleagues before discussing them with FORCECOM.	18%	24%	58%

The responses to the three factors connected to the goal setting antecedent resulted in no significant differences between Groups A and B. Table 53 displays the same three factors of team's setting clear goals, encouraged participation in goal setting, and equitable assignment to team members with the results displayed as a collective entity of all the FORCECOM participants who contributed to the survey as a single entity.

Table 53

Collective Results for Goal Setting Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	My team set clear goals before we really start any project.	23%	16%	61%
2.	Team members are encouraged to participate in the process of goal setting.	25%	13%	62%
3.	The goals assigned to our team members are equitable.	36%	14%	50%

The majority of participants agreed with all three factors related to teams setting clear goals before starting projects, team members being encouraged to participate in goal setting, and goals being assigned to team members equally. Although the results were greater than 50%, approximately 23% of the participants disagreed with all three factors, suggesting areas for improvement, especially within equitability of goal assignment. With 27% of participants stating they do not look forward to coming to work (motivation antecedent) and 26% not seeing themselves as being an important part of FORCECOM's vision (shared vision discipline), it is possible that some workers are performing the majority of efforts for those who possess the mentioned perspectives because they are not contributing to the team.

The team commitment antecedent factors resulted in no statistically significant difference between the two comparison groups (Table 36). Most of the responses from the combined FORCECOM participants indicated the sample agreed with the factors. Of the four factors listed in Table 54, two factors resulted in relatively large populations disagreeing with the statements that they feel at home among colleagues at work, and that they get involved with social activities with their teams.

Table 54

Collective Results for Team Commitment Antecedent

	Factor	% Disagree	% Neutral	% Agree
1.	I feel at home among my colleagues at work.	27%	5%	68%
2.	I try to invest effort into a good atmosphere in my team.	4%	0%	96%
3.	In my work, I let myself be guided by the goals of my team.	9%	9%	82%
4.	When there is social activity with my team, I usually get involved.	18%	13%	69%

It is possible that 26% of respondents who do not see themselves as being an important part of FORCECOM's vision (shared vision discipline) and 27% of participants who stated they did not look forward to coming to work (motivation antecedent) are the same 27% who do not feel at home among their colleagues. Similar to other theoretical reasons posited in this study, these results could stem from a leadership and communication breakdown at a specific unit or between the levels of the organizational hierarchy.

Organizational culture, leadership, individual learning, and development and training antecedents were also incorporated into the team learning discipline questions, as well as the questions about governing variables. As noted in earlier sections, organizational culture, as well as development and training, had zero factors; leadership had three factors with trending larger mean differences in responses; and individual learning had only one factor where responses indicated a difference of perspectives between the two groups. The combined perspectives throughout all four antecedents resulted in a greater number of factors for which responses resulted in differing perspectives, though not dramatic percentages, that could provide insight for FORCECOM to consider if it chooses to work towards achieving a learning organization.

The organizational culture antecedent (Table 40) results suggest that employees felt FORCECOM operates in a closed, bureaucratic, and reactive way; with some areas in which perception of the organization to be individual oriented, aggressive, and reserved. The leadership antecedent results in Table 41 show that approximately a quarter of the total participants did not feel FORCECOM continually looks for opportunities for staff professional development; empowers others to help carry out the organization's vision; mentor; ensure organizational actions are consistent with its values; or that it shares up-to-date information about FORCECOM's directions with employees. Responses to only one factor of the individual learning antecedent section resulted in differences of perceptions, with 25% of participants indicating that they do not like being on a steep learning curve at work. Responses to all four factors of the development and training antecedent section in Table 47 presented competing perspectives of the total participants to include 38% of respondents disagreed with the statement that FORCECOM encourages staff to develop team-working skills, and 45% felt FORCECOM does not encourage staff to identify skills they need to adapt to changes. Half of participants felt they were not mentored when they first took their current positions, and 38% disagreed with the statement that they have received the training needed to perform their current job effectively. In addition, responses to 16 of the total 20 factors within all four of the governing variables indicated that fewer than 50% of participants agreed that documentation is timely, accurate, adequate, complete, and/or credible.

Senge (1990) suggested that team learning is a "process of aligning and developing the capacity of a team to create the results its members truly desire" (Bui & Baruch, 2012; Senge, 1990, p. 236). Between the five discipline questions, 27 antecedent questions, and the 20 governing variable questions, 52 factors have a direct correlation with the team learning

discipline (Bui & Baruch, 2012). Results from 30 of those factors suggest differing perspectives. Team learning is an integral component for organizational efficiency. With nearly 60% of results for factors within the discipline indicating competing perspectives, team learning should be a fundamental area of focus for FORCECOM if it sets the goal of achieving a learning organization.

Limitations and Future Research

The initial purpose of this study was to compare the perspectives between two HPT-focused groups within the FORCECOM organizational hierarchy, and to determine whether responses to various factors indicated differences in accordance with Senge's (1990) five disciplines in achieving the learning organization (Senge, 1990). Bui and Baruch's (2012) evaluation tool provided means to capture the perspectives of FORCECOM's workforce, analyze the data, and identify factors related to learning organizations (Bui & Baruch, 2012). Several limiting elements presented themselves during the study, and they deserve further research.

The incorporation of demographic information would be beneficial for future research; possible demographics could include race, gender, age, length of time of FORCECOM employment, unit assignment, and military versus civilian. These demographic factors were excluded because they did not support the initial research questions. Their inclusion would, however, provide more specific means for analysis should FORCECOM focus efforts on achieving a learning organization. Analyzing unit specifics or member demographics could provide the answers to whether it was the military or civilian populations who felt excluded from team equitability, or where a leadership breakdown might be occurring. Understanding which units have certain perspectives could help determine whether distance from FORCECOM main office is a contributing factor for the approximately 30% of respondents who did not understand

FORCECOM's vision. Obtaining demographics pertaining to race, gender, or length of employment within FORCECOM could aid in understanding perspectives relating to workforce diversity, equity, and inclusion.

Small sample size and survey fatigue of 92 factors were other limiting factors. 206 personnel whose primary duties typically involve evaluating performance through observation or surveys were given the survey; only 69 participants began providing feedback, only 54 participants fully completed the survey. These factors contributed to potential loss in accurate data analysis. In addition, 15 participants only answered antecedent questions and did not answer the specific discipline questions or governing variables. This limiting factor—the lack of participation—might have been avoided by having either the FORCECOM admiral or chief learning officer directly email the survey to emphasize the importance of receiving responses.

Another limiting factor was the lack of Level-2 evaluation to confirm the perspectives of the 88% of participants who felt they have mastered the skills necessary for their job (competence antecedent) (Kirkpatrick & Kirkpatrick, 2006). The lack of previous benchmarks for comparison between historical FORCECOM responses or other similar organizations was yet another limiting factor, and future researchers should consider incorporating specific defined outcomes into their work to validate organizational performance. For example, responses to questions related to how often HPT products are evaluated could be used to validate whether perspectives of personal mastery matched standards in governing variables, or whether claimed perspectives operating in the single-loop learning pathway result in the breakdown of mental models and shared vision (Argyris & Schön, 1978; Senge, 1990).

Another future study could revisit the implementation of the Bui and Baruch (2012) evaluation tool, or the practicality of its use (Bui & Baruch, 2012). With the limited participant

pool, the survey used in this study might have been too lengthy to obtain a greater contribution of data. Possible strategies for future researchers to raise survey participation could include separating the survey into five smaller, discipline-focused surveys and/or allowing FORCECOM employees to participate in phases. Future research not focusing on evaluating particular antecedents could use different evaluation tools, such as the DLOQ developed by Marsick and Watkins (2003) or the *Building Blocks* evaluation tool from Gavin et al. (2008) (Marsick & Watkins, 2003; Gavin, Edmondson, & Gino, 2008).

Conclusion

There are markedly few differences in the perceptions of (RQ1) systems thinking, (RQ2) personal mastery, (RQ3) mental models, (RQ4) shared vision, or (RQ5) team learning between those performing duties within the strategic/operational level from those performing duties within the operational/tactical level of the FORCECOM organization. The results did, however, indicate that at least a quarter or more of participants had competing perceptions and lacked collective agreement for 43 of the 92 factors.

Although this research identified numerous factors highlights areas of concern, it also establishes a baseline standard for future research. Many theorists before Senge's (1990) publishing of The Fifth Discipline and many practitioners such as Bui and Baruch (2012) have pioneered the subject matter of organizational learning to ensure firms are "continually expanding its capacity to create its future" (Senge, 1990, p. 14; Bui & Baruch, 2012). To keep with the theme of practicing what you preach, future results of these findings would need to trend upwards to ensure FORCECOM is fostering a learning organization.

Organizations consist of many complicated processes designed to achieve its mission and hire an abundant amount of personnel who learn those processes to deliver products or services

the firm's clients. As organizations grow, leadership desires the cultivation of an atmosphere that continues to be effective and efficient for the betterment of the firm and its people. However, it is hypothetically easy for firms to develop a bias of self-perspective and make false assumptions in achieving the desired out than really is. FORCECOM is no different and has an advantage over other organizations because it is equipped with HPT practitioners.

This study not only provides FORCECOM with a sample of its employees' perspectives, but it also helps FORCECOM determine a baseline standard to focus strategic- and tactical-level efforts to improve. Completing this study allows members of FORCECOM a way to provide feedback to the collective leadership or management between the hierarchical levels to identify target issues needing immediate attention. With approximately a quarter of FORCECOM's sample disagreeing with a majority of the factors, this research not only provides a foundation to improve areas of leadership, professional development, and communications, but it also supports the community of practice within organizational learning and validates the applicability of the evaluation tool developed by Bui and Baruch (Bui & Baruch, 2012). Hopefully, other researchers can build on and extend this research in exciting directions in the coming decade.

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Appendix A: Force Readiness Command Sponsorship

U.S. Department of Homeland Security
United States Coast Guard

Commander
U.S. Coast Guard
Force Readiness Command

300 East Main Street
Norfolk, VA 23510
Staff Symbol: FC-B
Phone: (757) 628-5369
Email: Andrew.R.Campbell@uscg.mil

1811
Feb 2022

MEMORANDUM

From: Brignoni, G., SES
CG FORCECOM (FC-D)

BRIGNONI.GLADYS.1256967908 Digitally signed by BRIGNONI.GLADYS.1256967908 Date: 2022.02.14 11:47:15 -05'00'

Reply to Attn of: LCDR Andrew Campbell (757) 756-5369

To: CG-11 Institutional Review Board

Subj: PROGRAM SPONSORSHIP FOR RESEARCH PROPOSED BY LCDR ANDREW CAMPBELL

Ref: (a) Coast Guard Human Research Protection Program, COMDTINST M6500.1 (series)

1. Force Readiness Command (FORCECOM) fully sponsors the research project proposed by LCDR Andrew Campbell titled "Practice What You Preach: An Evaluation of U.S. Coast Guard's use of Human Performance Technology to foster a Learning Organization". The sponsorship is granted with the understanding that the government will incur no appropriated funds. Further, the researcher agrees to share the final results of the research study with FORCECOM.

2. The proposed study is to capture a baseline perspective of the FORCECOM subset population that directly leads, manages and executes Human Performance Technology practices. This will be accomplished with the use of an anonymous survey using a seven-point Likert scale that will be blind-emailed to selected participants derived from the Personal Allowance List (PAL). Questions within the survey will address whether or not there is a statistically significant difference in the opinions between those performing duties within the Strategic/Operational Level of the organization from those performing duties within the Operational/Tactical Level. No personal identification information will be collected other than which level of the organization the survey participant performs their duties.

3. The findings from the research will inform FORCECOM leadership of twelve antecedents and five disciplines aiding and/or inhibiting productivity of the organization. Baseline data will guide prioritization efforts to ensure a level of Personal Mastery and Team Learning create a Shared Vision for FORCECOM to foster a Learning Organization.

#

Copy: COMDT (CG-00B)

Appendix B: Indiana University IRB Approval

APPROVAL LETTER

To: Brush, Thomas

Protocol #: 14466

Protocol Title: PRACTICE WHAT YOU PREACH: AN EVALUATION OF U.S. COAST GUARD'S USE OF HUMAN PERFORMANCE TECHNOLOGY TO FOSTER A LEARNING ORGANIZATION.

Type of Submission: Initial

Level of Review: Exempt

Approval Date: Wednesday, March 2nd 2022

Expiration Date: no date provided

**If Expiration Date = "No date provided," this research does not require annual renewal; thus there is no expiration date.*

The Indiana University HRPP approved the above-referenced submission. Conduct of this study is subject to the IU HRPP Policies, as applicable.

Additional Notes:

This research is exempt under the following category:

-Category 2(i)

Documents approved with this submission:

Attachments

Protocol	FC_ResearchSponsorship.pdf
Data Collection Instrument	Survey.doc
Recruitment Materials	Consent.docx
Informed Consent Statement	ConsentTemplate.docx

You should retain a copy of this letter and all associated approved study documents in your research records.

If you have any questions or require further information, please contact the HRPP via email at irb@iu.edu or via phone at (317) 274-8289.

Appendix C: U.S. Coast Guard IRB Approval

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave. SE
STOP 7902
Washington, DC 20593-7902
Staff Symbol: CG-11
Phone: (202) 475-5213
Fax: (202) 475-5910
Email: Antonio.B.Carvalhais@uscg.mil

6500

11 Mar 2022

MEMORANDUM

NG.PIK.K.101707 Digitally signed by NG.PIK.K.1017079898 Date: 2022.03.11 11:16:45 -05'00'

From: A.B. Carvalhais, Ph.D. 9898
Chair, Coast Guard Institutional Review Board

Reply to: Pik K. Ng
Attn of:

To: A.R. Campbell
FORCECOM

Subj: PRACTICE WHAT YOU PREACH: AN EVALUATION OF U.S. COAST GUARD'S USE OF HUMAN PERFORMANCE TECHNOLOGY TO FOSTER A LEARNING ORGANIZATION

Ref: (a) Coast Guard Human Research Protection Program, COMDTINST M6500.1 (series)
(b) 45 CFR 46 – Protection of Human Subjects

1. The CG IRB understands the proposed study will capture perspectives from a subset of the CG FORCECOM population who leads, manages, and executes Human Performance Technology practices. The objective is to determine if there is a statistical difference between opinions of personnel working at the Strategic/Operational level versus those performing duties at the Operational/Tactical level of the organization.

2. The CG IRB recognizes the USCG FORCECOM (FC-D) sponsorship for this project and the University of Indiana IRB (UI IRB) as the primary IRB for this study.

3. The CG IRB reviewed the proposal pursuant to references (a) and (b) and concurred with the exemption determination by the UI IRB.

4. Any modifications to the objectives, procedures, or survey questions, submitted on 02 Mar 2022, must have CG IRB review and approval prior to implementation.

5. This determination does not preclude any reviews and requirements provided by the USCG Office of Privacy Management, CG-6P.

6. Should you have any questions or concerns, do not hesitate to email the CG IRB coordinator, Ms. Ng at pik.k.ng@uscg.mil.

#

Appendix D: U.S. Coast Guard Office of Privacy Management Approval

Privacy Office
U.S. Department of Homeland Security
Washington, DC 20528
202-343-1717, pia@hq.dhs.gov
www.dhs.gov/privacy

PRIVACY THRESHOLD ADJUDICATION

(TO BE COMPLETED BY THE DHS PRIVACY OFFICE)

DHS Privacy Office Reviewer:	**Brian Pochatila (Riley Dean)**
PCTS Workflow Number:	**0022263**
Date approved by DHS Privacy Office:	April 7, 2022
PTA Expiration Date	April 7, 2025

DESIGNATION

Privacy Sensitive IC or Form:	**Yes If "no" PTA adjudication is complete.**
Determination:	■ PTA sufficient at this time. ☐ Privacy compliance documentation determination in progress. ☐ New information sharing arrangement is required. ☐ DHS Policy for Computer-Readable Extracts Containing SPII applies. ■ Privacy Act Statement required. ■ Privacy Impact Assessment (PIA) required. ☐ System of Records Notice (SORN) required. ☐ Specialized training required. ☐ Other. Click here to enter text.
DHS IC/Forms Review:	Choose an item.
Date IC/Form Approved by PRIV:	Click here to enter a date.
IC/Form PCTS Number:	Click here to enter text.
Privacy Act Statement:	Choose an item. Click here to enter text.
PTA:	Choose an item. e(3) statement submitted and approved.
PIA:	**System covered by existing PIA** If covered by existing PIA, please list: DHS/ALL/PIA-069 DHS Surveys, Interviews, and Focus Groups If a PIA update is required, please list: Click here to enter text.
SORN:	Choose an item. If covered by existing SORN, please list: Click here to enter text. If a SORN update is required, please list: Click here to enter text.
DHS Privacy Office Comments: *Please describe rationale for privacy compliance determination above.*	

Appendix E: FORCECOM Learning Organization Survey

Demographic

Which FORCECOM unit do you work at?

- ○ FORCECOM (Front Office, FC-A, FC-B, FC-CI or FC-T, ETQC)
- ○ Training Center, Performance Technology Center (PTC) or Assessment Team Office (ATO)

Competence

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I am confident about my ability to do my job.	○	○	○	○	○	○	○
I am self-assured about my capacity to perform my work activities.	○	○	○	○	○	○	○
I have mastered the skills necessary for my job.	○	○	○	○	○	○	○

Organizational Culture

Please indicate how you would describe the organizational culture at FORCECOM on the following scales.

Stable	○	○	○	○	○	○	○	Dynamic
Closed/Bureaucratic	○	○	○	○	○	○	○	Open/Interactive
Reactive	○	○	○	○	○	○	○	Proactive
Individual Oriented	○	○	○	○	○	○	○	Group Oriented
Aggressive	○	○	○	○	○	○	○	Accommodating
Reserved	○	○	○	○	○	○	○	Friendly

Leadership

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
FORCECOM continually looks for opportunities to learn for his/her professional development.	○	○	○	○	○	○	○
FORCECOM generally supports requests for training and development opportunities.	○	○	○	○	○	○	○
FORCECOM usually empowers others to help carry out the organization's vision.	○	○	○	○	○	○	○
FORCECOM mentors those he/she leads.	○	○	○	○	○	○	○
FORCECOM often ensures that the organization's actions are consistent with its values.	○	○	○	○	○	○	○
FORCECOM shares up-to-date information with employees about the FORCECOM's directions.	○	○	○	○	○	○	○

Personal Values
Please study the list carefully and then rate each thing on how important it is in your life.

	Unimportant 1	2	3	4	5	6	Very Important 7
Warm relationships with others	○	○	○	○	○	○	○
Security	○	○	○	○	○	○	○
Self-fulfillment	○	○	○	○	○	○	○
Self-respect	○	○	○	○	○	○	○
Sense of accomplishment	○	○	○	○	○	○	○

Personal Vision
Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I set up career goals of my own.	○	○	○	○	○	○	○
I have my personal vision for my career.	○	○	○	○	○	○	○
Part of my personal vision is to make FORCECOM more successful.	○	○	○	○	○	○	○
I understand how the work I do helps FORCECOM achieve its vision.	○	○	○	○	○	○	○

Motivation

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I don't mind taking on extra duties and responsibilities in my work with FORCECOM.	○	○	○	○	○	○	○
I work hard and try to do as good a job as possible.	○	○	○	○	○	○	○
I look forward to coming to work.	○	○	○	○	○	○	○
I am very personally involved in my work.	○	○	○	○	○	○	○

Individual Learning

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
My own learning and development at work are essential to me.	○	○	○	○	○	○	○
I like being on a steep learning curve at work.	○	○	○	○	○	○	○
I prefer activities that provides me the opportunity to learn something new.	○	○	○	○	○	○	○
I am committed to life-long learning.	○	○	○	○	○	○	○

Development & Training

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
FORCECOM encourages this staff to develop team-working skills.	○	○	○	○	○	○	○
FORCECOM encourages this staff to identify skills they need to adapt to changes.	○	○	○	○	○	○	○
I was mentored when I first took up the job here.	○	○	○	○	○	○	○
I receive the training I need to perform my current job effectively.	○	○	○	○	○	○	○

Organizational Commitment

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I would be very happy to spend the rest of my career with FORCECOM.	○	○	○	○	○	○	○
I enjoy discussing FORCECOM with people outside it.	○	○	○	○	○	○	○
I really feel as if FORCECOM's problems are my own.	○	○	○	○	○	○	○
FORCECOM has a great deal of personal meaning to me.	○	○	○	○	○	○	○

Goal Setting

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
My team set clear goals before we really start any project.	○	○	○	○	○	○	○
Team members are encouraged to participate in the process of goal setting.	○	○	○	○	○	○	○
The goals assigned to our team members are equitable.	○	○	○	○	○	○	○

Team Commitment

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I feel at home among my colleagues at work.	○	○	○	○	○	○	○
I try to invest effort into a good atmosphere in my team.	○	○	○	○	○	○	○
In my work, I let myself be guided by the goals of my team.	○	○	○	○	○	○	○
When there is social activity with my team, I usually get involved.	○	○	○	○	○	○	○

Governing Variables

In supporting the execution of my duties, FORCECOM's Strategic Plans are:

Untimely	○	○	○	○	○	○	○	Timely
Inaccurate	○	○	○	○	○	○	○	Accurate
Inadequate	○	○	○	○	○	○	○	Adequate
Incomplete	○	○	○	○	○	○	○	Complete
Not Credible	○	○	○	○	○	○	○	Credible

In supporting the execution of my duties, FORCECOM's Commandant Instructions are:

Untimely	○	○	○	○	○	○	○	Timely
Inaccurate	○	○	○	○	○	○	○	Accurate
Inadequate	○	○	○	○	○	○	○	Adequate
Incomplete	○	○	○	○	○	○	○	Complete
Not Credible	○	○	○	○	○	○	○	Credible

In supporting the execution of my duties, FORCECOM's Instructions are:

Untimely	○	○	○	○	○	○	○	Timely
Inaccurate	○	○	○	○	○	○	○	Accurate
Inadequate	○	○	○	○	○	○	○	Adequate
Incomplete	○	○	○	○	○	○	○	Complete
Not Credible	○	○	○	○	○	○	○	Credible

In supporting the execution of my duties, Standard Operating Procedures are:

Untimely	○	○	○	○	○	○	○	Timely
Inaccurate	○	○	○	○	○	○	○	Accurate
Inadequate	○	○	○	○	○	○	○	Adequate
Incomplete	○	○	○	○	○	○	○	Complete
Not Credible	○	○	○	○	○	○	○	Credible

Five Disciplines

Please indicate the extent to which you agree or disagree with the statements on you and FORCECOM.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
There is no gap between my current position at FORCECOM and the position I would like to reach.	○	○	○	○	○	○	○
I have a personal goal of moving beyond my current position within FORCECOM.	○	○	○	○	○	○	○
I have a clear idea of my personal future as an employee within FORCECOM.	○	○	○	○	○	○	○
As an employee of FORCECOM, I am encouraged to explore the way things are being done.	○	○	○	○	○	○	○
I have a clear picture of my current position within FORCECOM.	○	○	○	○	○	○	○
I solve most problems with help from people from different departments.	○	○	○	○	○	○	○
My ideas are usually used within FORCECOM.	○	○	○	○	○	○	○
People on my team usually work well together.	○	○	○	○	○	○	○
We sometimes form informal groups on our own to solve problems within FORCECOM.	○	○	○	○	○	○	○

I am encouraged to solve problems with my colleagues before discussing them with FORCECOM.	○	○	○	○	○	○	○
I understand FORCECOM's vision.	○	○	○	○	○	○	○
I understand how FORCECOM's mission is to be achieved.	○	○	○	○	○	○	○
FORCECOM's mission statement identifies values to which I, as an employee, am expected to conform.	○	○	○	○	○	○	○
I am an important part of FORCECOM's vision.	○	○	○	○	○	○	○
Overall, I accept and support FORCECOM's mission.	○	○	○	○	○	○	○
I believe that my job has an impact on the whole FORCECOM.	○	○	○	○	○	○	○
I have the power to change things within FORCECOM.	○	○	○	○	○	○	○
FORCECOM encourages staff to see themselves as interrelated parts with the others.	○	○	○	○	○	○	○
FORCECOM encourages team learning and working.	○	○	○	○	○	○	○
FORCECOM encourages its staff to work in a systematic way.	○	○	○	○	○	○	○

FORCECOM treats its staff fairly.	○	○	○	○	○	○	○
FORCECOM provides necessary skills for professional development.	○	○	○	○	○	○	○
FORCECOM provides opportunities for professional development.	○	○	○	○	○	○	○
FORCECOM has an appropriate mechanism to bring staff together to develop the best ways of problem solving.	○	○	○	○	○	○	○
When there is a problem in my department, we also seek help to handle the problem from other units of FORCECOM.	○	○	○	○	○	○	○

Curriculum Vitae for Andrew R. Campbell

EDUCATION

Indiana University (Bloomington, IN): *Ed.D. in Instructional Systems Technology* 2022

American Military University (Charles Town, WV): *M.A. in Homeland Security* 2008

Everest University (Fort Lauderdale, FL): *M.S. in Criminal Justice* 2006

Humboldt State University (Arcata, CA): *B.S. in Applied Computer Science* 2001

CERTIFICATION

International Society for Performance Improvement (ISPI) 2015
Certified Performance Technologist (CPT)

EXPERIENCE

U.S. Coast Guard (Norfolk VA) 2020 – 2022
Executive Advisor

- Provided strategic level consultation to Chief Learning Officer (CLO) for identification, development, and implementation of scientific methods, instructional strategies, and various methods of learning.
- Conducted accelerated Job-Task Analysis at request of Executive Official to determine complexity & feasibility of incorporating cloud-based technology to optimize enterprise education and training quota management practices as well as benchmark best-practices amongst DoD/DHS counterparts.
- Lead analyst of internal financial process review; developed comprehensive business process models with supporting procedural documentation to ensure compliancy of $130 million training budget execution.

U.S. Coast Guard (Elizabeth, City, NC) 2018 – 2020
Dean of Aviation Vocational Institute

- Directed aviation technical institute, leading a staff of 120 members to deliver 12 courses in aviation maintenance and electronics and 5 courses in search and rescue; graduated 3500 students.
- Initiated transformation of traditional aviation technical training to modernize platform with mobile learning devices, campus Wi-Fi and blended learning solutions as well as 3-D scanning/printing of high-fidelity aircraft parts for practical exercise & acquisition of full-scale augmented mock-up aircraft.

U.S. Coast Guard (Petaluma CA) 2014 – 2018
Associate Dean of Culinary Institute

- Director of schoolhouse consisting of 30 instructors that provided various courses in culinary arts and administrative/financial management: graduated 350+ students annually with $150,000 budget.
- Integrated technology with implementation of iPads into classroom that eliminated paper-based textbooks, transformed an advanced baking school into a blended course, enabling a 166% throughput increase and utilized YouTube to provide a monthly professional development webcast.

- Responsible for operation of Coast Guard's largest dining facility; supervised 65 service workers that produced 219k meals annually for 600+ patrons daily. Annual operating budget of $2 million.

U.S. Coast Guard (Alameda, CA) 2010 – 2014
Intelligence Training Specialist
- Implemented a multi-proficiency competency for approximately 2000-member Intelligence workforce and SharePoint site that provided policies, structured on-the-job qualifications, and residential training materials.
- Oversaw and drove quarterly assessment program ensuring compliance with rigorous government regulations for 17 Intelligence units.
- Recruited and Trained 30 specialized Intelligence personnel who supported Coast Guard and Navy patrols in South America, resulting in seizure of over 100,000 kilograms of narcotics.

Virginia College (Birmingham, AL) 2008 – 2010
Associate Professor
- Instructed 18 online courses for undergraduate program in Criminal Justice.
- Member of Faculty Editorial Board for Journal of Law and Justice.

U.S. Coast Guard (Washington DC) 2006 – 2010
Instructional Technologist
- Implemented E-learning courses and eliminated over one million workhours, saving $42 million annually.
- Analyzed functional requirements for Learning Management System selection to support Coast Guard training system, consolidated over 120 disparate systems with implementation strategy of off-the-shelf procurement of Plateau.
- Implemented interactive 3-D modeling and saved $2 million by establishing international agreement with Canadian Air Force and U.S. Defense to share existing aircraft, engine, and weapons models.

U.S. Coast Guard (Alameda, CA) 2004 – 2006
Technology Division Supervisor
- Supervised 10-member staff that provided computer support to 500 customers.
- Created several job-aids for public outreach that directed six million citizen waterway users to identify and report suspicious/terrorist activity.

Biofiltrations Systems Technologies Corporation (Sarasota, FL) 2001 – 2003
Graphic Designer
- Graphic designer for printed marketing materials, training videos and web properties for corporation that offered technology-based solutions such as delivery of high-speed wireless Internet services to businesses, commercial customers, and residential communities.

Residential Communications Network Corporation (New York, NY) 2000 – 2001
Systems Designer
- Developed Geographical Information System, provided regional access to monitor and track operations and security of telecommunications facilities for corporation that provides resident customers with bundled packages of digital entertainment, communications, and information services.

Humboldt State University (Arcata, CA) 1996 – 2000
Instructional Designer

- Drove conversion of residential instruction to web-based delivery (California Virtual Campus) at dawn of Internet!

AFFILIATION

International Society for Performance Improvement (ISPI) 2022 – 2024
Board of Directors

International Society for Performance Improvement (ISPI) 2021 – 2022
Conference Committee Chair

PUBLISHINGS

Dive GTMO: Scuba Diving in Guantanamo Bay, Cuba 2003
ISBN: 9781411698642

RECOGNITION

International Society for Performance Improvement (ISPI) 2010, 2012, 2018, 2019
Outstanding Human Performance Intervention

United Stated Coast Guard 2010
Commandant's Innovation Award for Administration, Training or Support

Association for Talent Development (ATD) 2009
Excellence in Practice

PRESENTATION

ISPI The Performance Improvement Conference 2022
Back of the Napkin

ISPI The Performance Improvement Conference 2021
Agile Adaptation in a Learning Organization (Master Series)

ISPI The Performance Improvement Conference 2018
Cooking up Professional Development

ISPI Potomac Chapter Webinar 2015
Accelerating your Career with the ISPI Certified Performance Technologist (CPT) Certification

U.S. Coast Guard Human Performance Technology Conference 2011
100 Days as a Cyborg

U.S. Coast Guard Human Performance Technology Conference 2010
Crawl, Walk, Run

U.S. Coast Guard Human Performance Technology Conference 2009
Evaluating Human Performance with Fitness Technology

Joint Advanced Distributed Learning (ADL) Co-Lab iFest Conference 2007
U.S. Coast Guard ADL Initiatives