

Beyond Innovation and Implementation: Sustaining Technology Transformation

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ABSTRACT

A significant transformation is taking shape across the services that involves several goals including sharing joint force all-domain warfare principles, executing tighter timeframes for technology development and acquisition, and focusing on agile innovation and implementation for readiness optimization. However, while these initiatives are necessary to drive a cultural shift that enhances coordination across services, they are insufficient for developing sustained modernization. Rather, the final hurdle to achieving these goals is the need for ongoing human support to ensure initial recommendations continue to be supported and augmented as needed.

Often referred to as the “valley of death,” technology, training, and innovation initiatives are challenged during the research-to-operations translation phase. However, the phase from implementation to sustainment is equally important. Long-term use of technology requires gaining organizations to be open to, capable of, and most importantly, supportive of change. Additionally, organizations must ensure that change agents put in place to drive initial efforts are also mentored and coached to promote sustained growth. The US military has struggled to create the supporting structures, policies, and resources required to ensure initiatives transition to long-term implementation across the force.

As part of a broader Talent Management Task Force initiative, the US Navy established a line of effort focused on a) building, implementing, and sustaining a coaching framework to facilitate sustained Sailor growth and development while maximizing Sailor potential and performance, b) developing methods to evaluate the effectiveness and return-on-investment coaching can have as part of the Navy’s greater talent management transformation efforts, and c) operationalizing the Navy’s set of 21st-century signature behavioral expectations. The MyNavy Coaching initiative exemplifies a full-scale method for sustainment that will be implemented force wide. Accordingly, this paper addresses the issues facing the implementation of change, how Humans System Integration (HSI) and organizational change methods can simplify the approach, and finally, how to utilize the work of MyNavy Coaching to guide future efforts.

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BACKGROUND

The goal of research and development (R&D) for training and education is to improve or enhance performance in humans, processes, learning, and other areas. Scientists, engineers, academicians, military, and industry all work together to identify gaps in their organizational capabilities and look to R&D to produce a solution which will minimize or close that gap. However, too often the implemented solution fails to gain traction as intended or only provides a minimalized return on investment and oftentimes lacks a sustainable plan to carry the effects of the solution across the enterprise.

Additionally, the leap ahead pace with which technologies are researched, developed, and introduced into the hands of learners is a double-edged sword. It is relentless and unforgiving, but it also breeds fertile ground for innovation (Christensen, 2013). Saturation often comes at a healthy price to the end-user if the research becomes a victim in the acquisition “valley of death” (Maughan, Balenson, Lindqvist, & Tudor, 2013). When this occurs, R&D efforts are often viewed by those external to the Department of Defense (DoD) scientific or academic communities, as science projects that gather dust on the proverbial shelf.

Thus, the intensity or momentum with which enhancements are introduced into organizations is not a telltale sign of the sustainability they will have. Too often, the new item, technique, process, widget, effort, or technology enters an organization with fervor from the vendor, the buyer, and decision makers who are bringing it to the organization, but once it is removed from this sphere of influence, when not properly planned for – it loses steam and again has potential to become a victim of the valley of death. Interventions fail to reach widespread use or fail to be utilized operationally. In these cases, the R&D effort has achieved successful implementation, but the value is not translated to those who will put it into full and sustained use. After a few changeovers of personnel, the effort is typically forgotten, or worse, the gap remains, and a new effort is started to solve the same problem.

The Cost: When Decay in Standardization Affects an Organization

As a result of the lack of focus on implementation longevity, atrophy and decay can be seen in a multitude of efforts where the initial onset of sustainment is not part of the planning or implementation process. Adding to this challenge are the unique issues present when implementing modeling and simulation (M&S) products into training organizations. Specifically, rather than enhancing existing products or processes, these technology advancements are often entirely new and may not be intuitive. The threat is that if a speed bump is present, individuals may tend to revert to prior experiences. Rather, human behavioral changes require guidance, affirmation, and reinforcement. Yet when these supports are not provided, the behavior does not become standard and a deviation is likely to occur over time while sustainment dwindles (Copes & Williams, 2007). It is noteworthy that the slippery slope of standardization decay does not occur all at once. It starts small, and without a deliberate focus to sustain the importance of standards, attention to training, and implementation practices it grows wider, and often may carry grave consequences. The tragic events of July 30, 2020 echo this point by an amplification of events or a “chain of failure” in which a unit did not train properly, saw technical failures go unnoticed, ignored procedures, and a lack of safety considerations led to the tragic and needless deaths of 12 Marines and a Navy Corpsman (USMC, 2021). Vendors, developers, engineers, and stakeholders need to present the end-users and their organizations with a plan that will set them up for success in sustaining the change that their effort will bring. To do this, organizations must coordinate with a variety of knowledge owners, provide for flexibility, learn from past innovations, and provide for ease of translation of the effort (Bartel & Garud, 2009).

WHY SUSTAINABILITY MATTERS

Ultimately, to achieve the return on investment (ROI) expected by strategic level decision makers, appropriate resources need to be aimed at sustaining the effort, implementing necessary policy changes, and providing support to leadership to utilize the effort. Otherwise, these issues will continue to lead to questions of ROI, utilization, and sustainment in an ever increasingly scrutinized acquisitions environment. Sustainment, broadly, is the maintaining of programs, their components, or their outcomes after the initial intervention, adoption, or support is completed (Stumbo, Ford, & Green, 2017). Thus, while the valley of death is not a new concept in military R&D, it is one that remains important to solve. Leadership and comptrollers alike are demanding to know where funding is being spent and ultimately, the results of that spending. Operational units are sending up demand signals with increasing speed for training aids or tools to help them as end-users to perform the mission. This gap must be addressed in order to sustain the change and ensure readiness.

The issue is at the point beyond implementation and begins at adoption, then carries to sustainment. The fiscal responsibility of all those who benefit from tax dollars is to provide the necessary solutions to close capability gaps in support of the common defense. When these solutions fail to be sustained, the cost to the government and the taxpayers increases with the lowered ROI. More pointedly, research, development, testing, and evaluation (RDT&E) work is done to support DoD mission requirements. The RDT&E work done in the DoD alone (FY20) constituted 41.4% (\$64.5B) of all federal R&D appropriations (Sargent, Jr., 2020). As discussed, if the necessary resources, personnel, policy, and time are not allocated then the effort may fail out of the gate. Leading the way in innovative research is not the issue with DoD; the issues involve ensuring appropriate adoption and supporting sustainment (Boyd, 2019). Organizational change management can improve the sustainability of these effort if they are planned for and executed appropriately. The underlying values work to set the tone for those members of the teams that will adopt and sustain these projects and ultimately long-term improvements.

EFFORTS IN THE DoD

Several efforts across the department are being rolled out with the intention of driving innovation, ensuring rapid award, and moving technologies directly to the fleet. Specifically, innovation hubs (Naval X, AFWERX, Hacking for Defense, Army Futures Command, National Security Innovation Network, the Defense Innovation Board, Defense Advanced Research Projects Agency (DARPA), Small Business Innovation Research (SBIR), Small Business Technology Transfer (STTR)), 179 in all (Walcutt, 2019), are operating as locations for responding to challenges, coordinating efforts, and providing small startup funds for technology demonstrations and translations from other industries to the DoD. Key areas of interest include nanotechnology, augmented reality, artificial intelligence, unmanned systems (e.g., air and sea), electronic warfare, and many others. Of particular interest are those areas of study that are as yet unaware in the department. The drumbeat for many of these areas is to improve efficiency through technology development which drives R&D entities (e.g., academic and industry) to focus on these advancements. Yet the cross-coordination between these initiatives is minimal, at best, and leaders from the highest levels have highlighted where many areas put the DoD at risk of falling behind the nation's adversaries by not keeping pace in areas of science and technology and seemingly having been "asleep at the wheel" (Tirpak, 2021, para. 1).

Other areas of concern are to improve the acquisition timeline in order to get solutions to end-users. Acquisition timelines can be seen as a disadvantage when non-state actors are able to utilize commercial off-the-shelf (COTS) products immediately (Gravier & Hawkins, 2019). One of the focal points in recent times to improve this timeline has focused on software development. The Agile methodology has been implemented across developing agencies within the DoD to work towards streamlining information technology efforts. Another example has been in the utilization of the Other Transactional Authorities (OTA) which can shorten the timing from idea to R&D to implementation in specific areas of development such as the Training and Readiness Accelerator (TRES). However, the use of these funding vehicles remains low and the sharing and implementation of the findings across the department are even smaller.

Meanwhile, the joint nature of current operations and requirements to move toward all-domain warfare ideals continues to drive an increase in the need for federated or linked R&D outcomes and specific to learning, connecting trainers and simulators across all services. Once achieved, this will enable an increase in deliberate training at the team and organizational level which will result in greater mission interoperability at the technological, physical, and

knowledge sharing levels among the joint operations. Yet, while examples of successful singular projects can be seen in the implementation of example programs such as the Indoor Simulated Marksmanship Trainers at weapons facilities across the DoD or the Personalized e-Book for Learning (PeBL) enhanced workbook implemented in the Marine Corps to enhance self-paced learning of new material (Cooper, 2020), DoD-wide implementation of these findings remains extremely limited. The consequences of these limitations involve not only a slowing of R&D advancements but a lack of global competitiveness, troop readiness, and the multiplying effects that can only emerge if outcomes are combined and sustained across disciplines as well as the fleet.

KEYS TO SUSTAINMENT

To achieve these goals, the keys to sustainment must be first be understood and stratified by personnel structure across the acquisitions pipeline. Specific to education and training, these can be summarized into individual, team, collective and organizational levels. As an example, within an infantry unit, this could be viewed as the individual Marine, fire team or squad, company, then higher echelons such as battalion or Marine Expeditionary Force (MEF) level training. The various outcomes of these interventions, innovations, technologies, and tools are key elements needed to support learning and readiness across each community. It is this sharing of information holistically and the intentional augmentation of the advancements per level that make possible a coordinated and sustained impact.

Individual Level

At the individual level, it is important to first establish awareness of and then clearly define the utility of the effort for end-users. Further, the validation, verification, and accreditation (VVA) process during acquisitions should address concerns for end users by having subject-matter experts (SME) and representatives from the target community (DOD, 2012) support early adopters and implementation. Practitioners of HSI can work with program managers during this phase of the process to ensure the end user is considered and lay the foundation for sustainment planning. By way of example, in 2015, the US Marine Corps (USMC) Training and Education Command (TECOM) responded to a demand signal from leadership to answer some of these questions. The Simulations Assessment Working Group (SAWG) set out to assess the utilization of available trainers as well as their suitability for training to the appropriate Training and Readiness (T&R) events (Telford, 2016). The effort, which should have been a verification process, instead had to focus on trying to understand why many of the systems were underutilized. Findings demonstrated simply that individuals either did not know the trainers were available or did not know how to use them or implement them into training. Thus, at the individual level, awareness and usability clarity are key.

Unit Level

At the unit level, leadership support is crucial to ensuring the sustained implementation of efforts that transition from R&D. Specifically, key components of leadership as it relates to training, consist of the commanding officer, operations officer, training officer, senior enlisted, and individual shop/team/department leads. The commanding officer sets the tone by providing the overarching guidance to prepare their unit for the upcoming mission set. These of course are typically set out by the Mission Essential Task List (DOD, 2002). The operations officer sets the tempo for the squadron training plans which are supported by inputs from the training officer. The training officer is key, because driven by the learning objectives, they must determine the appropriate course of action to get unit members trained. Senior enlisted leadership have a vested interest in seeing to it that their teams are at their prime and ready to deliver on mission. They must have a high sense of faith in the systems that are being used to train and understand how and why it will enhance training from how it was done before. Finally, the training plan itself is even important because in addition to setting the pace for training, it also helps create pathways for individuals to know and understand what they need to do in order to obtain critical qualifications and designations to support the unit. In other words, the plan helps align the need for the R&D effort to the training pipeline meaningfully.

Yet, several hiccups in this pipeline inherently exist. For example, what if no learning objective or T&R requirement that needs the innovation has been developed yet? Then where is the compelling drive to utilize the system to accomplish training coming from? Also, has the unit-level leadership been encouraged by their senior leadership to implement the technology? How is that trickling down? Has the unit been given the appropriate support from acquisition or R&D authorities like the Program Management – Air components (PMA) to implement the system change? Within the US Navy, PMA organizations exist to support the coordination of many of these implemented technologies. For example, with the recent improvements to the Tactical Combat Training System Increment II (TCTS

II), PMA-205 supported the effort by collecting data and coordinating with the Air Test and Evaluation Squadron (VX-23), and the industry partner to work through any potential issues ahead of implementation (NAVAIR, 2021). Recognizing the necessity to support implementation beyond innovation development is critical to sustainment at the unit level.

The Organization

While every level is important for implementation, the crucial component when it comes to funding and supporting sustainment is the organization. The organization must support the implementation and foundation for sustainment by providing the necessary resources (e.g., time, funding, system support, and personnel) for the intervention to take root and hold (Buono & Kerber, 2010). Resources are known agents which drive the availability of systems. The procurement officials take these resources into consideration when balancing the needs of the organizations that they support. Funding is made available to organizations as a result of the planning, programming, budget, and execution (PPBE) process, specifically during the Program Objective Memorandum (POM) phase (DOD, 2017). An outcome of this process is the recommendation on how funding should be allocated in accordance with Defense Planning Guidance. This levies a heavy and important burden upon this level of leadership to understand and translate the needs, requirements, and training gaps of subordinate units. In many cases, these units have voiced concerns, but these higher levels must parse them for those deemed critical or most worthy of expending the allocated resources.

Time is another important resource. The procurement process is often criticized as lengthy. Bureaucratic or institutional impediments add to this timing or inhibit innovation altogether (Jungdahl & Macdonald, 2015). Specifically, as a resource, time is a concern not just in the time to get the enhancement, but the time it will take to learn the improvement and time to see it fully implemented. Then, there are competing requirements to training. Unfortunately, T&R training are not the only training requirements commanders face. Additionally, there is annual and ancillary training. Sprinkle in the human element of weekends, holidays, and time off, this squeezes the training triad of the Commanding Officer (CO), Operations Officer (OpsO), and training officer (TrgO). Time then becomes a commodity, a resource which is not infinite, must be planned for, and must be a consideration for any effort to be sustainable.

Finally, the operational tempo at which military training and education moves often creates a supposed divergence of paths, one of learning quickly or profoundly, yet adversaries of the future will require personnel to maximize learning efficiency and do both (Vogel-Walcutt, Carper, Bowers, & Nicholson, 2010). Are the developers considering the time requirements that will be placed on a unit/individual that will implement this? Will it save time? Does it bring time efficiency? These are crucial to sustainability because if these items become a time sponge and especially if it requires more, then the ROI needs to equally be increased.

CULTURE RENOVATION

It is little wonder that so many innovations, great ideas, and developed products are lost across the pipeline. The DoD pathway is not only highly complex, but it is also separated substantially by ever-changing personnel authorities that it would be impossible without intentional external support to optimize implementation or continued use. Sustainability for innovation requires a culture renovation which hones in on core elements of the organization and process that require renovation versus complete transformation (Oakes, 2021).

Thus, sustainability is not dependent upon resources alone. The individuals that are recipients of changes are dependent upon a culture within organizations that support advancements at all levels of the organization (Al-Ali, Singh, Al-Nahyan, & Sohal, 2017). The organization itself must be able to recognize, flex, and support long term planning and action with a cadre of change agents – those who understand the requirement for change as well as the desired outcome or end state. The most fertile cultures that breed innovation create a learning, dynamic system of continuous improvement towards deliberate development of the organization (Cavallaro & Nault, 2020). Thus, the keys to organizational aids for change are seen in the support provided to personnel, structure, and as previously mentioned, resources.

Personnel

Redesigning a more effective pipeline first requires an organizational culture which supports personnel understanding the need for improvements and the shared vision of organizational outcomes as a result of that action (Buono & Kerber, 2010). Though this may at first seem challenging with a steep learning curve for personnel, it may bring about improved organizational knowledge that is shared and can help influence personnel to modify their behavior – which improves organizational performance (Lapre & Nembhard, 2010). Change agents within an organization aid in achieving this goal by preparing personnel for the impending changes and understanding why they are necessary. These agents are an important part of success because failures in sustainment can oftentimes be tied back to personnel who are ill-prepared to handle the intervention, unsure of what it means for their role in the organization, or a lack of trust in those leading the change (Gill, 2002).

Organizations must ask themselves if the change agents and leadership are committed and have the necessary resources to support the interventions. Those chosen as agents to lead the change must be in place, committed to the change, and viewed by teams as credible and trustworthy (Gill, 2002). These considerations occur even prior to the interventions. Leadership must be able to assess prior to the intervention how the current attitudes by personnel within the organization will shepherd or hinder change (Smollan & Sayers, 2009).

Thus, the greatest catalyst for successful implementation and sustainment is at the core level of leadership when they are interactive with their teams. As an example, in the Navy this may be referred to as deck plate leadership with the mindset of “lead from the feet, not from the seat.” In corporate offices, it is sometimes referred to as management by walking around, or MBWA. Regardless of the term, the commitment that teams see in their leadership to onboard changes impact these organizational members to bring them out of their comfort zone and beyond the status quo (Quinn & Sonenshein, 2008). Leaders must overcome their desire for the status quo. It is important for leadership to understand that the communication of the “why” is not a challenge against their leadership but a means for them to be both a transactional and transformative leader (Al-Ali et al., 2017). Breaking down barriers in these gaps begins by providing clarity in the changes that are being brought forth and communicating them to all members. Sharing this vision with members and aligning the organizational goals with their own values will increase the sense of purpose that members have and will foster their support and commitment to sustaining the change (Gill, 2002).

Structure

The structure of the organization provides the organic framework for sustainability. This starts with the intangibles, such as the values of the organization. Does the organization support innovative methods, lifelong learning, or is the organization tied to tradition commonly referred to as “the way we do things around here?” This is important because if the values of adapting to and embracing technology improvements are shallow and not part of the heuristics of the individuals and the organization, the behaviors of those within the organization will revert to previous norms (Thornbury, 2003). Organizations that are unprepared for the onset of these changes often fail to catch up to the rapid pace of change and adapting to the necessary adjustments to put these interventions into practice (By, 2005).

In addition to the framework within an organization is the consideration for growing the talent of an organization. Organizations seek leaders but are they doing enough to grow them? Leaders must possess the appropriate knowledge, skills, abilities and other characteristics (KSAO) to be able to implement the change, evaluate it in real-time and apply any appropriate adjustments to affect sustainability (Al-Ali, Singh, Al-Nahyan, & Sohal, 2017). If these are not already present in organization leaders, these factors must be developed. This ties back to the values of the organization themselves, whether an organization is prepared for adaptability, or if they pave the road to change with speed bumps and hurdles.

Resources

Key resources are needed to build communities that can support synergistic capabilities across interdisciplinary fields which may optimize outputs (Vogel-Walcutt, et al., 2018). Specifically, these resources are provided through three types of change implementation pathways: directed, planned, and guided (Buono & Kerber, 2010). The directed change is the top-down or hierarchical change in which the members of an organization feel that they are having the change forced upon them. In these cases, sustainment is difficult because it places a gap in the understanding the need for change between leadership and members and creates a barrier to sustainment of the change. Planned implementation provides a roadmap for change with delineated milestones and waypoints. This type may be viewed at times as too rigid or lacking flexibility. Given the numerous factors that go into procurement, this is often where

the acquisitions process lies with the formal steps as well as some cooperation between developers, leadership and users. Guided is the most sustainable type of change implementation because in this case, the members feel a sense of contribution towards the purpose for change (Buono & Kerber, 2010). The more that members are involved in the process, the more their perspective is heard and the more opportunity for them to become agents for change within the organization and the sense of buy-in carries them forward to adjusting as needed to sustain the change. However, to be part of the process, all affected personnel must be awarded adequate time to plan for needed adjustments, consideration to share unanticipated issues, and oftentimes money to pay for needed support tools or additional personnel. Recognizing these resource needs and the pathway to award them is a critical, and unavoidable, requirement if sustainability is to be achieved.

EXAMPLE MODEL FOR SUSTAINABILITY: MYNAVY COACHING INITIATIVE

US Navy strategic guidance recognized a need in the management of their most crucial asset – the Sailor. The Navy’s *Sailor 2025* program is focused on improving personnel management and training systems to recruit, develop, manage, reward, and retain personnel. It attempts to address this from a holistic perspective with three pillars: 1) personnel system modernization; 2) ready, relevant learning; and 3) career readiness (MyNavy HR, 2019). Further focusing on personnel, the *Signature Behaviors of the 21st Century Sailor*, discusses the importance of developing a culture of excellence and posits the path to get there is the development of personal and professional performance of Sailors (Aquilino, Grady, & Foggo, 2020). Yet, as reviewed in this paper, simply creating new goals and identifying new behavioral targets is not enough. There is an explicit necessity to support at each level of the organization with resources, time, and guidance that will ensure sustained change. Alternatively, another “great idea” will become a remembered shiny object (Armendariz, 2017). Thus, to assist with this effort, the Navy additionally developed the forthcoming complementary MyNavy Coaching initiative. This initiative’s development, purpose, and execution will not only help with this specific set of goals, but by way of process, also acts as an example of how to build and implement sustainable change.

Description of the MyNavy Coaching Initiative

MyNavy Coaching is a Chief of Naval Personnel (CNP)-led initiative aimed at creating and sustaining a Navy coaching culture with the goal of improving individual Sailor performance and maximizing the potential of all Navy personnel to guarantee mission success. MyNavy Coaching is a way to implement senior leader guidance that calls for attracting and retaining top talent and investing in their education and training to achieve maximum performance outcomes in the era of the Great Power Competition. Sailors of all ranks can engage in Peer-to-Peer coaching by practicing the core skills taught in MyNavy Coaching to be more coach-like: active listening, cultivating empathy, and asking powerful, open-ended questions using the GROW (Goal, Reality, Options, Will) Model (Whitmore, 2017). This personal growth of Sailors will hone them as leaders, and through continued growth and opportunities, Sailors will enrich themselves, their teams, and the Navy by sustaining these practices into a renovated leadership culture.

Preparing for Change: Reviewing Individual, Unit, and Organization Levels

The MyNavy Coaching initiative is a way to also implement and sustain the goals of a program such as Sailor 2025 as well as other ongoing processes in talent management in which feedback is critical. To build MyNavy Coaching, it was necessary to first assess the deliberate developmental conversations that occur through Mid-term Counseling. Findings revealed that as currently implemented, practiced, and enforced, it yields inconsistent, unmeasurable results. Essentially, this mid-year performance review process has created a culture that drives formal performance feedback twice a year yet inadvertently conveys the message that providing and receiving feedback does not need to extend beyond these conversations despite there being pockets of excellence across the Navy practicing asking, giving, and receiving feedback effectively. Sailors reported feeling disengaged from leadership, a lack of guidance on their personal development, and ambiguous guidance on the feedback process during their evaluation cycles. In response, the Navy wants to engage in a culture renovation rather than simply adding a new program or great idea. They want to change the means of how talent management practices are executed.

The first phase in this response was to gain a better understanding at the individual level. More than 13,000 Sailors responded to 10 questions as part of the Personal and Professional Choices Survey asking about their views of current Mid-term Counseling practices and processes. The findings aligned with the aforementioned gap. Sailors wanted more clarity on Mid-term Counseling goals and reported a need for improved feedback as well as guidance for follow-on

development. The MyNavy Coaching Initiative naturally fills this gap between getting feedback and turning it into developmental goals. With MyNavy Coaching, a coaching culture will be created by which Sailors practice being more coach-like, helping to define, guide, and provide a pathway for personal and adaptable leadership development support throughout the Sailor's career. Ultimately, the intent is to move Sailors out of receive-only mode and into becoming a partner in their own development. It is expected that honing leadership skills in individual Sailors while they are simultaneously gaining coach-like attributes will pay dividends as they are shaped into leaders. Providing personal growth and career opportunities that support change but also create agents of that change will not only help enrich themselves and their teams at the unit level but also help the Navy at the organizational level by sustaining these practices into a renovated leadership culture.

Organic growth of leadership allows Sailors to feel more engagement, ownership, and accountability of their personal development and enriches Navy talent management by improving their retention. MyNavy Coaching is an investment in the talents of Sailors through this deliberate and organic development of their skills, capabilities, and leadership. This helps to ensure the Navy retains its warfighting overmatch against near-peer competitors.

Culture Renovation: Defining Structure, Providing Resources, and Supporting Individuals

Structure

The deliberate focus on the development of the Sailor is not a new idea, but additionally focusing on how to sustain it is an added element not previously included. Thus, it was necessary to pilot the design. More than 400 Sailors across 12 diverse platforms were involved in the program (Harris, 2021). Findings suggest that Sailors recognized the value in the shift from standard mentor- or evaluation-style questions, which are often closed-ended questions requiring a simple "yes" or "no" response, to a more coach-like approach where they are asked open-ended questions that engage them and help drive their development. Specific benefits in this structure predominately center on the action-oriented nature of the activities. The subtle difference is that mentoring often teaches through personal context or experience whereas coaching is about empowering individuals by asking powerful, open-ended questions, creating new learning and motivating the coaching partner to invest in her personal and professional development (Lowisz, 2019).

After this series of pilots, the MyNavy Coaching team continued to hone the curriculum in response to the feedback from participants. They then focused on creating a concept of operations and a series of briefs for Flag-level leadership outlining the implementation plan for creating a coaching culture using MyNavy Coaching in every Sailor's career – enlisted and officer. The final structure design of MyNavy Coaching is planned for implementation in FY22 at Recruit Training Command (RTC) in Great Lakes, Illinois, as well as replacing a senior leader course at the Naval Leadership and Ethics Center (NLEC).

Resources

Recognizing the impacts that this can have on the development of the individual Sailor and the benefit to their organizations as well as to the Navy, the MyNavy Coaching team laid out for leadership the resources required to replicate and sustain the training across the Navy. Put simply, any Sailor can become part of MyNavy Coaching by beginning to use coach-like attributes such as active listening, empathy, and asking open-ended questions. However, sustainability involves more than the teaching of these skills. Rather, the training needs to continue through the senior enlisted and officer leadership to ensure that these coach-like attributes continue to be used once Sailors leave their respective training commands. Thus, the primary resources needed include set-aside *time* for continual coaching, *methods and clarity* for how to develop in each of the key areas tied to the Navy's 21st century skills, and *financial resources* for supplementary education and training that promote personal learning and development goals. Funding the design, creation, piloting, and even implementation is not enough. Sustainment costs and actions need to be clarified at the outset, and funding, time, and capability resources need to be recognized and included in the initial plans.

Individual Impact

Sailor development is an essential and integrated component of Navy culture. MyNavy Coaching will foster several benefits to the Sailor, and ultimately, to the Navy at-large. This includes creating and institutionalizing a culture focused on Sailor-driven personal and professional development leading to overall performance improvement at the

individual, unit, and fleet levels. Renovating a culture is not simply implementing “another new program”. Recall that culture renovation is about minor changes (Oakes, 2021), but instilled practices, habits, and behaviors would need to be changed to allow MyNavy Coaching to grow. This involves creating the conditions to support Sailor development and life-long learning, resulting in growth for every member of the Navy, building meaningful work and relationships, and enhancing overall performance. MyNavy Coaching will serve as a bridge to take development and translate it into learning, knowledge, skill development, confidence, and increased performance that will one day be inclusive to all developmental and feedback conversations.

SUMMARY

The atrophy of enthusiasm at new technologies, innovations, and improvements begins as soon as the implementation or intervention occurs. For true success, customers must not only be fervent in their reception of the change but further, be committed to the transformation of their forces in order to see it through to sustainment. Without this dedicated and deliberate practice and focus on maintaining momentum, standards slide, and standardization can be lost. Knowledge may be retained but practiced in a vacuum. Organizations will need to adopt change as constant and be prepared to manage themselves, their organizations, and cultures as such.

The ROI for the MS&T Industry

Particular to the MS&T industry, it is moving forward at an increased pace, and this does wonders to improve and enhance our nation’s defense. But the industry needs to be considerate though that no matter how fast technologies improve or move forward, there is always going to be a human-in-the-loop (HITL) for whom support will be needed to ensure good R&D does not go to waste and instead, they become drivers for sustainment. There is a fine line between creating an environment in which the organization or customer relies continually and perpetually on the vendor and one in which it becomes a shared partnership to face challenges and get over the tipping point to sustainment. Additionally, it is important to note that the HITL may not be at the operational controls of the effort but may be the stakeholder determining what resources are available to implement or even procure the change. The HITL may be the policy writer who needs to understand the value of the intervention in order to open policy doors that can allow for the opportunity to move forward with the effort. The HITL could be the instructional systems designer (ISD) who needs to update the course content to teach members and teams how to train with the item. The HITL may be the CO/OpsO/TrgO who needs to write it into the plan. Or the HITL can be the Senior Chief or Gunnery Sergeant or Master Sergeant who is leading the change and creating a momentum shift in their teams to adapt to the innovation, gain expertise, and handle issues as they arise and in turn, pass it on to those who take their place to ensure that a chance for sustainability exists.

Thus, preparing leaders and team members alike to adapt to change, thrive in change, and grow from it is necessary. Organizations must be aware of hurdles to sustainment and work to plan against them. Managing the talent within the organizations can be a great head start to prepare for change and the MyNavy Coaching Initiative serves as an exemplar to demonstrate where a demand signal led to an intervention and one that is committed to preparing leaders to be agents of change. It provides a framework that improves likelihood of sustainment by creating a coaching culture where leaders and members share the responsibility for growth and development in a direction that is desired and leads to mission success.

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