Implementing Agile for Training Development to Support Rapid Capability Deployment

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ABSTRACT

In 2017, the U.S. Fleet Forces Command publicized the Ready Relevant Learning (RRL) pillar of Sailor 2025 to fully prepare sailors for warfighting in an age of accelerated technological capability changes. This Navy-wide push for practical updates provided essential strategic guidance within traditional government acquisitions and training communities to account for the constantly evolving overlap of training requirements and original equipment manufacturer capabilities.

Frequent technical capability updates often evolve in parallel to the development of modern performance support system requirements. Systemic solutions that encourage and support course-correction to meet development needs have proven to be of enduring interest to the Navy and are critical to satisfying RRL initiatives. Training development and performance support teams have come to rely heavily on the integration of project planning and tailored Agile frameworks to meet rapid pivots between project cycles and to provide content updates and release cycles at deployment.

This paper will illustrate how use of tailored Agile processes has allowed the ePerformance Solutions Team to align training systems with systems engineering development to ensure instructional content is accessible, supports mission readiness, and complies with Navy guidance. The associated case studies will also expand on lessons learned in implementing Agile frameworks concurrent with hardware and software development. Through effective implementation of tailored Agile, teams can ensure the warfighter has access to the right training, at the right time.

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ALIGNING TRAINING SYSTEM DEVELOPMENT WITH TACTICAL SYSTEM DEPLOYMENT

Tailored application of Agile processes has been critical to the modernization of both Naval instruction and its design. Historically, Fleet training relied on paper-based technical manuals and PowerPoint-presentation-based instruction presented in schoolhouse settings. When Naval leadership sought a modernized continuum of intermediate- to expert-level training across a wider range of career paths, they quickly found that efforts to update training proved expensive and logistically challenging (USFFC, 2017). The restrictive structure of traditional government waterfall frameworks was unable to account for the rapid cycle of frequent systems engineering updates and tactical system deployment intervals inherent to this type of training development (DAU, 2017, 6-3.4.3).

To meet these challenges, the U.S. Fleet Forces Command released the Sailor 2025 initiatives which would act as a functional roadmap coordinating Navy-wide updates to existing personnel programs; it also promoted a Navy-wide policy overhaul called Ready Relevant Learning (RRL). RRL focuses specifically on the logistics of modernizing skill development efforts to accelerate learning, minimize atrophy, and provide on-the-job training performance support through relevant emerging technologies across multiple platforms (Naval Education & Training Command, n.d.).

RRL opened the way for instructional design teams to adopt Agile practices to meet the varying requirements inherent to Naval training development. One exciting instructional innovation that is possible because of the RRL initiative is a simulator called the Flight Deck Crew Refresher Training Expansion Pack (TEP). Using Agile principles, the Office of Naval Research and Naval Air Warfare Center Training Systems Division have created a series of local training simulators that employ game-based, immersive 3D technology to keep flight deck teams current on procedures (Cummings, 2019). “Previously, flight deck crews could only train while on the job. TEP gives them the potential to practice anywhere… TEP is now part of Ready Relevant Learning for use at Center for Naval Aviation Technical Training A-Schools” (NewsRx LLC, 2021). Future applications of the TEP may expand alongside platform growth (USNavyResearch, 2018).

The contents of this paper explore tailored Agile approaches to meet Naval training needs, providing both support for RRL initiatives and cost/time savings during and after development. This is explored through the lens of four case studies, each describing pain points to training development and mitigation practices utilizing tailored Agile. The case studies discuss constantly shifting systems’ engineering requirements, concurrent training and system development, “day one” deployment needs, and training and tool development within strict and evolving cybersecurity environments/requirements.

Agile Methods & Naval Training Development Needs

The Navy is determined to advance individual skill progression for Sailors. To meet this goal, it is essential that critical on-the-job training and career development tools be created and updated quickly within federal contract budgets and timelines (USFFC, 2017).

Agile serves as a pragmatic amalgamation of methods that is allowing training support teams working within government funding timelines to produce output that is immediately useable (GAO, 2012, p. 65). Instructional systems designers (ISDs) supporting Naval training efforts are empowered by the adoption of tailored Agile processes to gather content and technical, platform requirements throughout a project’s lifecycle alongside traditional siloes. Instead of becoming trapped in data gathering efforts or strict hierarchies, development and support teams for Naval training can

now "Agilely" customize development processes to ensure the end-product meets evolving end goal states as the need arises (DAU, 2021, p. 2). This versatility is critical because the overlap of requirements when creating instructional courseware for the Navy is complex.

Development teams must strictly adhere to budgetary and security criteria (GAO, 2020, p. 9). When designing training elements for an end-product, ISDs must account for the strengths and limitations of the chosen hosting medium as well as the limitations of the associated platform(s). For example, a product intended to be used at sea will have different technical limitations than one that has the full array of resources available in the schoolhouses. There are also internal development process requirements to account for. Integrating Agile tools into development processes allows internal support structures to grow and adapt with the training (GAO, 2020, p. 9). Processes can be adapted as lessons are learned and pain points are identified.

Another key component that must be accounted for in Naval ISD is the impact of engineering lifecycles. Technology advances and capability enhancements do not stop while training tools for an existing system are in development. Tactical systems engineering programs must leverage iterative development processes for system production, and the training development team must follow suit. As tactical systems are completed, the training team can feed updated requirements from that testing cycle into the production pipeline for development. In this way, the training team is able to track and re-prioritize the project's backlog as needed. This approach, in conjunction with other Agile characteristics, ensures that training solutions are aligned with their respective systems; it also provides sponsors frequent opportunities to iteratively review and update training materials. Frequent customer feedback and review cycles ensure ongoing touchpoints through which ISDs can gauge how well the product meets customer expectations, while soliciting the status of or updates to critical data that can allow the team to gauge the trajectory of requirements.

Once feedback has been received, the training development team is then empowered to produce deployable iterations and pivot schedules to address emergent needs, new requirements, and/or account for delays and impediments. Agile methods also bolster functional support efforts to create and enhance content by emphasizing "early delivery and regular feedback, [which] results in a much higher quality product from the perspective of accuracy and relevance of training content" (Cooney & Little, 2015, p. 5).

Schoolhouse Instruction Defines Training Needs

It is important to note that RRL does not define ISD or technical requirements during the creation of training tools (USFFC, 2017). Rather, it is the responsibility of program offices to decide how to best implement RRL guidance into product requirements for designated training materials. While program offices navigate the logistics of data gathering for training, ISD performance support focuses on creating innovative career development and rate training tools for active-duty Sailors.

ISD performance support experts recognize that performance support tools are defined by user needs. For Naval training, "user needs" are generally shaped by career development and rate training for active-duty Sailors. Training maintenance comes into play because training requirements must be updated whenever there are enhancements to system's design, data collection procedures, deployment options, and even technology and security protocols. There is an overlap in needs across these access points. Training development must account for frequent content updates as technology evolves and operational users submit requests. Data analytics must be tracked to maintain and refine development processes. This tracking also acts as a critical means of identifying and adapting to skill decay. The USFF (2017) explains that a newly trained recruit may not use the full scope of their training until they are three to five years into their career. As a result, no less than $400 million are accrued in losses due to inefficiencies in training processes (USFF as cited by Mead et al., 2020). Effective virtual training tools created for system and equipment maintenance go a long way towards increasing return on investment for both the Sailor and the national budget by bringing training to the job location.

Training support stakeholders on the government-end are seeking rapid, cost-effective alternatives to waterfall development as well, but Program Office affairs are complex and overlapping (DAU, 2021, 6-3.5.5). Although true Agile demands active adoption of Agile processes *in place of* existing systems, this approach isn't feasible in federal training spaces where rapid change is exceedingly difficult. Progress with Agile has been cautious and siloed out of necessity to ensure stakeholders and associated support teams are adapting their processes in tandem within the

associated array of budgetary and security restrictions (GAO, 2012, pp. 15-21). It is a testimony to the adaptability of Agile methodology that careful integration of Agile processes has made this shift viable at all.

AGILE TOOLS FOR AGILE PRODUCTS

Tailoring instructional development models "Agilely" allows training development teams to establish avenues for incremental creation, development and preferred distribution of contracted courseware. Agile Spirals and backlogs can be latticed into processes such as: Software Lifecycle Development (SDLC); the cyclical data gathering and quality assurance checks of Successive Approximation Model (SAM); and Planning, Analysis, Design, Development, Implementation, Evaluation, and Maintenance (PADDIE+M), a standard and scalable Naval Education and Training Command framework supporting iterative development cycles (ref. NAVEDTRA 136). Positive outcomes of using Agile for the end-user include first deployment access to a working, upgradeable product; a clear and traceable assessment of a project's cost and iterative value; and cooperative quality produced over the course of a project's lifecycle which can help to minimize end-review disagreements (DAU, 2021, 6-3.4.3).

Each case study presented in this paper highlights how one training development team has tailored Agile processes to adapt to individual projects and sponsor needs. The first case study focuses on the ARC-210 project which has relied heavily on tailored Agile to address a turbulent overlap of systems requirements and rapid capability deployment. The second study highlights the challenges incumbent to rapid engineering of new systems, as well as adaptations of Agile that have been implemented to ensure day one deployment of respective training materials. The final case studies present in-house applications of Agile processes to adapt internal tools and procedures to meet specific project and cybersecurity criteria. These case studies are intended to illustrate best practices in customer and project management for optimal return on investment.

Case Study 1: ARC-210 Interactive Courseware, The Overlap of Training Development & Systems Engineering Requirements

Successful development of Naval training systems assumes that support efforts will effectively meet customer, end user, and mission needs. For the ARC-210 project, successful ISD requires constant adaptation in coordination with Program Management Activity (PMA) to support both rapid capability deployment and evolving engineering requirements alongside the necessary and continuous enhancement of learning design processes. PMA-209 provides ongoing capability, software, and hardware upgrades of the AN/ARC-210 radio set across an endless number of platforms. The training development team develops and maintains a set of training products and supplemental media to support NAVAIR PMA-209 Air Combat Electronics through content and interactive courseware (ICW) development, solution deployment, and Fleet technical support for the radio set and ancillary equipment. Figure 1 shows one iteration of the resultant courseware as it would appear on its learning management system (LMS).

Figure 1: ARC-210 ICW

From very early in the ARC-210's project lifecycle, the overlap of software and hardware requirements became a critical hurdle in meeting project deadlines. Updates to the radio set and associated components were frequent and ongoing, and shifting systems engineering requirements from the original equipment manufacturer needed to be accounted for throughout the project's development. How can the training development team create instructionally sound and accurate training materials when several months, weeks, or days later, the information is outdated and irrelevant? Without Agile planning processes, there would have been significant negative impact on the ICW's budget, performance mishaps resulting in system downtime, and costly fixes due to lack of performance support/training.

Another factor that must be accounted for is the constant shifting of engineering hardware and software deployment dates. Engineering timelines are dependent on National Security Agency / Department of the Navy Application and Database Management System approval. These agencies are beholden to policy and other external variables that introduce unknowns to the schedule. For this and other reasons, a project like ARC-210 is unable to rely on the traditional Analysis, Design, Development, Implementation, and Evaluation (ADDIE). ADDIE is often referred to as a "waterfall model" in that each step is dependent upon completion of the previous phase (Allen, Merrill, 2003, 2012, 2013, p. 32-33).

For ARC-210, the training development team prefers to draw from ADDIE's emphasis on analysis and planning in congruence with the tenants of Successive Approximation Model (SAM) to create a tailored A+SAM approach. SAM focuses on collaboration, rapid design, and continuous testing with various states of design and development running simultaneously (Allen et al 2012, 2013, p. 43). Application of SAM provides the ARC-210 project with both strong optics and ample opportunity to course-correct without starting from scratch. Strong optics on all elements of the product and concurrent work in all phases of development allows for rapid prototyping (Pappas, 2021). Furthermore, although ADDIE schedules can be shifted to absorb developing customer needs, for a project like the ARC-210 ICW, this would rapidly overwhelm both the budget and schedule (scope creep). SAM's tighter feedback loops ensure that pivots and transitions from feedback can occur sooner, at less cost.

Another recurrent issue for teams reliant on pure ADDIE lies in the distance between the ISD teams and stakeholder involvement. Program Office involvement ensures the training support team can effectively prioritize program preferences and manage updates to technical content across chosen distribution channels. Luckily, Agile backlog maintenance meetings encourage establishment of both internal and external communication channels early in the project, before each Sprint, and through to release. This communication chain became critical to success in early 2020, when the PMA-209 received a notification that changed the most high-level of project requirements - the training deployment platform.

Prior to March 2020, learners most accessed the ARC-210 ICW via the Navy eLearning LMS. Then a new Naval Education and Training Command requirement indicated that a new LMS was to replace Navy eLearning at a date to be determined in 2021. The new LMS was to operate in a Federal Risk and Authorization Management Program certified environment rated for hosting Department of Defense (DoD) Impact Level 2 data. As a result, the Navy eLearning LMS would no longer be able to host the higher-classified ARC-210 training content.

The training development team immediately engaged in efforts to identify an LMS rated for hosting Controlled Unclassified Information (CUI) content and capable of meeting PMA-209's security, classification, interactivity, and access requirements. Joint Knowledge Online was identified as a possible solution for LMS migration. Joint Knowledge Online is a Sharable Content Object Reference Model (SCORM)-conformant government-off-the-shelf web-based LMS that delivers web-based access for both classified and unclassified DoD content.

To gauge hosting suitability, the training development team treated this investigative and ultimately migratory effort as an Agile training systems maintenance project, executing the work iteratively with frequent touchpoints to both the PMA-209 sponsor and the LMS development teams. A gap analysis was conducted to assess Joint Knowledge Online suitability as a client solution, presenting outcome analyses for stakeholder evaluation. Because of the Agile practices in place prior to this transition, the team was able to adapt quickly, providing a recommended roadmap for project stakeholders based on careful requirements analysis and testing efforts. This was accepted by both the PMA and LMS, and a calculated and fluid migration of all ARC-210 ICW was finalized within twelve months of original notification. The ongoing evolution of solution sets, technological capabilities, and hardware/software and subsequent training

requirements continues to require frequent content updates to ensure RRL priorities remain intact, but the versatility of an Agile approach continues to make that a manageable and sustainable task.

Case Study 2: Civil Support Team Assistant, Day One Training Release & Training Readiness Aligned to Tactical System Deployment

Tailored Agile systems development also enables teams to provide training and capability sets ready for use at or before new system deployment. This is critical when building training products for tactical systems, such as those provided by the Consequence Management Communications Systems (CMCS) program.

CMCS is a rapid engineering program that develops cutting-edge communications systems for National Guard Weapons of Mass Destruction Civil Support Teams (CST). They also create and maintain training associated with these systems to ensure that the CST user community can effectively utilize program-sustained equipment.

Development of this training is cyclical and ongoing. New systems must be accounted for, expansions in use cases must be updated, and upgrades to cybersecurity must be addressed. CST members often work part-time and require both new equipment training and ongoing refresher training to stay abreast of the capability set. It is also important to note that capabilities for in-production systems are often not finalized until just a few weeks prior to the equipment's deployment, as engineering teams need to test new equipment or systems throughout the development cycle in addition to complete system testing before deployment.

Initially, CMCS sponsored the development of a performance support tool accessible to users out in the field that could also be employed in classroom training by the instructors. To develop the training around the compressed schedule and iterative nature of the engineering process required careful tailoring of Agile alongside other practices. For context, the final ICW focuses on critical operation and maintenance procedures. It also generates updated technical content and is accessible through computer and government-issued mobile devices (see Figure 2).

Figure 2. CST Assistant ICW – Desktop Mode

A hybrid of Agile and SDLC practices have been used to develop and sustain CST Assistant and have helped ensure the team is able to offer training materials before or at day one tactical systems deployment. This allows the project's ISD team to develop the training as the engineers are developing their systems.

Before each development cycle begins, the training development team hosts an Agile backlog review ceremony with the CMCS product owner who determines what must be prioritized over the course of the upcoming Spiral and to ensure associated funding is in place to meet the requirements. A large amount of change must be accounted for over the course of each six- to eight-week release cycle. Once development begins, the ISD team starts at the top of the

backlog list, addressing tasks in the order the program approved and prioritized it. This approach ensures that the program will have a functioning product as planned if, say, there was a halt in funding or if the CMCS needed to immediate release the training as-is. Both internal and external communication channels need to be established early in the Spiral, and weekly stand-up meetings are maintained through to release. This ensures that each time a capability set and associated training material changes over the course of the Spiral, the ISD team is able to coordinate with the program's subject matter experts. During each Spiral, training material is developed and enhanced over the course of recurring two- to three-week Sprints. This iterative timeline helps the team gather and incorporate all updates accurately.

By the time CMCS is ready to deliver the new equipment, the CST Assistant is updated and ready to meet the training need. Having up-to-date and effective tactical systems training distributable to the point of need and available on the day of release has helped the CMCS program minimize risk to personnel and property as well as enable mission readiness, while supplying a practical cost savings for the program.

It should also be noted that Agile backlog preparation allows teams to plan for and put mechanisms in place prior to the introduction of an official project requirement. CMCS is routinely provided a rough estimate, on a yearly basis, of what is needed for training sustainment, as well as designate an additional catch-all funding bucket to provide room for further capability and functionality. This is necessary in government training spaces because it can be difficult to get approval for funding to create these enhancements at a later date.

Case Study 3: Authoring Tools, Home-Grown Agile Towards Tailored Learning Solutions

In the late 1970s, the DoD began to look into alternative ways to produce training manuals. With the introduction of computer technology, it was theorized that converting technical manuals to an electronic format would ensure a cost savings, allow better integration with other logistics systems, and extend usability of the technical material (Schatz et al., 2015). These goals are made a reality through Print and Publish tools like Integrated Production Reporting and Enhanced Print Publishing (IPREPP). For this team, IPREPP exists as an authoring tool, software solution, and an internal project, and in each iteration, it has bolstered inter-team Agile processes.

The IPREPP tool absorbs content from print technical manuals and converts it into standard desktop applications such as ICW, computer-based training (CBT), and interactive electronic technical manual (IETM) solutions. The tool is incorporated into the courseware via a navigation element within the hosted environment. This government-off-the-shelf product acts a plug-in, recollecting key information from the CBT and printing it back out again as a PDF. This feature allows users to publish standardized updates through local printed material using the CBT, ICW, our Interactive Electronic Technical Manual (IETM). IPREPP also allows technicians and engineers to print context-specific sections for use in the field where electronic platforms may limited or inaccessible.

As an example, an ICW with IPREPP functionality is able to generate updated technical content. A single data source acts as a force multiplier, ingesting technical content, troubleshooting trees, and media and requires minimal manual input during the authoring process. Resultant changes are reflected in the output and can be exported as individual topics or, if requested, as a full republish of the updated technical manual. This allows both the end user and program office to rely on updates to the courseware for generating technical content and PDF student guides.

Sponsors periodically request print capabilities specific to their end users' needs; for example, the ability to print a manual without pictures to conserve space or to condense instruction so that it might be printed on a 5x7 index card. Features sets designed for one project could be potentially used for another and the capability remains part of the overall knowledge pool; however, capabilities for one IETM may not be automatically scalable to another due to variations in security requirements. An Agile release train, or assembly line, of feature integration will be required to scale capabilities across projects. This has led to the evolution of IPREPP as an in-house project.

The IPREPP project evolves through Agile sprints. The developer team utilizes a backlog that they reassess and refine with each sprint. This allows the ISD team to continuously track, review and prioritize requirements pertaining to tools across projects for NAWCAD WOLF sponsors. Through the backlog, new print features can be pulled and tested in the next project sprint, at which point they can be tailored to meet the sponsor's needs. Furthermore, to facilitate full functionality, the training development team has hybridized several key Agile methodologies including a Lot Like Agile Management Approach (LLAMA) and Scaled Agile Framework (SAFe). LLAMA opens lines of

communication between development team and stakeholders while taking into consideration the psychological adoption of new practices.

IPREPP is experimenting with LLAMA with the goal of creating opportunities for knowledge transfer and role switching to reduce bottlenecks in the production pipeline. Previously, functional roles within IPREPP had been naturally siloed by area of expertise, but the project is exploring better ways to automating the process. To reduce internal team turnaround, the development team has been actively cross-training to empower multiple developers to jump in as needed. Cross-training through accessibility will empower developers to not only cover all parts of the process but provide opportunities for continuous learning through shared application of experience and knowledge. LLAMA may also help the IPREPP team manage the overlap of project requirements and delivery dates, and track personnel commitments and resourcing.

SAFe is often used for large scale, lean enterprise solution delivery because of its integration cadence across multiple Agile teams. When successful, SAFe reduces barriers traditionally found in large bureaucratic organizations by mobilizing people's energy and enthusiasm and generating meaning both at work and in work (Denning, 2018). The SAFe approach enables the team to effectively resolve engineering practice requirements. Where implemented, it has also helped the team bridge gaps in both configuration management and versioning of software – in turn helping resolve and prevent prior defects from appearing in future product releases. Each team member is involved and has a significant voice in decisions impacting business patterns. This is helping to establish a feasible cadence of work for predictable delivery points with the goal of allowing the team to better manage the variability inherent in product development. Once the work cadence and process standards are established, the team can automate the mundane and repetitive processes for added performance.

The SAFe approach coupled with LLAMA's learner-centric approach for simultaneously running projects has helped the training development team retain separation of duties across silos through tailored Agile processes. It also supports an adaptable and more harmonious delivery cadence, enabling active collaboration and communication across the team. Once that cadence is firmly in place, the formation of a truly Agile release train and solution train can begin to take shape. Automation of the more mundane aspects of the process should allow learning design teams and developers to focus on further innovation of content delivery.

Case Study 4: Applied DevSecOps, Cybersecurity and DoD Compliance

The protection of CUI in nonfederal systems and organizations is of paramount importance to federal agencies and means and demands of that protection can directly impact the ability of the federal government to successfully conduct its essential missions and functions (Ross et al., 2019). The NIST-800-171 guidelines provide agencies with recommended security requirements for protecting the confidentiality of CUI when the information resides in nonfederal systems. The Cybersecurity Maturity Model Certification (CMMC) was published in January 2020; meeting the criteria of this model verifies that contractors have adopted the NIST SP 800-171 framework and are in compliance with essential cybersecurity requirements before a contract is awarded. The CMMC is not a self-certification program; instead, all companies conducting business with the DoD, including subcontractors, must be certified by an independent third-party commercial certification organization (Gamble, 2020).

Agile methods are essential for teams seeking to integrate cybersecurity best practices with software development. There is increased interest in how to ensure secure software development, but initiatives tend to focus on tools, technology and processes without an awareness of the social practices of software development or the relationship between cybersecurity professionals and software developers. Adoption and effective practice of the Navy's DevSecOps culture will remove many of these barriers by allowing the team to fluidly deliver content within the parameters of DoD compliance/security. Cybersecurity is a complex challenge, affected by both social and technical factors; cybersecurity professionals have consistently advocated that security should be 'shifted left' in the software development process so that it is considered early on in a project. The four key components for successful DevSecOps practice encompass culture, automation, sharing and measurement (Ashenden & Ollis, 2020, p. 38).

DevOps and the Continuous Delivery Pipeline (CDP) can allow us to identify operational value streams to meet customer and market demand as needed (Scaled Agile, Inc., 2021). The set of activities that support the products, services, or solutions that the company sells vary, and in the larger enterprise the task can become quite complicated. It involves tracking through various applications, systems, and services across many parts of the distributed

organization to both internal and external customers (Knaster & Leffingwell, 2020). With a move to Agile, continuous integration/continuous delivery, DevOps and DevSecOps, software development cycles become shorter and faster. This shift is allowing the team to evolve our DevSecOps operations by building a culture of understanding of responsibilities for the development, operations, and security realms through review of the NIST800-171, Defense Federal Acquisition Regulation Supplement (DFARS), and CMMC literature. As the understanding of these documents increases, close collaboration with our security expert team can begin removing psychological boundaries and transitioning security engineering into the requirements gathering and design phases of the SDLC. In other words, collaboration with the Security team is shifted left in the release train; this supports teams as they manage for multiple deliveries through varying milestone intervals (see Figure 3).

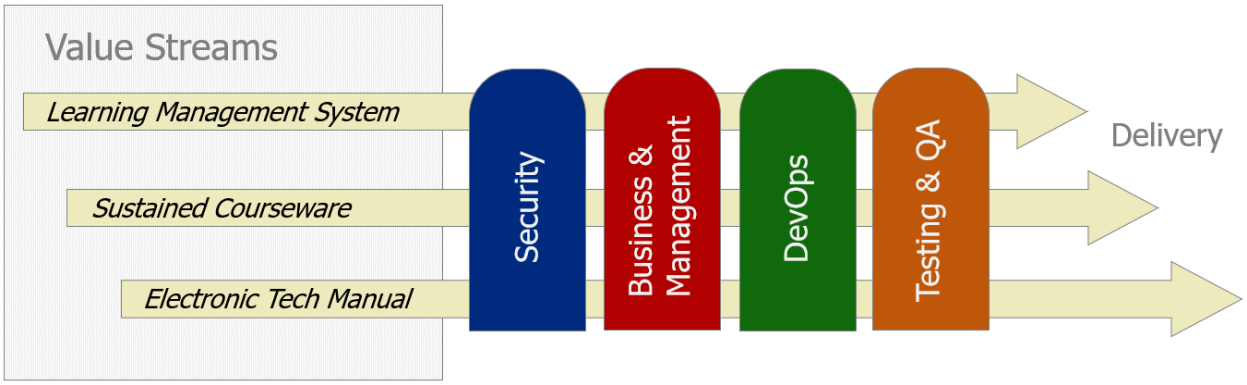

Figure 3. Release Train

NEXT STEPS & CONCLUSION

Standing firmly at the intersection of instructional design and technology, the Sailor 2025 and RRL acted as a catalyst for the evolution of Fleet training, forging stellar development approaches across emergent technologies in a unified, tailorable spectrum of learning, and offering relevancy and personalization to the range of curriculum offerings by the U.S. Navy. The RRL initiative has allowed the government to commission rapid affordable turnaround on critical performance support, while implementation of Agile in performance support processes enables training development teams to meet customer needs for training quickly, affordably and sustainably.

The case studies discussed in this paper are concrete examples of project, sponsor, and end-user-specific tailored Agile processes that have been implemented to meet contract requirements as well as provide high quality training to the warfighter at the time of need. The authorship proposes that the next step to supporting training development teams in their pursuit to provide day-one, high quality training products is empirical research. The cross-industry benefits of open peer discussion on how teams and projects tailor Agile development would have an exponentially positive impact on project management activities at and after project kickoff. *Why* teams tailor Agile and the benefits of doing so are clear. *How* teams do this remains lightly discussed and published. Further gathering of quantitative data is the logical next step to define what works, when, and why. Additional case studies and use of control groups (using other project management methodologies and workflows) will help baseline deltas in tailored Agile, supply critical research to assess alongside alternative industry approaches and outcome differentiators, and help pave the way for clear implementation guidance and documentation to add to the existing body of knowledge.

There is more to discover in the name of implementing Agile for training development to support rapid capability deployment, but the authorship also proposes a key takeaway: Agile provides effective tools for adaptability even in the most turbulent environments and boasts methodology that allows teams to simultaneously learn from change and course correct as needed. It is a prime candidate for tailoring and customization to provide heightened flexibility to support teams in their mission to support the warfighter.

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