

Life and Leadership Skills in Support of the Navy's Culture of Excellence

Peggy Golfin, Patty Kannapel, Tom Geraghty, and Heather Wolters

DISTRIBUTION STATEMENT A. Approved for public release: distribution unlimited.

Abstract

This CNA study supports the Navy's Culture of Excellence by identifying key leadership and life skills in sailors' careers, important touchpoints in the behavior learning continuum ranging from recruitment to transition when these skills should be acquired and reinforced, and the appropriate sequence, frequency, and content for the identified skills at each touchpoint. We identified 18 life skills based on our literature review of skills that have been determined to be essential to provide people with the nontechnical skills they need to be productive, happy, healthy contributing members of society and the organizations they serve. We supplemented what we had learned from the literature review regarding touchpoints and frequency with discussions with 26 subject matter experts across the Navy. We conclude that initial training on all life skills should occur during the accession phase. Determining which skills should be refreshed or enhanced at each touchpoint depends on the assessed skill level of the sailor at that touchpoint and other characteristics of the sailors, such as family status.

This document contains the best opinion of CNA at the time of issue.

It does not necessarily represent the opinion of the sponsor

Distribution

DISTRIBUTION STATEMENT A. Approved for public release: distribution unlimited.

Specific Authority. To protect information not specifically included in the above reasons and discussions but which requires protection in accordance with valid documented authority such as Executive Orders, classification guidelines, DoD or DoD-component regulatory documents.

9/15/2021

This work was performed under Federal Government Contract No. N00014-16-D-5003.

Approved by:

September 2021

A handwritten signature in black ink, reading "Jeffery Peterson". The signature is fluid and cursive, with the first name "Jeffery" and last name "Peterson" clearly distinguishable.

Jeffery Peterson, Director
Navy Manning, Education, and Training Program
Resources and Force Readiness Division

Request additional copies of this document through inquiries@cna.org.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) September 2021		2. REPORT TYPE 1Rev		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE Life and Leadership Skills in Support of the Navy's Culture of Excellence				5a. CONTRACT NUMBER N00014-16-D-5003	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER 0605154N	
6. AUTHOR(S) Peggy Golfin, Patty Kannapel, Tom Geraghty, Heather Wolters				5d. PROJECT NUMBER R0148	
				5e. TASK NUMBER D622.00	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Center for Naval Analyses 3003 Washington Blvd Arlington, VA 22201				8. PERFORMING ORGANIZATION REPORT NUMBER DRM-2019-U-022421-1Rev	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Director 21 st Century Sailor Office (N17) 5720 Integrity Drive Millington, TN 28050				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT DISTRIBUTION STATEMENT A. Approved for Public Release; distribution unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This CNA study supports the Navy's Culture of Excellence by identifying key leadership and life skills in sailors' careers, important touchpoints in the behavior learning continuum ranging from recruitment to transition when these skills should be acquired and reinforced, and the appropriate sequence, frequency, and content for the identified skills at each touchpoint. We identified 18 life skills based on our literature review of skills that have been determined to be essential to provide people with the nontechnical skills they need to be productive, happy, healthy contributing members of society and the organizations they serve. We supplemented what we had learned from the literature review regarding touchpoints and frequency with discussions with 26 subject matter experts across the Navy. We conclude that initial training on all life skills should occur during the accession phase. Determining which skills should be refreshed or enhanced at each touchpoint depends on the assessed skill level of the sailor at that touchpoint and other characteristics of the sailors, such as family status.					
15. SUBJECT TERMS Culture of excellence, Life Skills, Touchpoints					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Knowledge Center/Dana Smith
U	U	U	SAR	114	19b. TELEPHONE NUMBER (include area code) 703-824-2123

Executive Summary

The Navy has been developing and implementing a Culture of Excellence (COE) to improve the readiness and capability of individual Sailors and, by extension, the Navy as a whole. The goal is to move from a culture of compliance to a culture that ensures a safer and more combat-effective force that prioritizes personnel safety, readiness, and training [1-3]. This project supports N17's COE by identifying the following:

- Key leadership and life skills in Sailors' careers
- Important touchpoints in the behavior learning continuum (BLC) from recruitment to transition when these skills should be acquired and reinforced
- The appropriate sequence, frequency, and content for the identified skills at each touchpoint

Methodology and results

We reviewed literature pertaining to skills that have been determined to be essential to provide people with the nontechnical skills they need to be productive, resilient, healthy contributing members of society and the organizations they serve. In terms of the Navy's Primary Prevention Logic Model [4], these skills promote signature behaviors (SBs) and prevent destructive behaviors (DBs).

Our exhaustive review of the literature on life skills and leadership led us to conclude that effective leaders require solid foundational life skills. The leadership continuum consists of a progression from individuals obtaining and enhancing life skills for themselves (me) to enhancing and applying them to the organization (us). The "us" becomes an increasingly larger number of people over whom leaders have responsibility. In this construct, the leadership continuum does not require a different set of skills but rather the application of life skills to an increasingly larger number of people over whom an individual has responsibility.

We found significant agreement in the literature on the most important life skills and, by extension, leadership skills. We selected what we consider the most important of these skills, using the guidance that they fit our definition of a skill¹ and that they help to promote SBs and

¹ We define *skills* as proficiencies learned or acquired through training or practice. Skills are different from *knowledge*, which we define as a body of information required to perform a task.

reduce DBs. We selected the following skills: (1) critical thinking, (2) problem-solving/decision-making, (3) planning and organizing, (4) self-awareness, (5) self-efficacy, (6) self-regulation, (7) self-direction/initiative, (8) perseverance, (9) positive thinking, (10) integrity, (11) personal responsibility, (12) empathy/perspective taking, (13) flexibility/adaptability, (14) appreciation for and embracing diversity, (15) communication, (16) teamwork/collaboration, (17) healthy relationships, and (18) conflict resolution.

We also identified a number of touchpoints at which these skills should be learned, refreshed, or enhanced, and we categorized them as either universal or variable. Universal touchpoints are transition points or events that are experienced by the majority of all Sailors; they are periods in which Sailors will require initial, refresher, or enhanced skill training. Much of the refresher or enhanced training is needed because the event is potentially stressful or requires significant planning and decision-making. Other touchpoints are events in which Sailors are already given some formal or informal training, which affords an excellent opportunity to refresh or enhance skills that are the most relevant for that phase of Sailors' careers.

Variable touchpoints will be experienced by fewer Sailors or by many Sailors but at varied times or less frequently than universal touchpoints. These include both career and personal touchpoints that can be anticipated, such as marriage and the birth or adoption of a child. Other variable touchpoints may be unanticipated and individual, such as loss (e.g., financial, personal, relationship) or a mental or physical health problem (e.g., depression or anxiety diagnoses, chronic or acute health diagnoses). We supplemented what we had learned from the literature review regarding touchpoints and frequency with discussions with 26 subject matter experts (SMEs) across the Navy. They confirmed our list of life and leadership skills, and provided us with valuable insight regarding a number of touchpoints and the timing of life and leadership skill training.

To address the task of content, we scanned the internet for curricula pertaining to these skills that were available from academic institutions or from research organizations. Specifically, we noted competencies, which we refer to as component skills, for each of these macro skills.

We then searched the literature for information regarding the frequency of life skill training and concluded that there is scant research on how specific skills should be taught and reinforced. The literature on skill acquisition and learning decay (more broadly), however, is consistent in the finding that skill acquisition is not a one-time event; it takes time, and life skills need to be refreshed and reinforced periodically, including opportunities for practice and feedback. A more challenging question is the frequency and nature of life skill training and reinforcement that individuals need to address more personalized circumstances. For instance, Sailors who enter the Navy with a background that makes them more prone to DBs (e.g., adverse childhood experiences, misdemeanors) and less likely to have developed needed life skills may need more intense and frequent training and reinforcement. Personalizing

training for these scenarios would require a method of assessing individual Sailors' life skill deficits and needs.

We then provided a notional framework within which the Navy could determine which skills should be taught, refreshed, or enhanced at each touchpoint. The framework requires placing each touchpoint into a category, based on the predominant characteristic of that touchpoint. We defined six categories: (1) demanding work, (2) change or unknown circumstances, (3) decision point, (4) increasing leadership responsibility, (5) family/personal, and (6) situational. For each category, we identified the skills that could be most helpful to Sailors during that phase of their careers or lives. More work is necessary to determine the challenges and opportunities inherent in each touchpoint and the relevant associated life skills. This effort would require input from a wide array of experts, including psychologists, mental health experts, and other SMEs who are familiar with the types of stressors in each touchpoint and in different communities and environments.

Our review of the literature and discussions with SMEs make it clear that initial training on all life skills should occur during the accession phase. Training new recruits in many of these skills may help to reduce attrition and DBs, so offering them as soon as possible, including during the Delayed Entry Program (DEP), or, if that is not possible, early at Recruit Training Command (RTC), may provide the greatest benefits.

Our other findings include the following:

- Determining which skills should be refreshed or enhanced at each touchpoint also depends on (a) the assessed skill level of the Sailor at that touchpoint and (b) other characteristics of the Sailors, such as family status and previous DBs.
- Refreshing and reinforcing skills do not necessarily require formal training; they could take the form of reminders of the related strategies.
- Navy leaders could benefit by having off-the-shelf curricula to provide training during Sailor 360 sessions or other unit training.
- Numerous opportunities exist to reinforce/refresh these skills. There is likely no need to add more.

Conclusions

This project informs the Navy's application of Ready Relevant Learning (RRL) to life skill training across the Sailor's career. More work is needed to have a scientifically based mapping of skills to touchpoints, to determine which skills will help to promote SBs and minimize DBs under differing assignment conditions and for individuals with various levels of skills and contributing factors (e.g., marital status, family members), and to determine the best method

and frequency for refreshing these skills. Following are some recommendations in support of those efforts:

- Survey a more representative sample of SMEs as well as junior Sailors.
- Review the refined crosswalk against existing curricula to determine the extent to which relevant life skills are already being taught or reinforced at appropriate touchpoints.
- Develop specific strategies for initial instruction on each life skill, including duration, delivery, active learning methods, and micro applications. Experiment with different teaching methods, duration, timing, and frequency and gather sufficient information to determine the best strategy for each skill.
- Develop a repository of resources and best practices for reinforcing each life skill that commanding officers and other leaders may draw on for use during indoctrination, Sailor 360, and other touchpoints.
- Study and pilot methods to gather individual information that would help personalize Sailors' life skill instruction without endangering trust and violating privacy.

Finally, the information provided in this report can support and reinforce a culture of life skill development and use that can ultimately promote SBs throughout a Sailor's career. For this change to become a prevailing ethos, however, Navy culture must support the model. This means that Navy leadership (at all levels) needs to buy into and reinforce the BLC and the development of life and leadership skills. Further, tying incentives (promotion, assignments, and billets) to the development and demonstration of life and leadership skills reinforces the value of those skills. Taken together, the life and leadership skill framework and leadership buy-in and encouragement can help the Navy develop and maintain a culture of excellence.

Contents

Introduction.....	1
Purpose.....	1
Tasks.....	1
Report organization	2
Background.....	3
Life and leadership skill training	3
Study method.....	5
Life and Leadership Skills.....	7
Defining skills.....	7
Difference between skills and related concepts	7
Personality traits	8
Life skills	9
Leadership skills.....	12
Family considerations	12
SME feedback on life and leadership skills.....	13
Life Skill Training Touchpoints	16
Touchpoint insights from SMEs	16
Universal touchpoints	18
Variable touchpoints.....	20
Reserve Component touchpoints.....	21
Skills and touchpoints	22
Process for developing skill and touchpoint crosswalk.....	22
Skill and touchpoint crosswalk.....	26
Frequency and Level of Skill Content	33
Content of life and leadership skills.....	33
Frequency of life skill training	35
Nature and level of skills content	36
Individualizing life skills instruction.....	38
Summary and Future Directions	41
Appendix A: Literature Review of Life Skills.....	43
Rationale for teaching life skills	43
Major life skill frameworks	45
National Research Council framework.....	49

Appendix B: Definitions of Life Skills51

Appendix C: Literature Review of Leadership Skills.....53

 Cognitive domain..... 53

 Intrapersonal domain..... 55

 Interpersonal domain..... 57

 Alignment with Navy leadership frameworks 59

Appendix D: Component Skills.....61

Appendix E: Army Master Resilience Trainer82

Tables88

Abbreviations89

References91

Introduction

Purpose

The Navy has been developing and implementing a Culture of Excellence (COE) to improve the readiness and capability of individual Sailors and, by extension, the Navy as a whole. The goal is to move from a culture of compliance to a culture that ensures a safer, more resilient, and more combat-effective force that prioritizes personnel safety, readiness, and training [1-3].

The 21st Century Sailor Office (N17), which is sponsoring this project, describes the COE as a Navy-wide campaign dedicated to strengthening warfighting and mission effectiveness by developing toughness, trust, and interpersonal connectedness for Sailors, civilians, and family members throughout their time in the Navy [5]. N17's approach to the COE has three primary lines of effort:

1. Leveraging data analytics (LDA)
2. Developing a four-stage behavior learning continuum (BLC): Recruit, Accessions, Maintenance (or Career Continuum), and Transition
3. Implementing evidence-based policies, programs, practices, and processes (P⁴)

The focus of the second line of effort is on tailoring the BLC to offer appropriate life and leadership skill training content at the right time and with sufficient frequency and depth to ensure that Sailors are successful in their Navy careers.

Tasks

The purpose of this project is to support COE efforts by helping identify the following:

1. Key leadership and life skills in Sailors' careers
2. Important touchpoints in the BLC from recruitment to transition when these skills should be acquired and reinforced
3. The appropriate sequence, frequency, and content for the identified skills at each touchpoint

We have also been tasked with identifying potential gaps in data or information that could inform these tasks.

Report organization

We begin with background information, which sets the context for this study, and a description of our study method. The next section describes the life and leadership skills we identified through a review of the literature and discussions with numerous subject matter experts (SMEs) and the study sponsor. We then present the touchpoints we have identified, our findings regarding the frequency of training for the life and leadership skills, and suggested content for each skill. We also address factors that could affect the frequency and/or content of the training. We conclude with a summary of major findings and recommendations for future research.

Background

Life and leadership skill training

The Navy has offered various types of life and leadership skill training for over 20 years. Development of a LifeSkills course began in 1997 when Navy leaders recognized that Sailors reporting to ships often lacked important nontechnical skills that would help them succeed in the Navy. Efforts over the next 15 years led to development of a four-day LifeSkills course, currently taught to all Sailors between bootcamp and A-school, that aims to “provide Sailors with the knowledge and skills to increase personal, family, and operational readiness by recalibrating mental models and assumptions, while building a culture of leadership, respect, professionalism, and trust” [6]. In the core subject areas below, asterisks denote topics required by the Department of Defense (DOD) as part of Common Military Training (CMT) [7]:

- Decision Making
- Bystander Intervention
- Hazing
- Fraternization
- Discrimination
- Sexual Harassment
- Grievance and Redress Procedure
- Sexual Assault*
- Suicide Prevention*
- Navy Core Values
- Healthy Lifestyle (incorporates DOD CMT on Substance Abuse)
- Operational Security (OPSEC)*, including Social Media
- Diversity (aligns with DOD CMT on Military Equal Opportunity)
- Personal Financial Management (PFM)* [8]

The Navy also offers separate courses designed to prevent destructive behaviors (DBs), including courses on managing stress, substance abuse prevention, suicide prevention, sexual harassment, and sexual assault [9].

In addition to recognizing the importance of life skills, the Navy considers leadership development part of the natural progression along the Sailor’s career continuum. For instance, the up-or-out promotion structure and a closed system, in which all promotions are from within, mean that all Navy personnel are expected to take on increasingly greater leadership

roles as they progress through their careers. Also, the defined responsibilities of all commanding officers and those in authority (according to Title 10 United States Code (U.S.C.) § 5947) illustrate that Navy leaders are required to be good examples of virtue and to ensure the virtue of those subordinate to them:

- Set a good example of virtue, honor, patriotism, and subordination.
- Vigilantly inspect the conduct of all persons under their command.
- Guard against and suppress all dissolute and immoral practices, and correct anyone who engages in such practices.
- Take proper measures to promote and safeguard the morale, physical well-being, and general welfare of officers and enlisted personnel under their command or charge.

Navy life and leadership skill development began to take on new relevance in 2015 when the Navy launched Sailor 2025 to improve and modernize personnel management and training systems for more effective recruitment, management, and retention. A pillar of Sailor 2025 is Ready Relevant Learning (RRL), an approach focused on providing the right training at the right time in the right way to ensure that Sailors are ready for the fleet. A key element of RRL is to develop career-long learning continuums for each Sailor rather than provide most of their technical skill training prior to reaching the fleet. Career-long learning continuums will later expand to include nontechnical training [10].

N17's goal of structuring life and leadership skill training around the four key BLC stages (i.e., recruit, accessions, maintenance, and transition) clearly aligns with RRL. To guide this effort, N17 developed the Navy Primary Prevention Strategy to promote healthy relationships, smarter choices, and positive behaviors among individual Sailors through the three lines of effort noted earlier (i.e., LDA, BLC, and P⁴) [4-5, 11].

The Navy Primary Prevention Logic Model, approved in December 2018, identifies several assumptions that underlie the prevention strategy, including the following:

- Signature behaviors (SBs) should be supported, while DBs can be prevented by building the skills that promote SBs.²
- Prevention efforts must be developmental, at critical touchpoints, and account for unique military stressors (such as deployment) and for variability in Sailors' individual life experiences and preexisting conditions [4].

² According to the logic model, SBs are behaviors that are positive, honorable, and promote the Navy's Core Values, Navy Ethos, and Core Attributes (treating others with respect, demonstrating strong leadership, etc.). DBs are behaviors that are counterproductive to Sailor readiness and may cause harm to a Sailor or to others.

The current CNA project supports implementation of the Primary Prevention Strategy by providing research-based information on key life and leadership skills that Sailors need to succeed in the Navy, key touchpoints along the BLC when they should receive the training, and the frequency and level of the training they should receive.

Study method

Our primary data collection methods were literature review and SME discussions. We also delved into the current Navy LifeSkills course by reviewing course materials, observing a three-day Training Requirements Review (TRR) for the course, and talking with LifeSkills course instructors at the TRR about the key life skills that new recruits need and when and how those skills are best taught.

To identify key life and leadership skills and related content, we conducted a literature review that included the following:

- Life skill curricula offered in educational institutions or suggested by experts in the field
- Social sciences literature on characteristics and skills associated with positive personal, work, and community behavior, and with effective leadership
- Prior CNA reports that addressed Navy training aimed at building resilience and preventing DBs
- Literature on effective approaches to skill development and behavior change, including recommended timing, frequency, and nature of instruction

In the second phase of our study, we supplemented what we had learned from the literature review regarding touchpoints and frequency with discussions with SMEs across the Navy. During these discussions, we requested feedback on the skills we had selected, and asked them to identify the most significant issues they encounter with the Sailors (enlisted and officer) with whom they interact, as well as the skills that would help mitigate or prevent these negative behaviors. We also asked them for their perspectives on touchpoints and training delivery methods, and how often the skill training should be refreshed or enhanced. In addition to the LifeSkills instructors mentioned above, we talked with 26 SMEs with the following characteristics:³

³ We are indebted to FORCM (AW/SW/FMF) Karim Cole, the Force Master Chief for Naval Education and Training Command, for helping us to identify the SMEs.

- Rank: 1 O-7, 1 O-6, 1 O-4, 18 E-9s (most of whom were Command or Force Master Chiefs), 3 E-8s, 1 E-7, and 1 civilian
- Gender: 24 men, 2 women
- Component: 22 Active Component (AC), 2 Full-Time Support (FTS), and 1 Selected Reserve (SELRES)
- Commands/communities: Recruiting, Recruit Training Command (RTC), aviation, special warfare, Nuclear Field, submarine, surface combat, surface warfare, OPNAV, information warfare, and Fleet and Family Support.

This sample of SMEs was based on the recommendations of N17 personnel and was intended to provide initial input on touchpoints and frequency. As a consequence, the sample is small and not necessarily representative of the Navy as a whole in terms of gender, race, paygrade/age, and other factors we are not able to identify (such as marital status and education,). While consistent patterns in responses emerged during our discussions, and these responses were in agreement with the literature we reviewed, SMEs with other experiences or expertise (e.g., mental health professionals, legal experts, more junior Sailors) could provide additional insights. Therefore, if the Navy wishes to obtain input on skills, touchpoints, and frequency and level of life skill content from a more comprehensive and representative SME sample, the findings shared in this report might serve as the basis for development of a survey that could be administered to a larger, and perhaps more representative sample in the future.

We derived information on frequency and level of skill content from discussions with SMEs and from the literature on skill acquisition, behavior change, and effective approaches to preventing DBs.

Life and Leadership Skills

Defining skills

Difference between skills and related concepts

This project focuses on a set of nontechnical skills associated with academic, career, and personal success and fulfillment. These kinds of skills are given various labels in the literature, including life skills [12-13], soft skills [14], character skills [15], social and emotional learning [16], and 21st Century Skills [17-18]. The literature suggests a wide array of skills that might be labeled life and/or leadership skills.

Before discussing the skills of interest to this project, we must first clarify what is meant by *skills* versus other individual characteristics or attributes. When describing behavior, primarily in an occupational context, skills are contrasted with *knowledge* and *ability*. While there is general agreement regarding what each of these concepts means, we provide the definitions cited in [19] with some minor modifications:

- **Knowledge:** Body of information required to perform a task
- **Skill:** Proficiencies learned or acquired through training or practice
- **Ability:** Capacity to apply knowledge and skills to complete a task (abilities are often considered innate)

Clear distinctions are not always possible between knowledge, skills, and abilities, however. For instance, repairing a jet engine requires knowledge of how the engine works, ability to manipulate the parts, and the skill to accomplish the steps in the proper order. In addition, skills are not synonymous with other personal characteristics that influence a person's success in life and career, such as attitudes, beliefs, values, and personality traits. We adopt the following definitions of these attributes from a 2016 literature review on soft skills by Matteson, Anderson, and Boyden [14] and from the psychology literature [20-21]:

- **Attitudes:** A positive or negative judgment, based in part on emotion, about an outside entity [14]
- **Beliefs:** An acceptance that certain factual evidence is true, informed by an individual's own values [14]
- **Values:** General standards or principles that guide behaviors among varying situations and to which individuals feel a strong commitment [14]

- **Personality traits:** Relatively enduring patterns of thought, feelings, and behavior that influence the tendency to respond in certain ways under certain circumstances [20-21]⁴

Distinctions among these concepts are often difficult to discern. The relationship between skills, abilities, and dispositions/traits is particularly complex. In this report, we consider skills as involving performance or action, whereas traits are qualities people possess that inform how they use their skill sets [14]. Because personality traits are related to job performance, scholastic achievement, social interactions, and mental health—and, in some measure, are related to many life and leadership skills—we provide in the next subsection a brief overview of the literature on personality traits to inform the subsequent discussion of life skills.

Personality traits

Personality traits have been the subject of psychological research since the 1920s. Through early, seminal work that focused on a taxonomy of personality traits and measurement techniques,⁵ the research community coalesced on the Five Factor Model, which has been widely replicated and shown to be empirically distinct from cognitive ability [23]. The Five Factor model includes five dimensions that are described on a continuum. Definitions for each factor vary slightly depending on source and measurement tool. The definitions used here are paraphrased from Barrick and Mount's 1991 meta-analysis [23]:

- **Extraversion** (compared with introversion) represents the degree to which a person is sociable and assertive (ambitious).
- **Neuroticism** represents the degree to which a person is anxious, worried, and emotional.
- **Agreeableness** represents the degree to which a person is likable, courteous, and willing to get along with others.
- **Conscientiousness** represents the degree to which a person is dependable, orderly, timely, and compliant with rules and regulations.
- **Openness to experience** represents the degree to which a person is receptive to new ideas and experiences. This trait has been conceptualized as broadly related to intellect, curiosity, and cultural tolerance.

⁴ Matteson, Anderson, and Boyden [14] refer to "personality traits" as "dispositions."

⁵ See McDougall [22] for an early description of human behavior beyond cognitive ability; see the summary of Cattell's work in the 1940s for an evolution of the 16 Personality Factor model, one of the early comprehensive models of personality traits [23].

Personality traits have been widely researched as predictors of workplace and interpersonal behaviors. Three examples follow:

- Conscientiousness, extraversion, and openness to experience are associated with higher job performance for specific occupational groups and/or job criteria [23].
- Low levels of agreeableness and conscientiousness are associated with certain counterproductive work behaviors (i.e., voluntary behaviors that violate organizational norms and disrupt the organization's mission), even when controlling for job satisfaction [24].
- Individuals with high levels of openness are more likely to be intellectually curious, display warm emotional expressions toward their children, emerge as leaders, and have low generalized prejudice. In contrast, people with low levels of openness tend to have difficulty in perspective-taking, are easily persuaded by others, and are more likely to have difficulty with relationships [25].

Personality traits are also associated with other behaviors that contribute to overall health and well-being, such as avoidance of substance abuse, lack of prejudice, healthy eating and exercise habits, sleep, relationship satisfaction, coping skills, grades and scholastic achievement, and test-taking [20-21, 26-35].

Although the definition of traits shared earlier indicates that personality traits are relatively enduring over time, recent research suggests that personality traits can change throughout the adult life cycle. Using meta-analytic techniques, researchers have demonstrated that social dominance (a component of extraversion), conscientiousness, and emotional stability generally increase through young adulthood, whereas openness and social vitality (a component of extraversion) generally decrease in old age [27]. These findings suggest that life skill training may help control negative behaviors in young Sailors that are associated with these personality traits.

Life skills

The importance of life skills to the Navy's COE efforts is made clear by a large body of literature that establishes the relationship between life skills and behaviors. Indeed, N17's Primary Prevention Campaign notes that key life skills are associated with choices that promote SBs and reduce DBs [11]. In our interim report to the sponsor in July 2019, we detailed our literature review on life skills [36]. A summary of that review is provided in Appendix A, including research that reports the relationship between these skills and outcomes, such as career success and destructive behaviors.

Based on our review of life skills common across multiple frameworks and prioritized in current military life skills and related training, we produced a list of 18 macro life skills that we believe are important for Sailors' development, especially in terms of promoting SBs and reducing DBs. As we explain in Appendix A, we use the National Research Council (NRC) framework [37] as an organizer (Table 1). Definitions of each skill are provided in Appendix B.

Table 1. Fundamental life skills for Sailors

NRC competency domain	Life skill
Cognitive	Critical thinking/reasoning
	Problem-solving/decision-making
	Planning and organization
Intrapersonal	Self-awareness
	Self-efficacy
	Self-regulation
	Self-direction/initiative
	Perseverance
	Positive thinking
	Integrity
	Personal responsibility
	Empathy/perspective-taking
	Flexibility/adaptability
	Appreciation for and embracing diversity
Interpersonal	Communication ^a
	Teamwork/collaboration
	Healthy relationships
	Conflict resolution

Source: CNA generated based on the NRC framework.

^a The NRC framework includes communication in both the cognitive and interpersonal domains. Although the ability to speak, write, read, and understand the written and spoken word are certainly cognitive skills, the types of life skills that are the most appropriate for our purpose are those that involve interactions between two or more people; hence, we include communication skills in the interpersonal domain only.

A number of items that are not included in our list require elaboration. We do not include grit/resilience because the literature on resilience indicates that it results from a number of "protective factors" that individuals develop or possess. Many of these factors include life skills identified in the literature and shown in Table 1, including self-awareness, self-regulation, self-efficacy, relationship skills, and teamwork [38-46]. Resilience, then, represents a combination of many of the life skills in the intrapersonal domain.

Other items that may appear to be important omissions from the list of skills include topics currently addressed in Navy training, such as sexual harassment and assault prevention, suicide prevention, nutrition and health, and personal financial management, the latter of which is required training for all military servicemembers.⁶ Their omission reflects how we define the life skills of interest. Our review of the life skill literature indicates that the appropriate focus should be on macro skills (in Table 1) that are essential in promoting SBs and preventing DBs. Component skills are capabilities that demonstrate skill acquisition, whereas micro applications indicate contexts in which the competencies are applied. For instance, for the skill of self-regulation, individuals need to develop component skills of setting behavioral goals, developing strategies to attain those goals, monitoring their own behavior in implementing those strategies, and adjusting goals and strategies as needed. These component skills may then be reinforced or illustrated using micro applications, such as those covered in the Navy LifeSkills course (e.g., sexual assault prevention and suicide prevention). This logic extends to any other number of topics that are not skills per se but specific applications of skills. For instance, time management is an application of planning and organizing. As noted earlier, we will discuss our findings related to component skills in a later section.

The relationship between macro skills, component skills, and micro applications is depicted in Figure 1, using the macro skill of self-regulation as an example.

Figure 1. Self-regulation skill, component skills, and micro application (an example)

Skill	Component skill	Micro application
Self-regulation	1. Set behavioral goals 2. Adopt strategies to attain goals 3. Monitor own behavior 4. Adjust goals/strategies as needed	Responsible drinking Personal financial management Use of social media

Source: CNA.

⁶ In accordance with the FY 2016 National Defense Authorization Act (NDAA) and Section 992 of Title 10, U.S.C., servicemembers must have periodic financial literacy courses.

Leadership skills

The Navy's COE aims to ensure that Sailors move through the BLC in three key dimensions: technical knowledge, life skills, and leadership skills. This project addresses the life skill and leadership skill components of the BLC. We focus not on enlisted or officer preparation and training but on general leadership skills that help all Sailors develop into leaders as they progress through their Navy careers. To determine which leadership skills are most important in Sailors' development, we conducted an in-depth review of the social science literature and key Navy leadership sources, which we detailed in the interim report [36]. That literature review is summarized in Appendix C.

Our review of the literature found substantial overlap between life skills and leadership skills, especially for junior personnel at lower levels of an organization. Indeed, the leadership continuum consists of a progression that begins with individuals obtaining and enhancing life skills for themselves (me) and progresses to enhancing and applying them to the organization (us). The "us" becomes an increasingly larger number of people over whom leaders have responsibility. Leadership progression can also involve changes in technical skills and mission, but life skills are the foundation that helps leaders adapt to these changing requirements. Our review of the literature further indicates that the NRC domains used to organize life skills in the preceding section are applicable to leadership skills.

Family considerations

As we noted earlier, our focus is on life and leadership skills for servicemembers, but keep in mind that their SBs and DBs are often intimately connected to their family's well-being. A recent study conducted for DOD by the National Academies of Sciences (NAS) indicates that military families can be adversely affected by aspects of military life (such as deployments, illnesses, and injuries) that undermine the intrafamilial resilience that supports family well-being and readiness. NAS reported consistent findings indicating that the effects of severe stressors can be prevented and ameliorated with evidence-based and evidence-informed interventions focused on strengthening family relationships, caregiving/parenting, and family environment. They concluded that family resilience skills (e.g., effective communication strategies, emotional regulation, problem solving, and competent parenting) are beneficial in promotion, prevention, and intervention in the wake of stress and trauma.

The NAS study identified a set of goals to promote family resilience and well-being, some of which encompass some of the same life skills we identified for this project. These goals include the following [47]:

- Develop and share knowledge within and outside the family, building shared understanding about stressors, including servicemembers' injury or illness, as well as modeling and teaching **effective communication strategies**.
- Build a positive, emotionally safe, warm family environment that includes (a) effective stress reduction and **emotional regulation strategies** for parents to engage in and model for children and (b) engaging in activities that are calming and enjoyable for all.
- Master and model important interpersonal skills, including **problem-solving and conflict resolution** and incorporating evidence-based strategies.
- Maintain a vision of hope and future **optimism** for the family, engendering positive expectations and creating a hope-filled family narrative.
- Promote security among adults and children, strengthening parent-child relationships that are known to contribute to individual and relational wellness for both adults and children, and focusing on effective **conflict resolution** between spouses or partners.

Although developing a set of life skills for families is beyond the scope of this project, the Navy should consider the value of coordinating development of Sailors' individual life skills with that of their families at key touchpoints. For instance, Sailors returning from deployment should be made aware of and encouraged to utilize support and classes from the Fleet and Family Support Center (FFSC) that can help them and their families plan for and cope with the stresses associated with separation and reintegration into family life. For instance, FFSC classes may include sessions on conflict resolution, parenting, couples communication, and stress management.

SME feedback on life and leadership skills

As noted earlier, prior to conducting the life skill literature review, we obtained input from LifeSkills instructors at the TRR about problematic issues recruits face and the skills that would help recruits better navigate their challenges. As we conducted the literature review, we recognized that many of the issues mentioned by LifeSkills course instructors represented micro applications of the skills identified in the literature. For instance, Sailors struggling to cope with the stress of transitioning to Navy life, the uncertainty of their initial assignments, and (for many Sailors) financial issues could benefit from such skills as self-awareness, self-

regulation, self-efficacy, perseverance, positive thinking, planning and organizing, and problem-solving/decision-making.

In later discussions with SMEs, we asked them to identify problematic issues observed in the Sailors they work with and then to identify life skills on our list that would help mitigate those problems. The consensus among the SMEs we talked with was that the list contained the right life and leadership skills, although some used broader terms such as *resilience* or *leadership* that correlated with the life skills we had identified.

When input from LifeSkills course instructors and other SMEs are considered, the most common problematic issues mentioned by SMEs were as follows:

- Mostly junior enlisted: Financial difficulties, lack of sense of purpose or contribution to Navy's mission, relationship problems, and mental health issues
- Senior enlisted: Integrity and personal responsibility issues, sometimes resulting from advancing too quickly before they have enough experience and training
- Mostly junior officers: Lack of confidence, unwillingness to have difficult conversations, applying standards and rules unevenly
- All: Integrity (doing the right thing) and maintaining standards for fitness and quality work

The most commonly cited skills to address these issues with junior Sailors included the following:

- Planning and organizing
- Self-regulation
- Self-awareness
- Problem-solving/decision-making
- Self-direction/initiative
- Perseverance
- Personal responsibility
- Positive thinking
- Healthy relationships
- Integrity

The SMEs had a somewhat different list of the most important leadership skills. The leadership skills mentioned most often by SMEs included the following:

- Communication
- Integrity
- Problem-solving/decision-making
- Empathy/perspective-taking
- Conflict resolution

As noted earlier, our sample of SMEs is small and not necessarily representative of the Navy as a whole. SMEs with other experiences or expertise might have noted different or additional issues and skills. For example, appreciation for and embracing diversity was mentioned by just three SMEs, two of whom were gender or racial minorities. Further, although by definition junior Sailors are not SMEs, their perspectives regarding the greatest challenges they experienced during the Delayed Entry Program (DEP) and accession training could yield valuable insight. Hence, the Navy may wish to consider using findings from this small sample of SMEs as the basis for a more comprehensive and representative survey in the future.

Life Skill Training Touchpoints

In addition to identifying the key life and leadership skills Sailors need to succeed in their Navy careers, another task was to identify touchpoints along the BLC at which Sailors should be exposed to information and training on each of the identified skills. These touchpoints will be based on periods in a Sailor's life and leadership development when training/educational needs change or when it seems important to reinforce or enhance foundational skills.

The notion of touchpoints is consistent with the Navy RRL vision—the right training at the right time and in the right way [10]. It is also consistent with the literature we reviewed indicating that acquiring skills takes time and requires both reinforcement and multiple opportunities to practice retrieving information or executing a procedure or strategy [9, 15, 20, 48]. In addition, research on effective prevention programs indicates that such programs should be appropriately timed to have the greatest impact (ideally, before the behavior develops) and tailored to participants' developmental needs [49].

Supported by this literature, we drew on numerous sources to develop a set of Navy-specific touchpoints: a COE briefing provided to CNA by our sponsor [5], discussions with SMEs at the LifeSkills TRR, a review of DOD touchpoint guidelines for financial literacy training [50-51] and the Transition Assistance Program [52], touchpoints identified for the Navy's Inclusion and Diversity training [53], previous CNA research regarding DBs [9, 54-58], our knowledge of the career trajectory of Sailors, and discussions with the SMEs in the second phase of our work. In this section, we discuss SME general insights regarding touchpoints and then share our recommended universal touchpoints for all Sailors, variable touchpoints that occur at different times for different Sailors, and touchpoints specific to the Reserve Component (RC).

Touchpoint insights from SMEs

SME discussions yielded important general insights regarding touchpoints. These insights formed the basis for many of our recommendations for the touchpoints at which life and leadership skills should be taught and refreshed or reinforced. Key SME insights follow:

- **Life skill training needs to be provided as early as possible and reinforced throughout the Sailor's career.** This insight suggests that initial instruction on all of the life skills should occur during the accession stage of the BLC (i.e., during DEP, RTC (bootcamp), LifeSkills course, or A- and C-schools).

- **Refreshers and reinforcement can occur at existing training touchpoints.** Several SMEs noted that natural touchpoints for training and reinforcement are already in place, and that life skill refreshers can and should be integrated at these touchpoints. Examples include indoctrination (INDOC) at the first and subsequent commands, training associated with advancement, and command-based Sailor 360 sessions.
- **Transition periods are appropriate opportunities for refreshers.** Examples of challenging transitional periods and some associated problems include the following:
 - *Transitions from a more regulated environment to one with fewer restrictions:* Examples include the period immediately after bootcamp or A-school, liberty while at sea, and after deployment. Each of these transitions is a time when Sailors may be more likely to engage in DBs.
 - *Before taking an assignment outside the continental US or a geobachelor tour:* Sailors may be especially prone to relationship problems at these times. Young Sailors may rush into marriage out of fear of separation or to qualify for additional financial benefits, such as Basic Allowance for Housing. Married Sailors often do not communicate important information to their families about being stationed overseas, which makes those transitions more stressful for the family. Assignments outside the US require Sailors to be sensitive to different cultural norms.
 - *After deployment:* This is a sensitive time for family reunification because spouses and children have to adjust to reintegration of the Sailor into the household dynamics. Some Sailors, especially junior ones, are more likely to purchase a car soon after returning from deployment without careful considerations of their financial health or the value of the salesperson's offer.
 - *Change of command* is a time when some Sailors may slack off as they test the standards of a new leader, and new leaders may falter without reinforcement of what to focus on first.
 - *Change in duty assignment:* The period prior to the change requires Sailors to carefully consider which assignment options are the best for them and for their families. They also should consider what they need to do to succeed in their new assignment. Some Sailors may struggle to adjust to new leaders, peers, and living arrangements.
- **Periods in which Sailors have more free time or are working out-of-rate can be challenging, and Sailors may be more likely to engage in DBs.** Examples of these periods include during ship maintenance or ship precommissioning when Sailors have more time on their hands and may lack a sense of purpose as they engage in more

menial tasks. At these times, some Sailors may be more likely to engage in DBs and/or be less vigilant about working to standards.

- **Special, arduous or stressful duty assignments may require refresher training.** Examples include recruiting duty, being forward deployed, or being in a combat zone, all of which can create problems with stress coping, leading to relationship issues and various DBs.

These insights served as the basis for a set of touchpoints at which life and leadership skills should be taught and refreshed or reinforced. In the following subsections, we differentiate the touchpoints as universal or variable. We also consider RC-specific touchpoints.

Universal touchpoints

Universal touchpoints are transition points or events experienced by the vast majority of Sailors when they could benefit from initial, refresher, or enhanced skill training. Much of the refresher or enhancement training is necessitated by the fact that the event is potentially stressful or involves challenging or arduous work (e.g., training and deployments), is sometimes associated with DBs (e.g., shore liberty), or requires significant planning and decision-making (e.g., selecting the next assignment or deciding whether to separate). As we discuss later, categorizing touchpoints in this way helps to build a framework for determining which skills should be included in each touchpoint.

Other touchpoints are events in which Sailors are already given some formal or informal training, which affords an excellent opportunity to refresh or enhance skills that are the most relevant for that phase of Sailors' careers.

We indicate these touchpoints, organized by BLC phase, in Table 2. Accession touchpoints differ for enlisted and officers; we note the enlisted touchpoint first and separate the enlisted and officer touchpoints with a slash (/). Note that recruits can spend as little as a few days to a year in DEP. In contrast, officers are in pre-full-duty training much longer. At the very least, all officers have a four-year college degree, many of whom earned it at the Naval Academy or in the Reserve Officers' Training Corps (ROTC). A significant number of the life and leadership skills are likely taught as part of their college curriculum. Those skills that are not already included could be incorporated into the Naval Academy or ROTC curriculum. Life and leadership skill training are also likely already part of Officer Candidate School, and those skills that are not included could be incorporated into that curriculum. Finally, for all new officer accessions, additional life skill training could be incorporated into their warfare qualification training.

Table 2. Universal touchpoints for enlisted Sailors' life and leadership skills training

BLC stage	Touchpoint	
Recruit	Delayed Entry Program	
Accession	RTC/Naval Academy, ROTC, Officer Candidate School (OCS)	
	LifeSkills course	
	A- and C-school/warfare qualification training	
Career continuum	First full duty INDOC	
	Sea duty	Predeployment phase
		During: pre- and postliberty phases
		During deployment
		Postdeployment phase
		Maintenance phase or precommissioning phase
	Advance	Prepare for exam/Selection Board
		E-4: Enlisted Leader Development (ELD) Foundational course
		E-5: ELD Intermediate course
		E-6: ELD Advanced course
		E-7: CPO Leader Development course
		E-8 and E-9: Senior Enlisted Academy
		Officer promotion: Intermediate Leadership, Division Officer Leadership, Prospective Executive Officer, Prospective Commanding Officer, and Major Commanding Officer
	Change of command at unit	
	Change of duty station	Before move (selecting billet, housing, etc.)
INDOC		
Career Development Board		
Chief's/Officer's Mess		
Sailor 360		
Retention decision		
Transition (retire, separate, to RC)		

Source: CNA.

The enlisted advancement touchpoints are based on strong recommendations from SMEs that life skills should be reinforced in the context of the new Enlisted Leader Development (ELD) continuum that Sailors experience at each advancement stage [59]. Multiday courses are offered at each level of the continuum and encompass life and leadership skills that parallel many of those skills that are on our list [60-62]. Skills acquired in the course are expected to be refreshed in the context of regular command-delivered sessions known as Sailor 360 and reinforced through coaching, mentoring, on-the-job training, and self-study [63].

Similar to enlisted Sailors, officers are required to take courses as they are promoted. Some of these courses include, by ascending rank, Intermediate Leadership, Division Officer Leadership, Prospective Executive Officer, Prospective Commanding Officer, and Major Commanding Officer courses [64].

Most of the other touchpoints are shared by both enlisted Sailors and officers, and we do not differentiate between them in our subsequent discussions.

Variable touchpoints

Variable touchpoints are transition points that may be common to many Sailors but occur less frequently and at variable times. They include career and personal touchpoints that can be anticipated, such as marriage or the birth or adoption of a child. Other variable touchpoints may be unanticipated and individual, such as loss (e.g., financial, personal, relationship) or a mental or physical health problem (e.g., depression or anxiety diagnoses, chronic or acute health diagnoses). Table 3 lists examples of two types of variable touchpoints: career and personal.

Table 3. Variable touchpoints for life skill and leadership skill training

Type	Subtype	Touchpoint
Career	Hazardous duty	Forward deployed
		Combat zone
	Setback	Fail advancement exam
		Fail to advance
		Fail physical readiness test
		Negative evaluation
	Special assignments	Assigned overseas
		Selection for special assignments (e.g., instructor, embassy)
	Recruiting duty	
Personal	Destructive behaviors	Individual or unit
	Family	Marriage
		Relationship difficulties (including separation and divorce)
		Pregnancy/birth or adoption of a child
		Geographic bachelor tour
	Individual	Major purchase (car, home)
		Medical condition (mental or physical)

Type	Subtype	Touchpoint
		Loss (personal, financial)
		Referred by commanding officer (CO)
		Apply for a commissioning program

Source: CNA.

Some of these variable touchpoints are also factors that modify which skills Sailors need to have reinforced or refreshed at some or all of the universal touchpoints. For instance, Sailors who have DB waivers or commit DBs after accession may require additional skill enhancement or refreshment to help them refrain from committing additional DBs at certain touchpoints. In other cases, Sailors who have committed an alcohol-related DB may require additional self-regulation or planning and organizing skill enhancement prior to liberty and after deployment. As we discuss later, Sailors with families may also require additional skill refreshers at certain touchpoints.

Reserve Component touchpoints

Categories of the RC include FTS, SELRES, Individual Ready Reserve, and Retired Reserve. We restrict our discussion of the RC to FTS and SELRES, the only members of the Navy RC with mandatory active duty obligations.

FTS members are on active duty (but not in the AC) full time and therefore experience the same touchpoints as their AC peers, as identified earlier. In contrast, while all members of SELRES go through RTC, A-school, and LifeSkills training, members of SELRES are on active duty only periodically.⁷ It is only during those periods that the Navy can provide life or leadership training. SELRES members who are called to active duty for extended periods (e.g., because they are mobilized or on active duty for special work) will also experience some or all of the touchpoints we already identified. In Table 4, we identify touchpoints that are unique to SELRES.

⁷ RC members have either transitioned from the AC to the RC, or accessed into the RC. Enlisted RC members who access directly into the RC go through the same initial accession training as their AC peers.

Table 4. SELRES touchpoints

Touchpoints
Weekend drills
Annual training
Premobilization phase
Postmobilization phase

Source: CNA.

Skills and touchpoints

With skills and touchpoints identified, the next step was to crosswalk the two to provide an indication of which skills should be taught, refreshed, or enhanced at each touchpoint. The broad basis for this crosswalk was the literature indicating that life skills should be taught early in life, that skills and behavioral change occur through follow-up and practice, and that young adults are at increased risk for numerous kinds of DBs (see Appendix A). This body of literature strongly indicates the importance of providing life skill training for Sailors early in their careers and reinforcing those skills periodically. This perspective was affirmed by SMEs, many of whom recommended that training for many—and, in some cases—all of the identified life skills should start early in Sailors' careers and be refreshed and enhanced at existing touchpoints along the career continuum.

With this basis in mind, we sought to ensure that all 18 life skills were taught initially during the accession phase and were refreshed or enhanced at appropriate touchpoints. We describe our process for determining which skills should be taught, refreshed, or enhanced at each point. We then share the skill and touchpoint crosswalk we developed based on this process.

Process for developing skill and touchpoint crosswalk

To determine which skills to assign to each touchpoint, we used a two-phase process. In the first phase, we developed a matrix that displayed skills along the top row and touchpoints in the left-hand column. Within each cell, we indicated how many SMEs recommended that a particular skill be taught or refreshed at specific touchpoints, with brief notes on the rationale they provided. Each member of our study team then independently worked from this matrix to prioritize the skills that should be taught or refreshed at each touchpoint. Individual results were compiled into a single matrix for team discussion, with the goal of reaching consensus on which skills to prioritize for each touchpoint.

Phase two in the process emerged as the study team worked to achieve consensus, at which time we recognized the need to be consistent in identifying the unique stressors associated with each touchpoint, as well as the life skills that would help mitigate those stressors. This led to development of a framework of touchpoint categories based on the stressors associated with that touchpoint, as well as a list of skills that would help mitigate those stressors.

Developing the framework was a three-step process. First, we proposed a few categories of touchpoints that capture dominant stressors, challenges, or other characteristics of one or more touchpoints. These are not mutually exclusive categories; touchpoints may have several of these characteristics, and individuals may perceive the characteristics of each differently. We could arguably assign all skills to all touchpoints, but our goal was to identify the most critical skills for each touchpoint in order to identify the smallest possible set that would cover the critical skills that need training or refreshment. The categories we identified follow:

- **Demanding work:** The Sailor's duty assignment is stressful, arduous, or otherwise physically or mentally demanding. In these periods, Sailors need excellent planning and organization skills for time management; perseverance through long, stressful work hours; understanding of how they can best manage stress and succeed in their jobs; and communication skills to manage demanding assignments as part of a team.
- **Change or unknown circumstances:** The Sailor is transitioning to unfamiliar life or career circumstances (e.g., to/from the AC and civilian life, and rotation to an out-of-rate or hazardous duty assignment) that require planning and organizing skills to address workload or life changes, flexibility in adapting to changes, perseverance and positive thinking in the face of discomfort associated with change, and taking actions to learn about and succeed in the new environment.
- **Decision point:** The Sailor must make personal and career decisions (e.g., marriage, or selecting the next assignment) that require both cognitive skills in making the decision, and intrapersonal skills that help the Sailor reflect on his or her needs and desires and be confident in his or her abilities to succeed in the chosen path.
- **Increasing leadership responsibility:** The Sailor is assuming more leadership responsibilities that require enhanced skills for making important decisions and leading others.
- **Family/personal:** The touchpoint is likely to create stressors in the Sailor's personal or family life, such as touchpoints requiring separation from or reintegration into relationships or personal obligations. This is not a category per se but rather additional skills that should be included when servicemembers must include personal or family considerations. For instance, before deployment, Sailors must make sure

they have designated a power of attorney and an up-to-date will. Sailors with families must ensure that family needs will be met while they are on deployment.

- **Situational:** This category applies to flexible touchpoints in which the stressors or challenges depend on current circumstances or situations (e.g., Sailor 360, when the unit leader determines which skills are important to refresh based on unit demands or circumstances).

Step two was to identify the skills that our understanding of the limited literature, our discussions with SMEs, and our own judgment indicate would be the most helpful for mitigating the stressors or challenges associated with each category. We show these skills in Table 5. Reading across the rows, the cells shaded in green are those skills that we hypothesize are most closely associated with that touchpoint category.

Table 5. Touchpoints and categories

Skill	Demanding work	Change or unknown	Decision	Leadership	Family/ personal	Situational
Critical thinking						
Problem-solving/ decision-making						
Planning/ organizing						
Self-awareness						
Self-efficacy						
Self-regulation						
Self-direction						
Perseverance						
Positive thinking						
Integrity						
Personal responsibility						
Empathy/ perspective taking						
Flexibility/ adaptability						

Skill	Demanding work	Change or unknown	Decision	Leadership	Family/ personal	Situational
Embracing diversity						
Communication						
Teamwork						
Healthy relationships						
Conflict regulation						

Source: CNA.

Our third step was to identify what we believed was the predominant category associated with each touchpoint, as shown in Table 6. We consolidate the touchpoints into broad categories. For instance, in Table 2, we listed each enlisted and advancement training opportunity; in the table below, we refer to these touchpoints collectively as advancement/promotion.

Table 6. Touchpoint and category crosswalk

Universal			
BLC stage	Touchpoint		Categories
Recruit	Delayed Entry Program		Initial skill training
Accession	RTC/Naval Academy, ROTC, OCS		
	LifeSkills course		
	A-/C-school		Change
Career Continuum	First full duty INDOC		Change
	Sea duty	Predeployment	Change
		During: pre- and postliberty	Decision
		During deployment	Demanding
		Postdeployment	Change
		Maintenance phase or precommissioning phase	Change
	Advance	Prepare for exam/Selection Board	Demanding
		Advance/promote	Leadership
	Change of command at unit		Change

Universal			
	Change of duty station	Before move (selecting billet, housing, etc.)	Decision
		INDOC	Change
	Career Development Board		Decision
	Chief's/Officer's Mess		Leadership
	Sailor 360		Situational
	Retention decision		Decision
Transition (retire, separate, to RC)			Change
Variable			
Type	Touchpoint		Categories
Career	Hazardous duty		Demanding
	Setback		Change
	Special assignments		Demanding
	Recruiting duty		Demanding
Personal ^a	Destructive behaviors		Situational
	Family		Family/personal
	Individual		Situational
SELRES			
Type			Categories
Weekend drills			Demanding
Annual training			Demanding
Premobilization			Change
Postmobilization			Change

Source: CNA.

^a Personal touchpoints were defined in Table 3, and they include such events as marriage, birth of a child, major purchase, and medical conditions.

Skill and touchpoint crosswalk

Using the process described earlier, we developed the skill and touchpoint crosswalk shown in Table 7 based on the literature, SME input, our expertise, and the framework of touchpoint categories. Red-shaded cells indicate initial skill training at that touchpoint, yellow indicates skill refresher training, and blue indicates enhanced training. Ideally, most or all of these skills would be reinforced multiple times early in a Sailor's career. Given the limited time available at each touchpoint, however, we have suggested only the skills that we consider are the most important at each touchpoint. Perhaps the greatest uncertainty in assigning skills to touchpoints is for variable touchpoints; it is likely that the skills required for each Sailor at key touchpoints will vary significantly depending on such issues as family status and previous DBs.

The Navy may consider this matrix a starting point to identifying the optimal mix of skill training and reinforcement at key touchpoints in Sailors' careers.

This crosswalk is based on the notion that initial training on all life skills should occur during the accession phase for reasons stated previously. If life skills were effectively taught in all school districts in all states, recruits might require only refresher training throughout their careers. However, the reality is that most recruits do not access with all of these skills, and many access with relatively few. Hence, initial training in the life skills we identified should start early in Sailors' careers (i.e., prior to full duty) and should be reinforced at appropriate touchpoints.

Some explanation is required to help interpret the crosswalk shown in Table 7. First, we did not assign a touchpoint category to DEP, RTC, and the LifeSkills course because our goal was to ensure that initial training on all life skills was provided during the accession phase. We based our suggestions for how to divide life skill instruction across the various accession touchpoints on SME discussions and our knowledge of Navy recruiting and accession attrition, which indicate that life skill instruction should be focused on the following overarching goals for each accession touchpoint:

- DEP: Skills that will ensure that they access and will prepare them for bootcamp
- RTC: Skills that will help recruits endure the rigors of bootcamp, cope with the significant changes in their life as they transition from civilian to Sailor, and avoid attrition
- LifeSkills course: Skills that will prepare Sailors for initial experiences as a Sailor
- A-/C-school: Skills to help Sailors cope with the stress of, and succeed in overcoming challenges associated with, technical training (at this point, skills will either be enhanced or refreshed)

Table 7. Skill and touchpoint crosswalk

TOUCHPOINT		COGNITIVE			INTRAPERSONAL								INTERPERSONAL						
		Critical thinking	Problem-solving/decision-making	Planning & organizing	Self-awareness	Self-efficacy	Self-regulation	Self-direction/ initiative	Perseverance	Positive thinking	Integrity	Personal responsibility	Empathy/perspective taking	Flexibility/adaptability	Embracing diversity	Communication	Teamwork/collaboration	Healthy relationships	Conflict resolution
Universal Skills and Touchpoints																			
Re-cruit	Delayed Entry Program (DEP)																		
Access-ion	RTC																		
	LifeSkills course																		
	A-/C-school																		
Career Contin-uum	First full duty INDOC																		
	Predeployment																		
	Pre- & postliberty																		
	During deployment																		
	Postdeployment																		
	Maintenance phase or precommissioning																		
	Prepare for exam/ Selection Board																		
	Advance/promote																		
	Change of command at unit																		

	TOUCHPOINT	COGNITIVE			INTRAPERSONAL							INTERPERSONAL							
		Critical thinking	Problem-solving/decision-making	Planning & organizing	Self-awareness	Self-efficacy	Self-regulation	Self-direction/ initiative	Perseverance	Positive thinking	Integrity	Personal responsibility	Empathy/perspective taking	Flexibility/adaptability	Embracing diversity	Communication	Teamwork/collaboration	Healthy relationships	Conflict resolution
	Before move (selecting billet, housing, etc.)																		
	INDOC																		
	Career Development Board																		
	Chief's/Officer's Mess																		
	Sailor 360																		
	Retention decision																		
Transition	Retire, separate, to RC																		

TOUCHPOINT	COGNITIVE			INTRAPERSONAL							INTERPERSONAL							
	Critical thinking	Problem-solving/ decision-making	Planning & organizing	Self-awareness	Self-efficacy	Self-regulation	Self-direction/ initiative	Perseverance	Positive thinking	Integrity	Personal responsibility	Empathy/perspective taking	Flexibility/adaptability	Embracing diversity	Communication	Teamwork/collaboration	Healthy relationships	Conflict resolution
Variable Skills and Touchpoints																		
Hazardous duty																		
Setback																		
Special assignments																		
Recruiting duty																		
Destructive behaviors																		
Family																		
Individual																		
SELRES Skills and Touchpoints																		
Weekend drills																		
Annual Training																		
Premobilization																		
Postmobilization																		

KEY Cells that are shaded in red indicate initial training at that touchpoint.

Cells that are shaded in blue indicate enhanced training at that touchpoint.

Cells shaded in yellow indicate refresher training.

Source: CNA.

There are also realities to consider in determining the scope and sequence of life skill training in the accession phase. In DEP, for instance, recruiters already have training requirements, such as the Personnel Qualification Standards and physical fitness. Additional time spent on life skill training would leave less time for established training and for obtaining new recruits. That problem might be mitigated if Navy recruiting moves toward a model in which there are

dedicated DEP recruiters. Even so, DEPers can spend as little as a few days in DEP, so life skill training for these individuals is not a viable option.

In contrast, all recruits spend about the same amount of time in bootcamp and the LifeSkills course. Teaching life skills beyond that which is already provided could require additional time spent in training before reaching the fleet. A more feasible option would be to integrate life skill instruction into existing training. In making these decisions, the Navy should consider the potential benefit that life skill training could provide if it helps reduce attrition or enhances the performance of Sailors when they reach the fleet. The trade-off would likely differ for each of the skills.

Our construct for DEP, RTC, and the LifeSkills course then, is that the skills we identified for DEP are those that should be offered, at a minimum, before Sailors ship to RTC. If that is not possible, those skills and all of those that we indicate for RTC should be covered as early in bootcamp as possible. All of the skills that have not been taught by the end of RTC should be covered in LifeSkills, as well as those that are most closely associated with the micro applications that are required during that course.

Not all of the touchpoints within the same category will have the exact same characteristics or require identical skills, nor will all servicemembers need each of these skills at each of the touchpoints. For instance, we have categorized both predeployment and postdeployment as change/unknown, but each touchpoint has some unique challenges and opportunities. Sailors who are in predeployment work-up are working long hours and preparing for separation from family and friends, some for the first time if they are newly married or have young children. Sailors returning from deployment often have more time off relative to predeployment and during deployment. These Sailors are reunited with family and friends, which can sometimes be stressful as household members adjust to once again working together with the returning Sailor.

Further, servicemembers will differ in their level of each of these skills at each touchpoint, paygrade, gender, or other factors. For instance, otherwise identical Sailors in terms of age, gender, rating, and length of service can vary in the amount of training they have previously had in each skill and their retention of that previous training. We will return to this topic later in the paper.

Note that our framework is based on our review of the literature, knowledge of Navy careers, discussions with relatively few SMEs who are not necessarily representative of the Navy as a whole, and academic backgrounds. More work is necessary to determine the challenges and opportunities inherent in each touchpoint and the relevant associated life skills.

That effort would require input from a wide array of experts, including psychologists, mental health experts, and other SMEs who are familiar with the types of stressors in each touchpoint and in different communities and environments (e.g., Special Warfare and Submarine communities, recruiting duty, overseas assignments). Our intention is to offer the framework as a starting point; the Navy may wish to use this matrix or a similar model to generate further discussion among a wider range of SMEs, including those who currently offer training at the identified touchpoints, to determine the best placement of training and reinforcement on each skill. In fact, existing courses may cover different life skills than those suggested in the matrix, so a review of current curriculum would provide important information to further refine the matrix.

Frequency and Level of Skill Content

The final task we addressed is to identify the frequency and level of the leadership and life skill content that Sailors should be exposed to at each touchpoint along the BLC. This task has many elements, such as considering what the specific content should be for instruction on each life and leadership skill, how often Sailors need refreshers on each skill, and the nature of those refreshers. We discuss each of these elements in this section.

Content of life and leadership skills

The component skills should form the basis of the initial training on each skill. To provide guidance on the content that should be the focus of instruction for each life skill, we conducted an expansive review of the literature that included skills and competencies developed by various academic institutions, educational systems, and other organizations. We found a more developed literature on some skills than others, but we sought to collect at least a preliminary set of component skills for each life skill. We also offer some examples of micro applications that could be incorporated into the training for each skill. Appendix D contains the full list of component skills. We provide an example of component skills and micro applications for planning and organization in Table 8.

The component skills provided in Table 8 and in Appendix D could serve as a first step toward developing learning objectives that would form the basis for the initial training on each macro skill. The Navy may wish to review these component skills against the learning objectives of current training that addresses life skills to ensure that key component skills are covered and to make any needed revisions.

Table 8. Component life and leadership skills and micro applications for planning and organization

Macro skills	Component life skills	Component leadership skills	Sample micro applications
<i>Planning and organization</i> [65-69]	Identifies more critical and less critical activities and assignments; adjusts priorities when appropriate.	Takes advantage of available resources (individuals, processes, departments, and tools) to complete work efficiently.	Career planning
	Develops or uses systems to organize and keep track of information.	Keeps clear, detailed records of activities related to accomplishing stated objectives.	Family planning
	Allocates appropriate amounts of time for completing work; avoids scheduling conflicts; develops timelines and milestones.	Defines tasks and sets priorities and goals for subordinates and work groups with an appropriate sense of what is most important and the time demand involved. Monitors subordinates' progress toward goals.	Healthy lifestyle
	Uses time effectively and prevents irrelevant issues or distractions from interfering with work completion.	Manages organizational processes (such as technology, subunit structuring, and information and measurement systems) and integrates planning across work units.	Leadership training
	Keeps track of activities completed and yet to do, to accomplish stated objectives.	Masters system-wide maintenance and direction of the organization, and assesses the environment outside the organization.	Personal financial management
		Develops organization's mission, vision, and core values.	Responsible alcohol and prescription drug use

Source: CNA.

Frequency of life skill training

The literature on skill acquisition and behavior change is consistent in the finding that skill acquisition is not a one-time event. The National Research Council (NRC) draws on a wide body of literature to identify two laws of skill acquisition that relate to frequency of skill instruction. First, the *power law of practice* states that acquiring skill takes time, often requiring hundreds or thousands of instances of practice in retrieving a piece of information or executing a procedure. Second, *knowledge of results* means that individuals acquire a skill more rapidly if they receive feedback about the correctness of their actions and the nature of any mistakes. NRC asserts that practice without feedback produces little learning [37].

Similarly, a recent CNA report that examined the literature on effective programs for building resilience and preventing DBs reported that programs and training aimed at effecting behavior change should be more than a one-time event [9]. One of the principles for effective prevention programs is sufficient dosage—that is, enough intervention to produce the desired effects as well as follow-up sessions or contact as necessary to maintain effects [49]. Research on programs aimed at preventing specific destructive behaviors also emphasize the importance of sufficient dosage. For instance, a systematic review of primary prevention strategies for sexual violence noted that prevention programs with consistently positive effects tended to be two to three times longer than those with null, negative, or mixed effects [70]. Similarly, research on effective programs for preventing substance use disorders emphasize that prevention programs should be long term with follow-up activities to reinforce prevention goals and themes presented in initial program efforts [71-72].

The literature makes clear, then, that life skills need to be refreshed and reinforced periodically, including opportunities for practice and feedback. The life skill literature, however, is not specific about how often individual skills should be reinforced. The touchpoint analysis provided earlier addresses frequency to an extent, in the sense that the universal touchpoints at which specific life skills are likely to need reinforcement occur at given intervals in a Sailor's career.

A more challenging question is the frequency and nature of life skill training and reinforcement that individuals need to address more personalized circumstances. For instance, Sailors who enter the Navy with a background that makes them more prone to DBs and less likely to have developed needed life skills may need more intense and frequent training and reinforcement. Personalizing training for these scenarios would require a method of assessing individual Sailors' life skill deficits and needs. We will discuss assessment in a later section of this report.

Nature and level of skills content

As emphasized in prior sections, initial instruction on the identified skills should occur during the accession phase. Instruction at this phase would take a structured approach to addressing key component skills of each macro skill, including teaching strategies to develop and practice the skills. The component skills in Appendix D provide a starting point to developing strategies to teach and practice the macro skills. In addition, the Army's Comprehensive Soldier & Family Fitness (CSF2) program provides a model for what life skill refresher strategies might look like. Appendix E contains a list of skills and strategies that are the focus of this program. Two examples follow to illustrate the approach:

- *Optimism* (which parallels *positive thinking* on our list): Soldiers are taught to “hunt the good stuff” by recording three good things each day and writing a reflection about each that addresses:
 - Why the good thing happened
 - What this good thing means to you
 - What you can do tomorrow to enable more of the good thing
 - What ways you or others contributed to the good thing
- *Assertive communication* is taught through use of the IDEAL model:
 - Identify and understand the problem.
 - Describe the problem objectively.
 - Express your concerns and how you feel.
 - Ask the other person for his/her perspective and ask for a reasonable change.
 - List the positive outcomes that will occur if the person makes the change [73].

Skills can also be taught or refreshed in the context of specific micro applications. For instance, the skill of *planning and organizing* can be taught in the context of creating individual spending plans during the LifeSkills course, and then these plans can be revisited at key touchpoints, such as at each INDOC and after each deployment. Certainly, once Sailors are in the career continuum phase of the BLC, subsequent instruction on life skills will take the form of refresher sessions in which the strategies are often practiced with micro applications. These refreshers may occur in the context of structured sessions, such as INDOC, ELD courses, Sailor 360 sessions, or FFS classes.

Table 2 provides some specific examples regarding micro applications that might be used to teach or refresh the life skills we selected as most important for postdeployment.⁸ As with the crosswalk of skills/touchpoints presented earlier, this table is a starting point that the Navy might use to map specific micro applications across Sailors' careers.

Table 9. Possible skill micro applications for postdeployment

Skill	Micro applications
Critical thinking	
Problem-solving/decision-making	Personal financial management
Planning & organizing	Career planning
Self-awareness	
Self-efficacy	
Self-regulation	Responsible alcohol use Healthy lifestyle choices Social media use
Self-direction/initiative	Career planning
Perseverance	Accessing resources Healthy lifestyle choices
Positive thinking	Navy core values Accessing resources
Integrity	
Personal responsibility	
Empathy/perspective taking	
Flexibility/adaptability	Career planning
Embracing diversity	
Communication	
Teamwork/collaboration	
Healthy relationships	Promoting and maintaining friendships, couples communication, relationship with children
Conflict resolution	Stress management

Source: CNA.

The SMEs indicated that it would be useful to have a repository of resources to draw on to provide refreshers in life skill training in Sailor 360 and similar contexts. For instance, session facilitators could use a library of case studies, scenarios, and sea stories related to each life skill

⁸ We noted previously that potential micro applications for each skill are in Appendix D.

to structure small group discussions. Leaders who are expected to reinforce life skills through individual coaching and mentoring might benefit from guidance on how to coach Sailors in applying life skill strategies learned during accession training in real-life contexts.

As with frequency, the nature and level of refreshers may be similar at certain universal touchpoints, but some Sailors may need more and different intensity of refreshers and reinforcement to address career or personal factors unique to their own situations. The ability to accurately determine the frequency and level of skill training, enhancement, and refreshment depends on the ability to assess a number of factors, including the level of skills of the individual prior to the training and other considerations that may affect life skill deficits and needs. This issue is discussed below.

Individualizing life skills instruction

Thus far in this report, we have focused primarily on the life skill training that all or most Sailors should receive. We also addressed certain high-probability life events, such as marriage and childbirth. This approach aligns with how the Navy has conducted training traditionally; all non-prior-service Sailors receive the same initial training, regardless of the skills, knowledge, and ability with which they access. Even after accession, training continues to be largely a one-size-fits-all model.

As part of our project task relative to frequency and level of skill content, we were asked to identify individuals' personal factors (background, military experience, on- and off-duty stressors, high-probability life events, etc.) that influence content and frequency. This implies an approach to life and leadership training that does not follow a one-size-fits-all model. We were also asked to identify potential data and information gaps that, if filled, could provide a more complete picture of dosage.

In moving to a fully operational RRL approach to life skill training that takes into account personal factors, however, the Navy would need methods to assess the needs of individual Sailors at key touchpoints and periodically throughout their careers. For instance, the Navy might assess each recruit on the life skills they possess when they enter the Navy and then reassess at key touchpoints to determine which component skills need to be refreshed or enhanced. An individualized assessment could also help identify individual personal factors (e.g., history of substance abuse or family violence) that influence which life skills need to be taught, refreshed, or reinforced, as well as the nature of that training.

The Navy does not currently have a personalized assessment tool that could gather the individual information suggested above. Indeed, our literature review did not discover any commercially available life skill measure that would assess Sailors on the identified skills.

Instruments are available, however, that assess factors associated with, but not a measure of expertise in, a number of life skills. Many of these factors are based on personality traits.

Several SMEs indicated that they administer, or have been administered, a personality assessment tool that was quite helpful for their own self-awareness. SMEs reported that, in some communities (such as Explosive Ordnance Disposal), the assessment tool is used to screen out new recruits who will likely not succeed. We are not able to comment on their effectiveness for measuring our identified life skills, but we think it is useful to describe the assessment tools they mentioned:

- *Hogan assessment* is based on research that indicates the impact of a person's personality on business success. There are five types of Hogan instruments: (1) personality inventory, which provides insight into how people work, how they lead, and how successful they will be; (2) development survey, which describes qualities that emerge in times of increased strain; (3) motives, values, preferences inventory, which identifies core goals, values, drivers, and interests; (4) judgment assessment, which assesses an individual's information-processing style, decision-making approach, decision-making style, reactions to feedback, and openness to feedback and coaching; and (5) business reasoning inventory, which describes a person's ability to evaluate sets of data, make decisions, solve problems, and avoid repeating past mistakes [74].
- *DiSC* stands for dominance, influence, steadiness, and conscientiousness. According to its website, DiSC measures individual tendencies and preferences. It asks about how people respond to challenges, how they influence others, how they respond to rules and procedures, and about their preferred pace of activity [75].
- *Myers-Briggs Type Indicator* is based on the theories of C. G. Jung. It aims to identify individual basic preferences of each of the four dichotomies specified in Jung's theory, and to identify and describe the 16 personality types that result from the interactions of these preferences [76].
- *Big 5 personality traits assessment* assesses people on the personality traits of openness, conscientiousness, extraversion, agreeableness, and neuroticism. There are many Big 5 personality trait tests, and the specific one was not indicated.

In addition to the assessment tools mentioned by SMEs, dozens of other tools measure what the literature refers to as Social and Emotional Learning skills [77], or emotional intelligence (e.g., [14]). The Navy may wish to consider whether to adapt or expand its use of personality inventories or to explore adapting other personality and life skill assessment instruments to assist in tailoring life skill instruction to individual Sailor needs.

In addition to assessments, there may be other indicators that the Navy could use to identify Sailors in need of additional or tailored life skill support. Certainly, COs and other leaders may recognize when Sailors are struggling in their personal and family life and refer them to the appropriate support personnel or agencies. There may be other indicators for issues, such as financial problems. Several SMEs reported that many junior Sailors and new recruits have financial difficulties. Some Sailors access with substantial debt, and others likely incur unmanageable debt after accession, especially after deployment. Financial debt is associated with a number of negative health outcomes, such as stress, anxiety, anger, depression, and suicide ideation [78-79]. The direction of the relationship is unclear; debt may precipitate mental health issues, or mental health issues may play a role for some people in incurring unmanageable debt [80]. Because Sailors are not compelled to reveal their financial situation at accession or throughout their career, the Navy does not know the extent of the financial problems in the force. Understanding who has debt is an important first step in identifying Sailors who would benefit from additional training in such skills as planning, decision-making, and self-regulation, which could help prevent poor financial decisions or help manage financial debt.

A possible solution is for the Navy to consider obtaining the credit scores of all potential enlistees and officer candidates, and to receive scores periodically (e.g., every two years) thereafter. Monitoring credit score trajectories could help to identify servicemembers who shows signs of potential debt problems and would benefit from life skill refreshers, and in some cases, may help to identify members with mental health problems.

We recognize that a great deal of planning and thought is needed to develop the kinds of personalized indicators and assessments discussed in this subsection. Privacy issues will need to be considered, as will the creation of an assessment tool that Sailors would respond to and trust that the responses would not be used against them. For instance, the Army's CSF2 program includes the Global Assessment Tool (GAT), an online assessment that evaluates a soldier's psychological fitness at accession and periodically thereafter [81-82]. Results are confidential, however, which does not lend itself to external identification of soldiers in need of support. The Navy is developing an application called PAL-3 to help Sailors move through the BLC continuum. An area for future study is whether PAL-3 might incorporate a personalized assessment tool that could help the Navy determine how to individualize life skill training.

Summary and Future Directions

We have identified the life and leadership skills that are the most relevant for the Navy's COE efforts. We have also provided a number of universal and variable touchpoints, and component skills and potential micro applications of each skill. Finally, we developed a framework the Navy can use to determine which skills should be learned, refreshed, or enhanced at each touchpoint.

Fundamental to our notion of touchpoints is the belief that all recruits should have the most basic level of all of these skills before they reach their first full duty assignment. Training new recruits in many of these skills may help to reduce attrition and DBs, so offering them as soon as possible, including during DEP—or, if that is not possible, early in RTC—may provide the greatest benefits.

In addition, these skills should be illustrated and enhanced with the specific micro applications, such as sexual assault prevention and responsible drinking, that are appropriate to each Sailor at each specific touchpoint. As these micro applications are addressed, the connection to specific life skills and related strategies should be explicit (e.g., “We are applying the following self-regulation strategies to planning our behavior while on liberty...”).

In addition to these findings, we have concluded the following:

- Which skills should be refreshed or enhanced at each touchpoint depends on (a) the characteristics of the duty or environment Sailors will be in at each touchpoint, (b) the assessed skill levels of the Sailors at the touchpoint, and (c) other characteristics of the Sailors, such as family status and previous DBs.
- These skills need to be refreshed frequently and reinforced consistently. Refreshing and reinforcing does not necessarily require formal training; it could take the form of reminders of the related strategies.
- Navy leaders could benefit by having off-the-shelf curricula to provide training during Sailor 360 sessions or other unit training.
- Numerous opportunities exist to reinforce/refresh these skills. There is likely no need to add more.
- Most of the skills associated with leadership should be, and many already are, incorporated into existing ELD and officer leadership training.

This project is a first step in the Navy applying RRL to life and leadership skill training across Sailors' careers. We have proposed a notional framework within which the Navy can consider

how to determine which skills should be refreshed or enhanced at each touchpoint, but much more work needs to be done to have a scientifically based mapping of skills to touchpoints. Research is needed to determine (1) which skills will help to promote SBs and minimize DBs under differing assignment conditions and for individuals with various levels of skills and contributing factors (e.g., marital status, family members) and (2) which is the best method and frequency with which these skills need to be refreshed.

Possible activities to further develop this work include the following:

- Refine the touchpoint and skill crosswalk (which identifies specific skills that should be taught or refreshed at specific touchpoints) through a survey of a more representative sample of SMEs as well as junior Sailors.
- Review the refined crosswalk against existing curricula to determine the extent to which relevant life skills are already being taught or reinforced at appropriate touchpoints.
- Develop specific strategies for initial instruction on each life skill, including duration, delivery, active learning methods, and micro applications. Experiment with different teaching methods, duration, timing, and frequency, and gather sufficient information to determine the best strategy for each skill.
- Develop a repository of resources and best practices for reinforcing each life skill that COs and other leaders may draw on for use during INDOC, Sailor 360, and other touchpoints.
- Study and test methods to gather individual information that would help personalize Sailors' life skill instruction without endangering trust and violating privacy.

Finally, the information provided in this report can support and reinforce a culture of life skill development and use that can ultimately promote SBs throughout a Sailor's career. For this change to become a prevailing ethos, however, Navy culture must support the model. This means that Navy leadership (at all levels) needs to buy into and reinforce the BLC and the development of life and leadership skills. Further, tying incentives (promotion, assignments, and billets) to the development and demonstration of life and leadership skills reinforces the value of those skills. Taken together, the life and leadership skill framework and leadership buy-in and encouragement can help the Navy develop and maintain a culture of excellence.

Appendix A: Literature Review of Life Skills

Following is a partial list of sources we used for our literature review:

- CNA report archives
- Google Scholar
- Service website
- JSTOR
- ProQuest
- PsychInfo
- RAND
- Defense Technical Information Center
- Reports and documents provided by N17
- Navy training program curricula and documentation

Searches included such terms as *life skills*, *leadership skills*, *soft skills*, *21st Century Skills*, *social and emotional learning*, *touchpoints*, and *dosage*.

We also engaged in discussions with a few subject matter experts (SMEs), including several N17 program directors and leaders, instructors for the Navy LifeSkills course, and SMEs associated with the Army's Comprehensive Soldier and Family Fitness (CSF2) program.

Rationale for teaching life skills

A growing body of economic and personality psychology research shows that certain skills (including cognition and character) are relatively accurate predictors of educational attainment, labor market success, health, and criminality. Research also indicates that character skills (such as self-control, trust, attentiveness, self-efficacy, resilience, openness to experience, empathy, humility, and tolerance of diverse opinions) can be shaped and, relative to raw intelligence, are more malleable until later ages. Researchers conclude, therefore, that adolescent remediation should focus on boosting character [15].

Life skill education and training have come to the forefront in elementary and secondary education and postsecondary contexts in recent years based on research linking these skills to

positive personal, work, community, and civic behavior [12]. Research focused on the workplace indicates that employers view key life skills—such as integrity, interpersonal skills, teamwork, and work ethic—as essential to strong job performance [14].

Despite a paucity of rigorous causal research linking noncognitive skills to later outcomes [15, 37, 83], research indicates that many life skills are correlated with certain outcomes. For instance, self-efficacy is correlated with better psychosocial functioning in children and adolescents, better health behaviors, and higher academic achievement and greater persistence. Grit (or resilience) has been shown to be positively correlated with college grades (including grades for cadets at West Point), positive affect, happiness, life satisfaction, use of learning strategies, and exercise behavior. The research has also found that some of these skills, such as self-control, are correlated with financial stability in adulthood, and reduced crime. Further, there is evidence that students' social-emotional skills are positively correlated with later school performance and psychological well-being [83].

A large body of literature has linked grit/resilience—the capacity to bounce back from stress or disturbance—to positive behaviors and avoidance of DBs [38-40, 84]. In the military context, education and training in life skills are believed to help military servicemembers and their families cope with the unique stressors they experience because of extended separation periods, long workweeks, physical demands of the job, and exposure to injury and death [85].

Research on preventing DBs, including several studies conducted by CNA [9, 54-58, 86-89], also makes clear the importance of offering life skill training early in a Sailor's career because of the link between a number of DBs and age. Traxler and Griffis [58] conducted a comprehensive literature review of 11 DBs (including alcohol and drug abuse, bullying, domestic violence, sexual assault and sexual harassment, and suicide-related behavior). The review identified more than 50 factors associated with one or more DBs, including a tendency for men under the age of 28 to engage in DBs.

Other research has shown that binge and problem drinking peak between the ages of 18 and 25, and are more common for men than women and more common for young adults in college than their peers who are not [90]. Similarly, younger people are more likely than older people to commit certain types of crime (such as drug crimes and sex offenses), and they also account for a higher proportion of motor vehicle accidents, accidental death, and criminal victimization [91]. Guerra et al. [92] explain that young adults are more likely to engage in binge drinking and certain crimes because neurobiological development continues into young adulthood until the brain reaches full maturity (around the mid-twenties). Neurological development at that point can affect high-level skills, such as estimating risk and reward, prioritizing, thinking ahead, self-evaluation, and regulation of emotion. Taken together, this research reinforces the

necessity of teaching life skills early in the Sailor's career, with subsequent reinforcement or enhancement to ensure that the skills are acquired and maintained.

Major life skill frameworks

Our review of the civilian literature on life and leadership skills illustrates that the issues, concerns, and goals of the Navy's COE are shared by other organizations that work with youth and young adults. Consistent throughout the literature is the desire to provide people with the nontechnical skills they need to be productive, happy, healthy contributing members of society and the organizations they serve.

A number of major frameworks for organizing and understanding life skills provide guidance in identifying the key life skills Sailors need to succeed in their Navy careers. Many frameworks focus on skill development for children and youth to prepare them for adult life, but some frameworks are aimed at the young adult population. These frameworks had their genesis in early work by international agencies, including a construct proposed by the Organisation for Economic Co-operation and Development (OECD) in 1997 that defined four pillars of learning: learning to know, to do, to live together or with others, and to be [93]. A more widely cited source is the work of the World Health Organization (WHO), which convened a United Nations interagency meeting in 1998 to generate consensus around a broad definition of the concept of life skills, and on life skill education and strategies. Participants shared varied interpretations of life skills, but there was consensus that the term refers to psychosocial skills: personal, social, interpersonal, cognitive, affective, and universal [12]. The WHO definition was the basis for this succinct definition offered by Kurian: "Life skills refer to a large group of psychosocial and interpersonal skills that promotes mental well-being that leads to a healthy and productive life" [13].

Life skill frameworks typically organize the skills into categories or domains that commonly encompass the psychosocial realm emphasized by WHO, including a focus on personal development, external relations and interactions, communication (sometimes integrated into the external relations category), and thought processes [14]. A related concept is *21st Century Skills*, a term used in education circles to refer to the capabilities people need for work, citizenship, and self-actualization. This concept encompasses the same kinds of psychosocial skills as other frameworks, but it expands to include the skills needed in work, community, and civic contexts [17-18]. Other sources expand the categories further to include practical skills needed for personal, family and community functioning, such as financial literacy [17, 85, 94].

The various frameworks use different terms and constructs to present the essential skills needed. Some frameworks, for instance, use the term *self-regulation* as a skill, while others

categorize it as an overarching competency. Table 10 presents an overview of major frameworks consulted for this report.

Table 10. Overview of major life skills frameworks

Source	Target population	Categories	Sample skills
Search Institute & University of Washington [95]	Ages 18–25	Physical health Psychological/emotional well-being Life skills Ethical behavior Healthy family and social relationships Educational attainment Constructive educational and occupational engagement Civil engagement	Healthy diet Regular exercise and healthy weight Adequate sleep Satisfied with life Self-efficacy Self-regulation Integrity Managing interpersonal conflict Critical thinking Decision-making Collaboration with others Financial responsibility Integrity/honesty Caring for others
University of Chicago Foundations for Young Adult Success [96]	Childhood through adulthood	Self-regulation Agency Integrated identity Competencies	Critical thinking Decision-making Collaboration
National Association of Colleges and Employers [97]	Young adults		Critical thinking/problem-solving Oral/written communication Teamwork/collaboration Digital technology Leadership Professionalism/work ethic Career management Global/intercultural fluency
Harvard University Center on the Developing Child [98-99]	Adult capabilities	Attention Self-regulation Executive function	Planning Focus Self-control Awareness Flexibility

Source	Target population	Categories	Sample skills
Comprehensive Adult Student Assessment System [100]	Youth and adults	Basic communication Community resources Consumer economics Health Employment Government and law Math Learning/thinking skills Independent living	Accomplishing goals Critical thinking Problem-solving
Partnership for 21 st Century Skills [18]	Children and youth	Critical thinking Communication Collaboration Creativity	Decision-making Effective listening/communicating Interpret information Respect diverse teams Flexibility
Collaborative for Academic, Social, and Emotional Learning (CASEL) [101]	Children and youth	Self-awareness Self-management Responsible decision-making Relationship skills Social awareness	Identify emotions Impulse control Identifying problems Communication Empathy
North Central Regional Educational Laboratory [102]	Children and youth	Digital-age literacy Effective communication Inventive thinking High productivity	Multicultural literacy Global awareness Adaptability Self-direction Collaboration Planning

In addition to reviewing the civilian literature, we explored the skills covered in life skill courses offered in the military services. Sources consulted included a 2018 CNA study that compared effective approaches for building resilience and preventing DBs with current Navy training [9], as well as curriculum materials for the Navy LifeSkills course and related training [8, 103-104], Army resilience training, and other curricula for military servicemembers and families [85, 105]. Although military life skill training appeared less inclined to organize life skills into larger domains, there was overlap with the civilian literature in the kinds of skills that are covered. For instance, Table 11 displays key life skills that parallel the skills identified in civilian literature, as covered by three major military life skill programs: the Navy LifeSkills course, the Army's CSF2 program, and the Essential Life Skills for Military Families (ELSMF) course.

Table 11. Life skills covered in selected military courses

Navy LifeSkills course	Army CSF2 program	ELSMF course
Accountability	Communication	Communication
Decision-making	Leadership	Conflict resolution
Diversity/equal opportunity	Mental agility	Problem-solving
Healthy lifestyle	Optimism	Reflective listening
Healthy relationships	Relationship skills	Stress management
Leadership	Self-awareness	
Navy core values	Self-regulation	
Stress management	Teamwork	
Teamwork		

Sources: Navy LifeSkills course documents [8, 103], Army CSF2 Master Resilience Trainer Skills Overview [106], and ELSMF research [85, 105].

Despite organizational and terminology differences, there is considerable alignment between the categories and skills used in the various frameworks and military sources. Although skill lists we reviewed were not identical, a number of skills were common across sources, which we display in Table 12.

Table 12. Common life skills in the literature

Skill
Accountability and personal responsibility
Civic literacy and responsibility
Communication skills
Conflict resolution
Connections to/use of resources
Creative, innovative thinking
Critical thinking, problem-solving
Decision-making
Empathy
Ethical reasoning and decision-making
Flexibility, adaptability
Goal-setting and self-efficacy
Healthy lifestyle choices
Healthy relationships
Help-seeking

Skill
Leadership skills
Multicultural literacy, diversity, tolerance
Parenting
Planning, organizational skills
Resilience
Self-awareness
Stress management and emotional regulation
Teamwork, collaboration

Sources: [8-9, 12-14, 16-17, 20, 37, 85, 94-99, 102-103, 105-110].

National Research Council framework

We identified the National Research Council (NRC) framework [37] as most relevant for our purposes because it encompasses the skills that are common across major frameworks and military sources, and because it also links skills with personality traits. The NRC framework identifies three domains of competence, each of which is measured and studied in different ways: cognitive, intrapersonal, and interpersonal. The cognitive domain is typically measured by tests of general cognitive ability or specific subject matter tests. In contrast, intrapersonal and interpersonal competencies are often measured by means of broad personality traits. Although the domains are distinct in some ways, interrelationships exist. For instance, research has found that intrapersonal and interpersonal skills support academic learning, whereas cognitive skills have a positive impact on interpersonal skills.

An attractive aspect of the NRC framework is that it connects competencies and skills to personality traits. In addition, NRC developers cite recent research suggesting that cognitive ability changes over time, and that the traits of conscientiousness and agreeableness increase throughout early and middle adulthood. Thus, a framework that links personality traits to life skills could be useful if the Navy wishes to offer personalized training to Sailors with specific traits in the future, a topic we will address in our final paper. The NRC framework, including linkages with personality traits, is shown in Table 13.

Table 13. NRC 21st Century Skills framework

Domain	Cluster	21st Century Skill	Main ability/ personality trait
Cognitive Competencies	Cognitive Processes and Strategies	Critical thinking, problem-solving, analysis, reasoning/argumentation, interpretation, decision-making, adaptive learning, executive function	Ability factor: Fluid Intelligence
	Knowledge	Information literacy (research using evidence and recognizing bias in sources), information and communications technology literacy, oral and written communication, active listening	Ability factor: Crystallized intelligence
	Creativity	Creativity, innovation	Ability factor: General retrieval ability
Intrapersonal Competencies	Intellectual Openness	Flexibility, adaptability, artistic and cultural appreciation, personal and social responsibility (including cultural awareness and competence), appreciation for diversity, continuous learning, intellectual interest and curiosity	Personality factor: Openness
	Work Ethic/ Conscientiousness	Initiative, self-direction, responsibility, perseverance, productivity, grit, Type 1 self-regulation (metacognitive skills including forethought, performance, and self-reflection), professionalism/ethics, integrity, citizenship, career orientation	Personality factor: Conscientiousness
	Positive Core Self-Evaluation	Type 2 self-regulation (self-monitoring, self-evaluation, self-reinforcement), physical and psychological health	Personality factor: Emotional stability (opposite of neuroticism)
Interpersonal Competencies	Teamwork and Collaboration	Communication, collaboration, teamwork, cooperation, coordination, interpersonal skills, empathy/perspective taking, trust, service orientation, conflict resolution, negotiation	Personality factor: Agreeableness
	Leadership	Leadership, responsibility, assertive communication, self-presentation, social influence with others	Personality factor: Extroversion

Source: National Research Council [37].

Appendix B: Definitions of Life Skills

In Table 14, we list life skills and their definitions. These definitions are based on a review of definitions from multiple sources, as indicated by citations in the table. We selected definitions from these sources that we considered were the most applicable or integrated key ideas from multiple definitions to ensure applicability to the Navy context.

Table 14. Life skill definitions

Life skill	Definition
Critical thinking/reasoning	The process of using logic and analysis to consider different approaches or solutions to problems, topics, or ideas and to draw conclusions based on this analysis [111-114]
Problem-solving	The use of critical thinking and reasoning to find solutions to the challenges presented in pursuing a desired goal [112, 115-116]
Decision-making	The process of making reasoned choices among alternatives that range from clear-cut to complex [112, 115]
Planning and organization	The ability to develop appropriate, comprehensive, realistic short- and long-range courses of action that meet personal, professional, or organizational goals [115, 117]
Self-awareness	The ability to understand one's own thoughts, feelings, and behaviors relative to a situation [118-119]
Self-efficacy	The belief that one can successfully identify and perform actions that will produce the desired results [112, 115, 120]
Self-regulation	The act of controlling one's emotions and behavior to achieve short- and long-term goals, even when confronted with internal and external challenges [37, 112]
Self-direction/initiative	The ability to identify and execute actions, without direction from others, to gain knowledge, solve problems, or improve personal or organizational functioning [115-116]

Life skill	Definition
Perseverance	Maintenance of a course of action despite the obstacles or effort involved [112]
Positive thinking	A technique for identifying the hopeful or “good” aspects of a situation and considering how to leverage those aspects toward desirable future outcomes [115, 121]
Integrity	The ability to be honest, fair, ethical, and morally consistent with oneself and others [112, 115-116]
Flexibility/adaptability	Willingness and ability to respond quickly and productively to unforeseen circumstances, multiple demands, shifting priorities, ambiguity, adversity, and rapid change [112, 116-117]
Personal responsibility	The act of assuming ownership for one’s thoughts and actions without blaming others or expecting others to perform the actions [122-124]
Appreciation for and embracing diversity	Willingness and ability to learn about and understand the customs and cultures of other individuals or groups, and to adjust approaches and behaviors to show respect and maintain positive relationships with those individuals and groups [125]
Communication	Verbal or nonverbal exchange of information, ideas, and feelings between or among individuals or groups that can result in understanding [112, 115-116]
Teamwork/collaboration	The combined actions of two or more people working together to achieve a common goal [112, 115]
Healthy relationships	The ability to communicate and interact appropriately with others [126-127]
Empathy/perspective-taking	The ability to understand and feel concern for the feelings, reactions, or experiences of others by imagining what it would be like to be in their situations [112, 115]
Conflict resolution	The ability to identify and execute strategies that reduce discord and friction between individuals or groups [112]

Source: CNA definitions based on cited sources.

Appendix C: Literature Review of Leadership Skills

In alignment with our life skills discussion (see Appendix A), we organize our review of the leadership skills literature according to the NRC framework. We provided definitions of each of the life skills in Appendix B; in this appendix, we provide more detail regarding how these skills manifest themselves as individuals apply the identified life skills in leadership contexts (moving from “me” to “us”).

Cognitive domain

In the cognitive domain, the leadership literature identifies several skills that are similar to, or represent an evolution of, the life skills identified earlier. Cognitive skills are considered in several studies to be the foundation of leadership skills [111, 128]. Certain cognitive skill requirements, such as general mental ability (“fluid” intelligence—abilities associated with working memory, information processing, and abstract reasoning) or “crystallized” intelligence, are thought to be important across organizational levels [111], and leadership research examining managers’ activities suggests that much managers’ time is spent performing tasks involving cognitive skills [129].

In general, cognitive skills are composed of those skills related to basic mental capacities, including the following [111]:

- Information collecting, processing, and disseminating [130-132]
- Learning capacity [133], which encompasses active learning skills [134] and critical thinking and reasoning [129]

For leaders, critical thinking and reasoning skills involve the ability to use logic and analysis to identify strengths and weaknesses of different approaches to tasks or problems [111]. They can also refer to the general capability of a decision-maker to make logically correct or principled choices (by, for example, avoiding biases or other inappropriate decision processes or heuristics) [135].

At higher levels, leaders require more complex strategic and conceptual skills compared to leaders in lower levels of the organization who require greater technical skill.⁹ Senior leaders must be better able to deal with abstract mental constructs, and they must be more integrative and able to take a system-wide perspective in their thinking, compared with leaders at lower organizational levels [111, 136-142].

Conceptual skills include the ability to think through hypothetical concepts or scenarios, identify key cause-and-effect relationships, and forecast the future consequences of different courses of action. Leaders who are skilled decision-makers are comfortable with “what-if” scenarios and can simulate events, processes, and sequences of actions in their heads. They can also simulate the thinking of other people with whom they are dealing, which helps the leader to understand the situation, to effectively communicate which course of action is to be taken and why, and to predict how others will react to the chosen course of action. This type of high-level, conceptual thinking improves the organization’s ability to forecast the downstream consequences of organizational decisions and thus to allocate resources and effort more effectively [137, 143-146].

Leaders initially require basic problem-solving concepts and principles, and apply them to structured problems with parameters defined for them by higher level leaders. At higher organization levels, however, the complexity of required problem-solving skills increases. At mid-levels, for example, leaders are dealing with problems that are less well structured, perhaps with multiple components. Such problems require more complex and creative problem-solving skills and an increased ability to evaluate solutions. At senior levels of the organization, leaders become responsible for problem identification—determining the true nature of problems faced by the organization, and prioritizing them. The nature of the problems dealt with—increasingly novel and challenging, and taking into account a longer time span—becomes more complex as well. Solution appraisal and objective evaluation skills, in which leaders learn about the complex characteristics of problem solutions and evaluate alternative courses of action to solve organizational problems, become more important [146-148].

Closely related to problem-solving is decision-making, meaning sound judgment and an ability to make timely, effective decisions even under conditions of uncertainty or ambiguity (or, as Leonard et al. (2006) phrase it, the ability to make “a good enough decision soon enough to count”) [117, 119].

⁹ Technical skill means expertise or proficiency in a particular area of work, based on specific knowledge, or proficiency in working with processes, things, and/or objects. Katz (1974) argues that technical skills become less important as the leader advances up the organization [136-137].

Effective planning/organizing—the ability to develop appropriate, comprehensive, realistic short- and long-range courses of action that meet organizational goals—is also an important leadership skill [117]. The types of planning and organizing activities that leaders must undertake differ by organizational level. At lower or junior levels, planning tasks typically involve defining tasks and setting priorities and goals for subordinates and work groups, and monitoring progress toward those goals. At mid-level, the ability to manage organizational processes (such as technology, the structuring of subunits, and information and measurement systems) becomes important, as does the ability to integrate planning across work units. At senior levels, effective leaders must master system-wide maintenance and direction of the organization, and develop an ability to assess the environment outside the organization.

The time horizon for planning also differs according to the leader's position in the organization. At low levels, leaders may plan for a time horizon of a matter of weeks or months; at senior levels, leaders must plan for years or even decades into the future.

Intrapersonal domain

Alignment with life skills is also evident in the intrapersonal domain. One essential aspect of effective leadership is the execution and monitoring role of a leader—the commitment to getting his or her vision implemented [149-150].¹⁰ There is some evidence that the CEO's ability to execute a strategy is positively related to the success of companies involved in buyouts and venture capital transactions [152]. This is closely related to the intrapersonal skills of self-direction/initiative and perseverance. A second, and related, characteristic that has been associated with effective leadership is consistency, which can be defined as resoluteness, independence, objectivity, conviction, and/or the ability to resist outside pressures in undertaking leadership functions.¹¹

Brunnermeier, Bolton, and Veldkamp (2010) argue that two closely linked leadership priorities for high-level leaders such as CEOs are (1) choosing an appropriate vision or strategy for the organization and (2) coordinating the activities of the people in the organization around the strategy. In such a framework, consistency or resoluteness means that the leader trusts his or her opinion or information more than others' opinions/information and will not be easily swayed to change course in terms of the direction he or she sets for the organization. This

¹⁰ Management consultant and author Peter Drucker (1967) argued that the one common characteristic of the broad range of corporate executives he observed over the course of his career was that they were able to “get the right things done.” That is, they combined the visioning skills of choosing an appropriate strategy for the organization, and the execution skills to get the strategy implemented [151-152].

¹¹ The concept is related to the literature on “authentic leadership” (e.g., Kernis and Goldman (2006) [153]).

consistency can be thought of as a commitment device to achieve greater coordination within the organization, making it more likely that the strategy will be effectively executed. In this view, consistency leads to more effective coordination because a strategy that is fully credible and effectively communicated to followers is more likely to elicit follower behavior that is aligned with that strategy. Consistency on the part of the leader, in turn, makes it easier to achieve the credibility and effective communication that is necessary for successful execution of the strategy [149].

Another related aspect of leadership consistency that has featured prominently in the psychology literature is the need for accuracy in behavioral signaling, defined as the need for leaders to clearly display their intentions to organization members. When a leader's behavior is ambiguous, there can be negative consequences for followers' motivation and performance, particularly if that behavior appears hypocritical. To avoid this outcome, leaders need the following characteristics:

- Self-awareness—to regularly review their own behavior to understand the signals they are sending to organization members
- Consistency—to uphold commitment to the organization's mission, values, and culture, even in uncertain or difficult times [154-155]¹²

Affective commitment, or commitment to the well-being of the organization, is an individual's level of emotional attachment to, identification with, and involvement in the organization. It involves attention and concern for achieving organizational tasks and outcomes, the pursuit of aggressive goals, the setting of high performance standards, and the willingness of leadership to sacrifice self-gain for the well-being of others or the organization as a whole [156].

Leaders are also responsible for setting group norms—legitimate, shared standards against which appropriateness of member behavior can be evaluated—within an organization. Such norms represent regular behavior patterns that are relatively stable and expected by organization members, and that influence how members perceive and interact with one another. Especially important in this regard are the establishment of norms that facilitate group identification and cooperation among organization members [154].

Self-awareness, the understanding of one's own capabilities and limitations relative to a situation, has been identified as an important personal characteristic associated with effective leadership, often in combination with other attributes [119, 138, 153]. For example, self-awareness combined with active learning has been termed “absorptive capacity” (the ability

¹² Leader behavior—the issues or tasks they focus their time on, the questions they ask (or fail to ask) of other organization members, etc.—communicates to members evidence about the leader's priorities in terms of what counts in the organization and which behaviors are likely to be rewarded or punished [154].

to learn by recognizing new information, assimilating it, and applying it) and has been identified as one of two key leadership competencies by the US Army [157-158]. Self-awareness combined with consistency facilitates the accuracy in behavioral signaling by leaders that is important in the effective use of culture as a tool to influence followers [154].

Interpersonal domain

Interpersonal domain skills involve the ability to socially interact with and influence others [111]. Leadership positions at all levels of an organization involve a significant amount of interpersonal interaction, persuasion, and coordination [132]. Further, leadership research suggests that much of managers' time is spent performing tasks involving oral and written communication [129]. Again, commonly cited interpersonal skills show alignment and/or overlap with the life skills identified earlier. For instance, effective communication skills combine aspects of both cognitive and interpersonal skills. At its base, effective communication is about sending and receiving clear message to and from other members of the organization [136, 144]. In fact, one of the highest priorities of leadership is combining consistency with effective communication: sending clear and consistent signals about the organization's values, norms, and mission to followers across the organization [154]. The importance of effective communication skills as a leadership competency is one of the most often repeated themes in the leadership skills literature [111, 129, 138, 149, 159].

Communication skills include oral communication skills, such as speaking (the ability to convey information such as what needs to be done and why) and active listening (achieving better understanding of a situation by asking the right questions of the right people). Written communication skills, such as writing ability (including the ability to tailor effectively messages to specific audiences) and reading comprehension (to understand large amounts of written information), are also fundamental [111, 132, 148, 160-164]. Effective communication skills are central to a large number of other leadership priorities, including (1) the ability to execute the leader's strategy or vision, (2) the ability to acquire information about what is the best strategy, (3) the establishment of an organizational culture, and (4) the effective direction, persuasion, negotiation, constructive conflict management, and coordination of the organization's activities [129, 138, 149, 159].

Two-way communication encourages exchanges of views between leaders and other members of the organization and involves such behaviors as active listening (listening to others and asking appropriate questions), active solicitation of opposing points of view, and fair-minded consideration of differing opinions [111, 153]. When other members of an organization, including a leader's subordinates, have important information, getting good feedback, ideas, and information from others through two-way communication can be vital to effective

organizational decision-making [149]. There is some evidence, however, that leaders at higher organization levels who must develop more complex cognitive and interpersonal skills, as well as new business and strategic skills, may be forced to place less emphasis on two-way communication because of cognitive and/or attention span limitations [165].

According to Chatman and Kennedy (2010), a fundamental leadership role is to set the context for others in the organization to be successful by helping members to internalize organizational objectives so that people can make decisions and perform tasks that are aligned with the organization's values on their own, without necessarily receiving explicit direction [154]. This suggests the importance of supportive behavior on the part of leaders.

The idea of a directive versus supportive model of leadership comes out of the Situational Leadership Model literature. The idea is that, depending on the specific situation, leaders may have to be comfortable adopting either a directive or supportive style of leadership toward subordinates. While directive behavior tends to be instructive, with clear descriptions of what, how, and when tasks should be done, supportive behavior tends to focus on helping organization members develop their own capabilities to become self-reliant, productive performers. Supportive behaviors can include providing praise or feedback to an employee, or asking for input. More broadly, a supportive approach to leadership may involve the leader allocating more day-to-day decision-making authority to subordinates, while making himself or herself available for collaboration and joint problem-solving as needed [67, 166-167].

The amount and degree of directive versus supportive behavior required varies across subordinates, and even over time with respect to a given individual subordinate as the context or situation changes. In the Situational Leadership Model, the leader adapts his or her behavior based on the needs and level of commitment of the follower to organizational goals. For example, an organization member undertaking an assignment for the first time may require more directive leadership compared to a more experienced member who has performed the task before. Leaders are expected to be able to reach agreement with subordinates on how much direction and support they need [67, 167].

The mix of supportive and directive behavior required may also vary according to organizational level. There is evidence that, at lower levels of an organization, more directive leadership behaviors are most effective. At the middle levels of organizations, however, more supportive leadership behaviors (such as showing empathy and concern, caring about others, putting people at ease, and getting along) were associated with improved leadership outcomes. At the senior level, empowering leadership behaviors (such as delegating, encouraging initiative, using participative decision-making, and developing people) have been associated with better leadership outcomes [165, 168].

The ability to coach and develop an organization's members is another important aspect of supportive leadership behavior. Strong supportive leaders can recognize individual strengths and weaknesses and promote self-development by, for example, assigning projects based on individual ability and skill development needs [67]. Effective coaching may require different mixes of directive and supportive behaviors depending on the characteristics of the subordinate. In terms of coaching work groups or team members, Hackman and Wageman (2005) suggest that coaching should focus on task-relevant issues and that the type of coaching offered should be timed with phases of team evolution [154, 169].¹³

The leadership literature includes additional categories referred to as business (or organizational) skills and strategic skills [111]. We consider these more technical in nature with respect to specific leadership roles (e.g., organizational visioning) and we focus our attention on leadership skills that fall into the three domains of interest.

Alignment with Navy leadership frameworks

Key Navy leadership documents indicate strong alignment with the kinds of leadership skills cited in the social science literature. The *Navy Leader Development Framework* [59] outlines how the Navy will “develop leaders who demonstrate operational excellence, strong character, and resilience through community at every level of seniority.” The emphasis on key life skills is evident in items 2 and 3 of the framework's three leadership “lanes”: (1) operational and warfighting competence, (2) character, and (3) intellectual and personal connections.

The *Navy Leader Development Framework* also suggests the importance of leadership skills that focus on supporting the skill development of others. For instance, the framework notes that teachers, coaches, and trainers are central to developing leaders along the path. Teachers transfer knowledge, whereas coaches and trainers develop habits and skills through drills and routines. Mentors are expected to develop personal and longer term involvement with their mentees. In the next step of mentorship—advocacy—mentors seek professional opportunities for their mentees to do well and grow.

The second document, *Laying the Keel* [63], targets enlisted leadership and indicates that Navy leaders must be “flexible, innovative, and confident.” *Laying the Keel* consists of three lines of effort that emphasize foundational life skills while expanding the progression of skills,

¹³ For example, motivational coaching that addresses team effort and encouraging shared commitment to the group should be emphasized at early phases of team development. Strategic coaching that addresses performance strategy and fostering work improvements aligned with the task requirements can be emphasized later on [154, 170].

including leadership: (1) formal courses that focus on character, ethics, leadership, the profession of arms, self-awareness, and decision-making; (2) Sailor 360, an initiative to introduce seven leadership elements to Sailors below the rank of E-7 (alignment, habits, training, education, opportunity, feedback, and self-awareness); and (3) continuous coaching, mentoring, and advocacy [63, 171].

Mentoring and advocacy are significant components of Navy leadership, as we have described. We do not consider these as separate skills but rather as component skills of other macro skills. For instance, mentors need to be able to set and meet goals for themselves and their mentees, and this includes the skills of planning and self-initiative. Both mentors and mentees require good communication skills, such as active listening, feedback, and difficult conversations.

Appendix D: Component Skills

In Table 15, we identify the content, which we refer to as component skills, for each of the skills we have identified. The second column provides the component skills as they pertain to life skills (me), the third column provides examples of component skills as they pertain to leadership (us), and the last column provides examples of potential micro-applications.

Table 15. Component skills

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Critical thinking/ reasoning [100, 111, 129, 134, 172- 175]</i>	<ul style="list-style-type: none"> • Accurately identifies own assumptions, as well as those of others. • Judges the logical strengths of arguments. • Provides alternative explanations for a pattern of results that has many possible causes. • Identifies additional information needed to evaluate a hypothesis • Separates relevant from irrelevant information. 	<ul style="list-style-type: none"> • Accurately identifies the stereotypes, prejudices, biases, and distortions in the views of others. • Learns by recognizing new information, assimilating it, and applying it. • Thinks through hypothetical concepts or scenarios, identifies key cause-and-effect relationships, and forecasts the future consequences of different courses of action. • Identifies a conclusion and thoroughly evaluates implications and consequences. 	<ul style="list-style-type: none"> • Technical skills training • Leadership training
Problem-solving/ decision-making [65, 100, 111, 116- 117, 119, 135-136, 140, 148, 176-179]	<ul style="list-style-type: none"> • Identifies a problem and its possible causes. • Accesses information using effective, well-designed search strategies and most appropriate information sources. 	<ul style="list-style-type: none"> • Considers factors involved in making decisions, such as goals, constraints, consequences, alternatives, and input from others. • Includes others in the decision-making process as warranted. 	<ul style="list-style-type: none"> • Bystander intervention • Family planning • Leadership training • Navy Core Values • Personal financial management

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<ul style="list-style-type: none">Creates relevant options for addressing problems/ opportunities and achieving desired outcomes.Evaluates the outcome of an implemented solution and suggest modifications to the solution as needed.	<p>Allocates day-to-day decision-making authority to subordinates.</p> <ul style="list-style-type: none">Understands how much time is available to make a decision and knows the consequences of missing the deadline.Knows whether spending more time improves the quality of the decision.Determines who has responsibility for making and implementing the decision.Knows who will be affected if something goes wrong.Reviews past examples, events, or situations to identify whether one (or more) can serve as a "model" for a current problem, and applies lessons to solving the current problem. <p>Integrates "systems" thinking, creating a "holistic" picture incorporating different views of a problem.</p>	<ul style="list-style-type: none">Responsible alcohol and prescription drug useSuicide prevention

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Planning and organization [65-69]</i>	<ul style="list-style-type: none">• Identifies more critical and less critical activities and assignments; adjusts priorities when appropriate.• Develops or uses systems to organize and keep track of information.• Allocates appropriate amounts of time for completing work; avoids scheduling conflicts; develops timelines and milestones.• Uses time effectively and prevents irrelevant issues or distractions from interfering with work completion.• Keeps track of activities completed and yet to do, to accomplish stated objectives.	<ul style="list-style-type: none">• Takes advantage of available resources (individuals, processes, departments, and tools) to complete work efficiently.• Keeps clear, detailed records of activities related to accomplishing stated objectives.• Defines tasks and sets priorities and goals for subordinates and work groups with an appropriate sense of what is most important and the time demand involved. Monitors subordinates' progress toward goals.• Manages organizational processes (such as technology, subunit structuring, and information and measurement systems) and integrates planning across work units.• Masters system-wide maintenance and direction of the organization, and assesses the	<ul style="list-style-type: none">• Career planning• Family planning• Healthy lifestyle• Leadership training• Personal financial management• Responsible alcohol and prescription drug use

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
		environment outside the organization. Develops organization’s mission, vision, and core values.	
<i>Self-awareness</i> [68-69, 100, 111, 129, 136, 148, 154, 156, 161, 163, 168, 180-183]	<ul style="list-style-type: none">Identifies personal values, activities, interests, abilities, and aptitudes.Sets priorities to build personal strengths and identifies areas for improvement.Recognizes and identifies one’s own emotional response to stimuli and situations.Identifies sources of stress and resources for reducing stress.Uses self-reflection to assess one’s behavior for authenticity, honesty, respect, and alignment with personal values. Recognizes and understands one's own thought processes	<ul style="list-style-type: none">Regularly reviews own behavior to ensure consistency and alignment with organizational mission, values, and culture.Solicits input and feedback from superiors and subordinates.Asks for help when needed.Recognizes subordinates’ strengths and weaknesses; mentors and coaches them to develop their own capabilities and self-development.Provides praise or feedback as appropriate.Chooses and implements appropriate mix of directive and supportive behaviors depending	<ul style="list-style-type: none">Help-seekingSexual assaultSexual harassmentStress management (Operational Stress Control, or OSC)Suicide prevention

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Self-efficacy</i> [68-69, 111, 129, 136, 148, 161, 163, 168, 180, 182-184]	<ul style="list-style-type: none"> • Asks questions to develop further personal understanding. • Demonstrates confidence in sharing ideas/feelings. • Demonstrates an accurate and clear set of goals, abilities, need, and know how to request and/or acquire them. • Maintains a “growth mindset” about own abilities to succeed and grow and, and persists through challenges. 	<ul style="list-style-type: none"> • on the characteristics of the subordinate and phase of team evolution. • Understands others’ potential reactions to events or decisions, and the reasons people react as they do. 	<ul style="list-style-type: none"> • Career planning • Healthy lifestyle • Leadership training • Sexual harassment • Sexual assault
<i>Self-regulation</i> [68-69, 100, 111, 129, 136, 148, 161, 163, 168, 180-184]	<ul style="list-style-type: none"> • Regulates one’s emotions <ul style="list-style-type: none"> ○ Predicts situations that will cause strong emotions. ○ Analyzes how thoughts and emotions affect decision-making and individual success. ○ Discerns differences between effective and ineffective processes 		<ul style="list-style-type: none"> • Healthy Lifestyle • Personal Financial Management • Responsible alcohol and prescription drug use • Sexual assault • Sexual harassment • Social media use • Stress management (OSC)

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<div>for coping with emotions and stress.</div> <div><div>○ Plans and prepares to manage strong emotions.</div><div>○ Identifies constructive ways of dealing with change.</div><div>○ Consistently uses appropriate calming and coping strategies when dealing with strong emotions.</div></div> <div><div>● Regulates one’s behavior</div><div><div>○ Sets specific proximal goals for oneself.</div><div>○ Adopts powerful strategies for attaining the goals.</div><div>○ Monitors one’s performance selectively for signs of progress.</div></div></div>		

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<ul style="list-style-type: none">o Adjusts goals and strategies when needed.		
<i>Self-direction/ Initiative [66, 68-69, 111, 129, 136, 148, 161, 163, 168, 182-183, 185-186]</i>	<ul style="list-style-type: none">• Takes responsibility for personal development and the realization of objectives.• Anticipates what needs to be done.• Achieves results without needing reminders from others.• Digs beneath the obvious to seek needed information, even when not asked to do so.• Asks for additional support, as appropriate, when faced with unfamiliar tasks or situations.• Alert to and responds independently to changes that affect plans.• Does more than is required or expected in the job.		<ul style="list-style-type: none">• Accessing resources• Bystander Intervention• Career planning• Help seeking• Leadership training

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Perseverance:</i> [65, 184, 187]	<ul style="list-style-type: none">• Stays focused on personal, organizational, or learning goals by employing familiar strategies for personal motivation and engagement.• Resists distractions, maintains attention, and continues the task at hand through frustration or challenges.• Actively works to overcome obstacles by changing strategies, doubling efforts, using multiple approaches, etc.• Deals effectively with pressure, ambiguity, and changing priorities.• Recovers quickly from setbacks.		<ul style="list-style-type: none">• Career planning• Healthy lifestyle• Suicide prevention

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Positive thinking</i> [68-69, 100, 111, 129, 136, 148, 161, 163, 168, 182-183, 188-189]	<ul style="list-style-type: none">• Notices and analyzes what is good in one’s daily experience.• Identifies and corrects counterproductive patterns in thinking.• Identifies character strengths in self and others.• Stays focused on the task at hand.• Strives to do the best job possible.• Responds positively to guidance.• Identifies and uses strategies to cope with negative feedback.		<ul style="list-style-type: none">• Accessing resources• Career planning• Suicide prevention

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Integrity [66, 149, 154, 156, 184, 187, 190-191]</i>	<ul style="list-style-type: none">• Behaves in an honest, fair, and ethical manner.• Shows consistency in words and actions.• Accepts responsibility for and corrects errors.• Applies ethical perspectives and concepts to an ethical question, situation, or scenario.• Confronts potentially unethical behavior and reports indiscretions appropriately.• Applies a fundamental understanding of the ethical/legal issues in many contexts including the access and use of information.	<ul style="list-style-type: none">• Consistently demonstrates commitment to organizational well-being (i.e., <i>affective commitment</i>).• Models high standards of ethics.• Clearly displays intentions to superiors, peers, and subordinates.• Consistently and resolutely implements organizational vision and mission	<ul style="list-style-type: none">• Bullying/hazing• Bystander Intervention• Discrimination/ Diversity• Fraternization• Leadership training• Navy Core Values• Sextortion• Sexual Assault• Sexual Harassment

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Personal responsibility</i> [66, 149, 151, 153-154, 163, 186-187]	<ul style="list-style-type: none"> Consistently adheres to prescribed work schedules. Consistently meets deadlines with minimal supervision. Fulfills commitments to peers, co-workers, and supervisor. Complies with established control systems and rules. Accepts responsibility for mistakes. Holds oneself accountable for measurable high-quality, timely, and cost-effective results. 	<ul style="list-style-type: none"> Executes organizational strategies. Cultivates a strong, strategically-relevant organizational culture. Committed to culture of accountability, responsibility, and execution of organization's strategy and tasks. 	<ul style="list-style-type: none"> Bystander intervention Leadership training Navy mission core values
<i>Empathy/perspective taking</i> [68-69, 111, 129, 136, 138, 148, 154, 159, 161, 163, 167-170, 180, 182-183, 192]	<ul style="list-style-type: none"> Demonstrates awareness of other people's emotions, perspectives, and social cues. Demonstrates caring and concern for others, even those who have different views and beliefs. Evaluates verbal, physical, and environmental cues to predict and respond to the emotions of others. 		<ul style="list-style-type: none"> Bullying/hazing Bystander Intervention Discrimination/Diversity Leadership training Sexual assault Sexual Harassment Stress management (OSC)

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Flexibility/ adaptability [65-66, 119, 125, 133-134, 136, 145, 149, 154, 157-158, 193-194]</i>	<ul style="list-style-type: none"> • Tries to understand changes in work tasks, situations, and environment as well as the logic or basis for change; actively seeks information about new work situations. • Treats change and new situations as opportunities for learning or growth; focuses on the beneficial aspects of change; speaks positively about the change to others. • Quickly modifies behavior to deal effectively with changes in the work environment; readily tries new approaches appropriate for new or changed situations; does not persist with ineffective behaviors. 	<ul style="list-style-type: none"> • Makes suggestions for increasing the effectiveness of changes. • Shifts strategy or approach in response to the demands of a situation. • Open-minded when dealing with others. • Handles emergencies or crisis situations. • Adjusts actions/behavior based on others' reactions. • Alters organizational strategy/mission when necessary to maneuver the organization through a period of uncertainty. 	<ul style="list-style-type: none"> • Career planning • Leadership training
<i>Appreciation for and embracing diversity [65, 100, 177, 195]</i>	<ul style="list-style-type: none"> • Seeks out and uses ideas, opinions, and insights from diverse and various sources and individuals; maximizes effectiveness by using 	<ul style="list-style-type: none"> • States the importance of forming, articulating, and modeling a philosophy of leveraging diversity. 	<ul style="list-style-type: none"> • Bullying/hazing • Discrimination/diversity • Leadership training • Sexual assault

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<p>individuals’ particular talents and abilities on tasks or assignments.</p> <ul style="list-style-type: none">• Establishes relationships with and learns more about people of other cultures and backgrounds• Examines own biases and behaviors to avoid stereotypical actions or responses; plans and takes actions that consider the diversity of those involved or affected.• Analyzes how another’s cultural values and social identity affect that person’s behavior.• Engages in self-management when biases are activated. Recognize when these are activated by interpersonal or other organizational actions.• Demonstrates respect for others’ values and customs.	<ul style="list-style-type: none">• Understands that inclusion is critical to the organizational missions, and that this philosophy is articulated both verbally and nonverbally.• Interprets and communicates thoughts and ideas in a way that is relevant to the listener or adjust communication style to meet expectations of audience.• Ensures that members of all demographic groups have equal access and equal opportunities to engage on work-related issues.• Creates an inclusive environment and serves as a role model for inclusion and culturally adaptive behavior.• Recognizes the racial, gender, and ethnic cultural issues in mentoring.• Seeks and uses feedback from diverse sources.	<ul style="list-style-type: none">• Sexual harassment

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
		<ul style="list-style-type: none"> Adjusts approaches and behaviors as necessary to show respect for and maintain positive relationships with people from other groups, organizations, or cultures. 	
<i>Communication</i> [66, 100, 111, 128-131, 136-137, 140, 146, 148, 156, 163-164, 179, 196-197]	<ul style="list-style-type: none"> Uses appropriate verbal behavior (give other person time to talk, keep tone clear and respectful) Uses appropriate language to influence or persuade (e.g., to caution, advise, persuade, negotiate) Uses appropriate language in general social situations (e.g., to greet, introduce, thank, apologize) Uses appropriate listening (look engaged, don't interrupt) Listens carefully to others, paying close attention to the speaker's point of view, thoughts, feelings, and 	<ul style="list-style-type: none"> Effectively follows, clarifies, gives, or provides feedback to instructions. Gives and responds constructively to criticism. Accurately interprets and writes work-related correspondence. Writes work-related correspondence in ways that effectively communicates intent. Reports progress on activities, status of assigned tasks, and problems and other situations affecting job completion. Selects and analyzes work-related information for a given purpose and communicates it to others orally or in writing. 	<ul style="list-style-type: none"> Help-seeking Leadership

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<p>perceptions. Develop active listening skills to enhance communications in multi-cultural contexts or to prevent, solve, or mediate problems when interacting with non-native speakers.</p> <ul style="list-style-type: none"> • Appropriately expresses one's own opinion • Keeps an open mind and avoids making judgments about the speaker. • Concentrates on the main direction of the speaker's message. Tries to understand broadly what they are trying to say overall, as well as the detail of the words that they are using. 	<ul style="list-style-type: none"> • Asks open-ended questions that encourage others to give their viewpoints and is approachable at all times. • Keeps relevant people accurately informed and up-to-date of both positive and potentially negative information. • Achieves better understanding of a situation by asking the right questions of the right people. • Gives fair-minded consideration of differing opinions. • Comprehends large amounts of written information. • Tailors messages to specific audiences. 	

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<i>Teamwork/ collaboration [65-66, 117, 136, 146, 164]</i>	<ul style="list-style-type: none"> • Seeks opportunities—proactively builds effective working relationships with other people. • Clarifies the current situation—probes for and provides information to clarify situations. • Demonstrates respect for the opinions of others. • Identifies and pushes for solutions in which all parties can benefit. • Helps and supports fellow employees in their work to contribute to overall success. • Keeps people informed and up-to-date. • Shares information and own expertise with others to enable them to accomplish group goals. 	<ul style="list-style-type: none"> • Develops others’ and own ideas. Seeks and expands on original ideas, enhances others’ ideas, and contributes own ideas about the issues at hand. • Subordinates personal goals—places higher priority on team or organization goals than on own goals. • Facilitates agreement—gains agreement from partners to support ideas or take partnership-oriented action; uses sound rationale to explain value of actions. • Uses effective interpersonal skills—Establishes good interpersonal relationships by helping people feel valued, appreciated, and included in discussions (enhances self-esteem, empathizes, involves, discloses, supports). 	<ul style="list-style-type: none"> • Family relationships • Intimate partner relationships • Leadership training • Peer relationships

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
		<ul style="list-style-type: none">• Facilitates goal accomplishment— Makes procedural or process suggestions for achieving team goals or performing team functions; provides necessary resources or helps to remove obstacles to help the team accomplish its goals.• Listens to and fully involves others in team decisions and actions; values and uses individual differences and talents. Shares important or relevant information with the team.• Models commitment by adhering to the team’s expectations and guidelines; fulfills team responsibilities; demonstrates personal commitment to the team.• Motivates organization members to take actions that are complementary with the leader’s, and each other’s, in alignment	

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
		<p>with the organization's mission or vision</p> <ul style="list-style-type: none"> • Develops clear, credible organizational strategy, effectively communicates that strategy to the organization's members, and is consistent in executing the strategy. • Assigns responsibilities to others while monitoring performance and coordinating work efforts. 	
<p><i>Healthy relationships [192, 198-200]</i></p>	<ul style="list-style-type: none"> • Uses understanding of how and why others respond in a given situation (e.g., assertive, passive, or aggressive) in order to respond respectfully and effectively with others. • Offers and accepts constructive feedback in order to help others and improve self. • Strives to maintain an objective, non- judgmental tone during disagreements. 		<ul style="list-style-type: none"> • Bullying/hazing • Fraternization • Peer relationships • Family relationships • Intimate partner relationships • Sexual assault • Sexual harassment

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
	<ul style="list-style-type: none">• Uses assertive communication to have needs met without negatively impacting others.• Understands whether conflicts are personal/relational (usually about identify or self-image, important aspects of a relationship such as loyalty, breach of confidence, perceived betrayal or lack of respect), instrumental (about goals, structures, procedures), or conflict of interest (the means of achieving goals are distributed).• Is kind, listens, discloses personal information, shows trustworthiness, is available to take time to build friendship, is forgiving and able to apologize.• Demonstrates empathy.• Practices good communication, teamwork, and conflict resolution skills.		

Macro skills	Component life skills	Component leadership skills	Sample micro-applications
<p><i>Conflict resolution</i> [65, 111, 132, 156, 201]</p>	<ul style="list-style-type: none"> Identifies the problem. Talks about real concerns without blaming or attacking other person. Stays focused on resolving the conflict and avoids personal issues and attacks. Brainstorms solutions with no judging. Agrees upon a solution. Comes up with a plan to carry out the solution. 	<ul style="list-style-type: none"> Opens discussions effectively, establishes a clear and compelling rationale for resolving the conflict. Clarifies the current situation—Collects information from relevant sources to understand the conflict. Views conflict objectively from all sides. Develops others' and own ideas—Presents and seeks potential solutions or positive courses of action. Takes positive action to resolve the conflict in a way that addresses the issue, dissipates the conflict, and maintains the relationship. Closes discussions with clear summaries to ensure that all are aware of agreements and required actions. 	<ul style="list-style-type: none"> Family relationships Intimate partner relationships Leadership training Peer relationships

Appendix E: Army Master Resilience Trainer

Table 16. Army MRT

Goal Setting	
Identify, plan for, and commit to the pursuit of a goal that results in more optimal performance, sustained motivation, and increased effort.	<p>7 Steps of Goal Setting:</p> <ul style="list-style-type: none"> •Step 1: Define your goal •Step 2: Know where you are right now •Step 3: Decide what you need to develop •Step 4: Make a plan for steady improvement •Step 5: Pursue regular action •Step 6: Commit yourself completely •Step 7: Continually monitor your progress
Hunt the Good Stuff	
Hunt the Good Stuff to counter the Negativity Bias, to create positive emotion, and to notice and analyze what is good.	<p>Record three good things each day and write a reflection next to each positive event about one or more of the following topics:</p> <ul style="list-style-type: none"> •Why this good thing happened •What this good thing means to you •What you can do tomorrow to enable more of this good thing •What ways you or others contribute to this good thing
ATC	
Identify your Thoughts about an Activating Event and the Consequences of those Thoughts.	Separate the A (Activating Event) from your T (Thoughts) from the C (Consequences: Emotions and Reactions) in order to understand your reactions to a situation.

Energy Management

Take control of your physical state, bring your focus to the present moment, and perform more optimally.

2 Components of Deliberate Breathing:

- Rhythmic Breathing: Breathe deeply to a slow cadence, focus on your breathing, and unlock muscle tension during exhalation
- ATC Control: Work toward becoming proficient at exerting control over our Thoughts, Emotions, and physical Reactions

Avoid Thinking Traps

Identify and correct counterproductive patterns in thinking through the use of Mental Cues and Critical Questions.

Use the Mental Cues and Critical Questions to identify information you missed because of the Thinking Trap.

- Jumping to Conclusions: Slow Down- What is the evidence?
- Mind Reading: Speak up- Did I express myself? Did I ask for information?
- Me, Me, Me: Look outward- How did others and/or circumstances contribute?
- Them, Them, Them: Look inward- How did I contribute?
- Always, Always, Always: Grab control- What's changeable? What can I control?
- Everything, Everything, Everything: Get specific- What is the specific behavior that explains the situation? What specific area of my life will be affected?

Detect Icebergs

Identify and evaluate core beliefs and core values that fuel out-of-proportion emotions and reactions.

Use the “What” questions in any order to help identify the Iceberg:

- What is the most upsetting part of that for me?
- What does that mean to me?
- What is the worst part of that for me?
- Assuming that is true, what about that is so upsetting to me? Once you’ve identified your Iceberg, think about...
 - whether you still believe/value this Iceberg and consider whether or not the Iceberg is overly rigid in some situations.
 - whether your Iceberg is getting in your way in some situations and what specific actions you would take if you want to change your Iceberg.
 - what you can do to change your emotions or reactions to make these types of situations go better for yourself and others.
 - whether there is a more direct conversation you need to have with someone and what the conversation is about.

Problem-Solving

Identify your thoughts about why the problem happened, identify other factors with Critical Questions, test them for accuracy, and then identify solution strategies:

- Step 1: What’s the problem you’re trying to solve?
- Step 2: What caused the problem?
- Step 3: What did you miss?
- Step 4: What’s the evidence that each factor contributed to the problem?
- Step 5: What really caused the problem?
- Step 6: What can you do about it? Fight the Confirmation Bias: Distance yourself from your thought, ask fair questions to gather the evidence for and against your thought, and consult with others.

Put It In Perspective

Stop catastrophic thinking, reduce anxiety, and improve problem-solving by identifying the Worst, Best, and Most Likely outcomes of a situation.

Identify the Worst, Best, and Most Likely outcomes of a situation in that order and develop a plan for dealing with the Most Likely outcomes:

- Step 1: Describe the Activating Event
- Step 2: Capture Worst Case thoughts and ask, "And then what happens?" or "What else?"
- Step 3: Generate Best Case thoughts and ask, "And then what happens?" or "What else?"
- Step 4: Identify Most Likely outcomes
- Step 5: Develop a plan for dealing with Most Likely outcomes

Mental Games

Change the focus away from counterproductive thinking to enable greater concentration and focus on the task at hand.

Take your mind off of counterproductive thoughts by using games that:

- Require your full attention
- Are hard and fun
- Can be done within a few minutes

Real-Time Resilience

Shut down counterproductive thinking to enable greater concentration and focus on the task at hand.

Fight back against counterproductive thoughts by using the Sentence Starters:

- That's not completely true because...(Evidence)
- A more optimistic way of seeing this is...(Optimism)
- The most likely implication is...and I can...(Perspective)

Avoid the common Pitfalls: Dismissing the grain of truth, minimizing the situation, rationalizing or excusing one's contribution to a problem, and weak responses

Identify Character Strengths in Self and Others

Identify Character Strengths in yourself and in others to build on the best of yourself and the best of others.

Identify your top Character Strengths and those of others and identify ways to use your strengths to increase your effectiveness and strengthen your relationships.

VIA Character Strengths (based on the work of Dr. Christopher Peterson):

- Appreciation of beauty and excellence • Bravery • Capacity to love • Caution, prudence • Citizenship, teamwork • Creativity • Curiosity • Fairness • Forgiveness • Gratitude • Honesty • Hope • Humor • Industry, perseverance • Judgment, critical thinking • Kindness • Leadership • Love of learning • Modesty • Perspective • Self-control and self-regulation • Social intelligence • Spirituality, sense of purpose • Zest

Character Strengths: Challenges and Leadership

Use Character Strengths in yourself and others to overcome challenges, increase team effectiveness and strengthen your leadership.

Identify the Character Strengths you will use and the specific actions those Character Strengths will lead to:

- Name the Character Strengths that were used or will be used.
- Use your Character Strengths to be a more effective leader.
- Draw on Character Strengths of team members for complex challenges.

Assertive Communication

Communicate clearly and with respect, especially during a conflict or challenge. Use the IDEAL Model to communicate in a Confident, Clear, and Controlled manner.

Use the IDEAL Model to communicate assertively:

- I = Identify and understand the problem
- D = Describe the problem objectively
- E = Express your concerns and how you feel
- A = Ask the other person for his/her perspective and ask for a reasonable change
- L = List the positive outcomes that will occur if the person makes the agreed upon change

Effective Praise and Active Constructive Responding	
Praise to build mastery and winning streaks. Respond to others with authentic, active, and constructive interest to build strong relationships.	Create “winning streaks” by using Effective Praise to name strategies, processes, or behaviors that led to the good outcome. Active Constructive Responding is a style of responding to someone’s good news. It is the only style that strengthens the relationship. ACR is based on the work of Dr. Shelly Gable.

Source: [73] and MRT Resource Center (<https://armyfit.army.mil/>).

Note: The six MRT competencies are self-awareness, self-regulation, optimism, mental agility, strengths of character, and connection.

Tables

Table 1.	Fundamental life skills for Sailors	10
Table 2.	Universal touchpoints for enlisted Sailors' life and leadership skills training.....	19
Table 3.	Variable touchpoints for life skill and leadership skill training.....	20
Table 4.	SELRES touchpoints	22
Table 5.	Touchpoints and categories	24
Table 6.	Touchpoint and category crosswalk.....	25
Table 7.	Skill and touchpoint crosswalk.....	28
Table 8.	Component life and leadership skills and micro applications for planning and organization	34
Table 9.	Possible skill micro applications for postdeployment	37
Table 10.	Overview of major life skills frameworks.....	46
Table 11.	Life skills covered in selected military courses.....	48
Table 12.	Common life skills in the literature.....	48
Table 13.	NRC 21st Century Skills framework	50
Table 14.	Life skill definitions	51
Table 15.	Component skills	62
Table 16.	Army MRT.....	82

Abbreviations

AC	Active Component
BLC	behavior learning continuum
CMT	Common Military Training
CO	commanding officer
COE	Culture of Excellence
CSF2	Comprehensive Soldier and Family Fitness
DB	destructive behavior
DEP	Delayed Entry Program
DOD	Department of Defense
ELD	Enlisted Leader Development
ELSMF	Essential Life Skills for Military Families
FFSC	Fleet and Family Support Center
FTS	Full-Time Support
GAT	Global Assessment Tool
INDOC	indoctrination
LDA	leveraging data analytics
MRT	Master Resilience Trainer
NAS	National Academies of Science
NDAA	National Defense Authorization Act
NRC	National Research Council
OECD	Organisation for Economic Co-operation and Development
OCS	Officer Candidate School
OPSEC	Operational Security
P^4	policies, programs, practices, and processes
PACT	Professional Apprenticeship Career Training
PFM	Personal Financial Management
RC	Reserve Component
ROTC	Reserve Officers' Training Corps
RRL	Ready Relevant Learning
RTC	Recruit Training Command

SB	signature behavior
SELRES	Selected Reserve
SME	subject matter expert
TRR	Training Requirement Review
U.S.C.	United States Code
WHO	World Health Organization

References

- [1] Department of the Navy. 2018. "CNSP Calls on Commanders to Drive to a Culture of Excellence." America's Navy: Forged by the Sea. Oct. 20, 2018. Accessed June 3, 2019. https://www.navy.mil/submit/display.asp?story_id=107507.
- [2] Coxwest, Daniel C. 2019. "Navy Leadership Focuses on Sea Power Innovation and a Culture of Excellence." America's Navy: Forged by the Sea. Jan. 16, 2019. Accessed June 7, 2019. https://www.navy.mil/submit/display.asp?story_id=108325.
- [3] U.S. Navy. "Readiness Reform Oversight Committee: One Year Later." Navy Live: The Official Blog of the U.S. Navy. Feb. 26, 2019. Accessed June 7, 2019. <https://navylive.dodlive.mil/2019/02/26/readiness-reform-oversight-committee-one-year-later/>.
- [4] U.S. Navy. Approved Dec. 10, 2018. *Navy Primary Prevention Logic Model*.
- [5] Dixon, T. J. 2019. "Culture of Excellence." Briefing presented at CNA, Arlington, VA, Feb. 13, 2019.
- [6] U.S. Navy. 2018. *LifeSkills A-500-0613*.
- [7] DOD Instruction 1322.31. Feb. 26, 2015, incorporating Change 1, Apr. 11, 2017. *Common Military Training (CMT)*. Accessed July 3, 2019. <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/132231p.pdf?ver=2019-02-15-111234-223>.
- [8] A-500-0613. October 17, 2013. *Training Project Plan for LifeSkills*.
- [9] Kannapel, Patricia, Donald A. Birchler, Deatrick L. Foster, John Hammerer, and Veronica De Allende Birchler. 2018. *Best Teaching Methods for Improving Sailors' Personal Competency Skills*. CNA. DRM-2018-U-017797-Final.
- [10] United States Fleet Forces Command. 2017. *Vision and Guidance for Ready Relevant Learning: Improving Sailor Performance and Enhancing Mission Readiness*. Accessed Jan. 23, 2019. <https://www.public.navy.mil/usff/rri/Documents/PDFs/rri-vision-and-guidance-final.pdf>.
- [11] Clinton-Sherrod, Monique. 2018. "Primary Prevention Campaign Update." CNO Information Brief, Oct. 1, 2018.
- [12] World Health Organization. 1999. *Partners in Life Skills Education: Conclusions from a United Nations Inter-Agency Meeting*. WHO/MNH/MHP/99.2. Accessed Jan. 29, 2019. https://www.who.int/mental_health/media/en/30.pdf.
- [13] Kurian, Aneesh, and Tintu Kurian. 2014. "The Nexus of Life Skills and Social Work Practice." *Social Work Chronicle* 3 (1/2).
- [14] Matteson, Miriam L., Lorien Anderson, and Cynthia Boyden. 2016. "'Soft Skills': A Phrase in Search of Meaning." *Libraries and the Academy* 16 (1): 71-88. doi: 10.1353/pla.2016.0009.
- [15] Heckman, James J., and Tim Kautz. 2013. *Fostering and Measuring Skills: Interventions That Improve Character and Cognition*. National Bureau of Economic Research. NBER Working Paper 19656.

- [16] Carr, Renee Georgene. 2019. "Balancing Out' the Integration of Social and Emotional Learning in School Accountability: A Comparative Case Study of Two Schools' Journeys." PhD dissertation, The George Washington University.
- [17] Dede, Chris. 2009. *Comparing Frameworks for "21st Century Skills"*. Harvard Graduate School of Education. Accessed Jan. 28, 2019. http://stechnology.pbworks.com/f/Dede_%282010%29_Comparing%20Frameworks%20for%2021st%20Century%20Skills.pdf.
- [18] Partnership for 21st Century Skills. 2011. *P21 Common Core Toolkit: A Guide to Aligning the Common Core State Standards with the Framework for 21st Century Skills*. Accessed May 21, 2019. <https://files.eric.ed.gov/fulltext/ED543030.pdf>.
- [19] "Knowledge, Skills & Abilities (KSA)." Sam Houston State University. Accessed July 9, 2019. <https://www.shsu.edu/dept/human-resources/managerstoolkit/KSA.html>.
- [20] Borghans, Lex, Angela Lee Duckworth, James J. Heckman, and Bas ter Weel. 2008. "The Economics and Psychology of Personality Traits." *The Journal of Human Resources* 43 (4): 972-1059. doi: 10.3368/jhr.43.4.972.
- [21] Kankaras, Milos. 2017. *Personality Matters: Relevance and Assessment of Personality Characteristics*. Organisation for Economic Co-operation and Development. OECD Working Paper No. 157. Accessed June 7, 2019. <https://dx.doi.org/10.1787/8a294376-en>.
- [22] McDougall, William. 1932. "Of the Words Character and Personality." *Journal of Personality* 1 (1): 3-16. Accessed July 3, 2019. <https://dx.doi.org/10.1111/j.1467-6494.1932.tb02209.x>.
- [23] Barrick, Murray R., and Michael K. Mount. 1991. "The Big Five Personality Dimensions and Job Performance: A Meta-Analysis." *Personnel Psychology* 44 (1). Accessed June 3, 2019. <https://doi.org/10.1111/j.1744-6570.1991.tb00688.x>.
- [24] Mount, Michael, Remus Ilies, and Erin Johnson. 2006. "Relationship of Personality Traits and Counterproductive Work Behaviors: The Mediating Effects of Job Satisfaction." *Personnel Psychology* 59: 591-622. doi: 10.1111/j.1744-6570.2006.00048.x.
- [25] McCrae, R. R., and A. R. Sutin. 2009. "Openness to Experience." In *Handbook of Individual Differences in Social Behavior*. Edited by M. R. Leary, and R. H. Hoyle. New York: Guilford Press.
- [26] Turiano, Nicholas A., Shawn D. Whiteman, Sarah E. Hampson, Brent W. Roberts, and Daniel K. Mroczek. 2012. "Personality and Substance Use in Midlife: Conscientiousness as a Moderator and the Effects of Trait Change." *Journal of Research in Personality* 46 (3): 295-305. doi: 10.1016/j.jrp.2012.02.009.
- [27] Roberts, Brent W., Nathan R. Kuncel, Rebecca Shiner, Avshalom Caspi, and Lewis R. Goldberg. 2007. "The Power of Personality: The Comparative Validity of Personality Traits, Socioeconomic Status, and Cognitive Ability for Predicting Important Life Outcomes." *Perspectives on Psychological Science* 2: 313-345.
- [28] Lodi-Smith, J. L., J. J. Jackson, T. Bogg, K. Walton, D. Wood, P. D. Harms, and B. W. Roberts. 2010. "Mechanisms of Health: Education and Health-Related Behaviors Partially Mediate the Relationship Between Conscientiousness and Self-Reported Physical Health." *Psychology and Health* 25: 305-319.
- [29] Lee, Matthew R., and Kenneth J. Sher. 2018. "'Maturing Out' of Binge and Problem Drinking." *The Journal of the National Institute on Alcohol Abuse and Alcoholism* 39 (1): 31-42.
- [30] Kern, M. L., and H. S. Friedman. 2008. "Do Conscientious Individuals Live Longer? A Quantitative Review." *Health Psychology* 27: 505-512.

- [31] John, O. P., L. P. Naumann, and C. J. Soto. 2008. "Paradigm Shift to the Integrative Big Five Trait Taxonomy." In *Handbook of Personality: Theory and Research (3rd ed.)*. Edited by Oliver P. John, Richard W. Robins, and Lawrence A. Pervin. New York: Guilford Press, 114-158.
- [32] Hampson, S. E., and H. S. Friedman. 2008. "Personality and Health: A Lifespan Perspective." In *Handbook of Personality: Theory and Research (3rd ed.)*. Edited by Oliver P. John, Richard W. Robins, and Lawrence A. Pervin. New York: Guilford Press.
- [33] Hakulinen, Christian, Marko Elovainio, G. David Batty, Marianna Virtanen, Mika Kivimäki, and Markus Jokela. 2015. "Personality and Alcohol Consumption: Pooled Analysis of 72,949 Adults from Eight Cohort Studies." *Drug and Alcohol Dependence* 151: 110-114. doi: 10.1016/j.drugalcdep.2015.03.008.
- [34] Duggan, K. A., H. S. Friedman, E. A. McDevitt, and S. C. Mednick. 2014. "Personality and Healthy Sleep: The Importance of Conscientiousness and Neuroticism." *PLoS ONE* 9 (3). doi: 10.1371/journal.pone.0090628.
- [35] Bogg, Tim, and Brent W. Roberts. 2004. "Conscientiousness and Health-Related Behaviors: A Meta-Analysis of the Leading Behavioral Contributors to Mortality." *Psychological Bulletin* 130 (6): 887-919. Accessed June 20, 2019. doi: 10.1037/0033-2909.130.6.887.
<https://www.gwern.net/docs/conscientiousness/2004-bogg.pdf>.
- [36] Golfín, Peggy, Patty Kannapel, Tom Geraghty, and Heather Wolters. July 2019. *Life and Leadership Skills in Support of the Navy's Culture of Excellence: Interim Report*. CNA. DRM-2019-U-021531-Final.
- [37] National Research Council. 2012. *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: National Academies Press. doi: 10.17226/13398.
- [38] Ungar, Michael, Marion Brown, Linda Liebenberg, Maria Cheung, and Kathryn Levine. 2008. "Distinguishing Differences in Ways to Resilience Among Canadian Youth." *Canadian Journal of Community Mental Health* 27 (1): 1-13.
- [39] Zolkoski, Staci M., and Lyndal M. Bullock. 2012. "Resilience in Children and Youth: A Review." *Child and Youth Services Review* 34: 2295-2303. Accessed Sept. 13, 2017.
<https://www.pathwayshrc.com.au/wp-content/uploads/2016/11/Resilience-lit-summary.pdf>.
- [40] Khanlou, Nazilla, and Ron Wray. 2014. "A Whole Community Approach Toward Child and Youth Resilience Promotion: A Review of Resilience Literature." *International Journal of Mental Health & Addiction* 12 (1): 74-79. doi: 10.1007/s11469-013-9470-1.
- [41] Downey, Jayne A. 2008. "Recommendations for Fostering Educational Resilience in the Classroom." *Preventing School Failure* 53 (1): 56-64. doi: doi.org/10.3200/PSFL.53.1.56-64.
- [42] Meredith, Lisa S., Cathy D. Shelbourne, Sarah Gaillot, Lydia Hansell, Hans V. Ritschard, Andrew M. Parker, and Glenda Wrenn. 2011. *Promoting Psychological Resilience in the U.S. Military*. RAND. MG-996-OSD. Accessed Nov. 14, 2017.
<http://www.jstor.org/stable/10.7249/j.ctt19rmdbt.13>.
- [43] Brownlee, Keith, Jennine Rawana, Jessica Franks, Julie Harper, Jasmine Bajwa, Erin O'Brien, and Ashley Clarkson. 2013. "A Systemic Review of Strengths and Resilience Outcome Literature Relevant to Children and Adolescents." *Child & Adolescent Social Work* 30 (5): 435-459. doi: 10.1007/s10560-013-0301-9.

- [44] Dong, Frank, Clarice Nelson, Sapna Shah-Haque, Ahsan Khan, and Elizabeth Ablah. 2013. "A Modified CD-RISC: Including Previously Unaccounted for Resilience Variables." *Kansas Journal of Medicine* 6 (1): 11-20. Accessed Mar. 15, 2018. <http://archie.kumc.edu/xmlui/handle/2271/1131>.
- [45] Anthony, Elizabeth K., Catherine F. Alter, and Jeffrey M. Jenson. 2009. "Development of a Risk and Resilience-Based Out-of-School Time Program for Children and Youths." *Social Work* 54 (1): 45-55.
- [46] Brunwasser, Steven M., Jane E. Gillham, and Eric S. Kim. 2009. "A Meta-Analytic Review of the Penn Resiliency Program's Effect on Depressive Symptoms." *Journal of Consulting and Clinical Psychology* 77 (6): 1042-1054. doi: 10.1037/a0017671.
- [47] National Academies of Sciences, Engineering, and Medicine. 2019. *Strengthening the Military Family Readiness System for a Changing American Society*. Edited by Kenneth W. Kizer, and Suzanne Le Menestrel. Washington, DC: The National Academies Press. Accessed Oct. 10, 2019. <https://doi.org/10.17226/25380>.
- [48] Kautz, Tim, James J. Heckman, Ron Diris, Bas ter Weel, and Lex Borghans. Dec. 2014. *Fostering and Measuring Skills: Improving Cognitive and Non-Cognitive Skills to Promote Lifetime Success*. National Bureau of Economic Research. NBER Working Paper 20749.
- [49] Nation, Maury, Cindy Crusto, Abraham Wandersman, Karol L. Kumpfer, Diana Seybolt, Erin Morrissey-Kane, and Katrina Davino. 2003. "What Works in Prevention: Principles of Effective Prevention Programs." *American Psychologist* 58 (6/7): 449-459. doi: 10.1037/0003-066X.58.6-7.449.
- [50] "Navy Personnel Command." Personal Financial Management. Accessed June 25, 2019. https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/readiness/Pages/Personal-Financial-Management.aspx.
- [51] Document provided by N17 at the LifeSkills Course TRR, Feb. 2019. *Financial Literacy Touchpoint Training Matrix*.
- [52] TAP Executive Council. 2014. *The Military Life Cycle Transition Assistance Program (TAP) Implementation Plan*.
- [53] Document provided at LifeSkills Course TRR, Feb. 2019. 2019. *I&D Touchpoints Along the Behavior Learning Continuum Stages*.
- [54] Carey, Neil, Sarah Smedley, Darlene Stafford, and Yolanda Peterson-Jones. 2017. *Evidence-Based Suicide Prevention Communications*. CNA. DRM-2017-U-015009-Final.
- [55] Golfin, Peggy, Gregory Schell, Mikhail Smirnov, and Victor Wu. 2018. *Big Data and Destructive Behaviors in the Navy: What Have We Learned?* CNA. DRM-2018-U-0170920.
- [56] Griffis, Henry, Peggy Golfin, Karen Traxler, and Jerry Cox. 2019 *Relationships Between Destructive Behaviors in the Navy SITREP Reports*. CNA. DAB 2019-U-019624.
- [57] Lien, Diana S., and Laura J. Kelley. 2013. *Risk Factors Associated with Suicide: A Review of the Literature*. CNA. DRM-2013-U-005984-Final.
- [58] Traxler, Karen, and Henry Griffis. Dec. 2018. *Literature Review on the Relationships Between Different Types for Destructive Behaviors*. CNA. DRM-2018-U-018883-REV1.
- [59] United States Navy Chief of Naval Operations. May 2019. *Navy Leader Development Framework Version 3.0*. Accessed July 2, 2019. <https://www.navy.mil/cno/docs/NLDF3May19.pdf>.

- [60] Naval Leadership and Ethics Center. 2018. *Intermediate Leader Development Course (ILDC) Facilitator Guide, Pilot Draft v2*. Course H-570-4504.
- [61] Naval Leadership and Ethics Center. 2018. *Foundational Leader Development Course (FLDC) Facilitator Guide, Final V2*. Course H-570-4503.
- [62] Naval Leadership and Ethics Center. 2018. *Advanced Leader Development Course (ALDC) Facilitator Guide, Final Draft V1*. Course H-570-4505.
- [63] U.S. Navy. May 2019. *Laying the Keel*. Accessed July 2, 2019. <https://www.navy.mil/strategic/190511-LTK.pdf>.
- [64] Naval Leadership and Ethics Center. "Courses." Accessed Oct. 10, 2019. <https://www.public.navy.mil/netc/centers/nlec/Courses.aspx#tab1>.
- [65] Harvard University. *Competency Dictionary*. Cambridge, MA: Author. Accessed July 15, 2019. https://www.campuservices.harvard.edu/system/files/documents/1865/harvard_competency_dictionary_complete.pdf.
- [66] Syracuse University. 2019. "Competency Library." Syracuse University Performance Partnership 2019. Accessed July 23, 2019. <http://performance.syr.edu/competency-library>.
- [67] Blanchard, K., D. Zigarmi, and R. Nelson. 1993. "Situational Leadership After 25 Years: A Retrospective." *Journal of Leadership Studies* 1 (1): 22.
- [68] DeChurch, Leslie A., Nathan J. Hiller, Toshio Murase, Daniel Doty, and Eduardo Salas. 2010. "Leadership Across Levels: Levels of Leaders and Their Levels of Impact." *The Leadership Quarterly* 21: 1069-1085.
- [69] Zaccaro, S. J. 2002. "Organizational Leadership and Social Intelligence." In *Multiple Intelligences and Leadership (LEA's Organization and Management Series)*. Edited by R. E. Riggio, S. E. Murphy, and F. J. Pirozzolo. Mahwah, NJ: Lawrence Erlbaum Associates Publishers, 29-54.
- [70] DeGue, Sarah, Linda Anne Valle, Melissa K. Holt, Greta M. Massetti, Jennifer L. Matjasko, and Andra Teten Tharmp. 2014. "A Systematic Review of Primary Prevention Strategies for Sexual Violence Perpetration." *Aggression and Violent Behavior* 19: 346-362. Accessed Oct. 4, 2019. <http://dx.doi.org/10.1016/j.avb.2014.05.004>.
- [71] Cook, Royer, and William Schlenger. 2002. "Substance Abuse in the Workplace: A Review of Research on the Delivery of Services." *The Journal of Primary Prevention* 23 (1): 115-142.
- [72] Ames, Genevieve M., and Joel B. Bennett. 2011. "Prevention Interventions of Alcohol Problems in the Workplace: A Review and Guiding Framework." *Alcohol Research & Health* 34 (2): 175-187.
- [73] Olson, Casey, Training Chief, Army SHARP Ready & Resilient Directorate, and Army G1 Office of the Deputy Chief of Staff, MRT Skills Overview, 2019.
- [74] "Assessments." Hogan. Accessed Sept. 24, 2019. <https://www.hoganassessments.com/assessments/>.
- [75] "DiSC Overview." DiSC Profile. Accessed Sept. 24, 2019. <https://www.discprofile.com/what-is-disc/overview/>.
- [76] "MBTI Basics." The Myers & Briggs Foundation. Accessed Sept. 24, 2019. <https://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/>.

- [77] "Measuring SEL: Using Data to Inspire Practice." CASEL. Accessed Oct. 21, 2019. <http://measuringsel.casel.org/access-assessment-guide/>.
- [78] Drentea, Patricia, and John R. Reynolds. March 2015. "Where Does Debt Fit in the Stress Process Model?" *Society & Mental Health* 5 (1): 16-32. doi: 10.1177/2156869314554486.
- [79] Sweet, Elizabeth, Arijit Nandi, Emma Adam, and Thomas McDade. Aug. 2013. "The High Price of Debt: Household Financial Debt and Its Impact on Mental and Physical Health." *Social Science & Medicine* 91: 94-100. doi: 10.1016/j.socscimed.2013.05.009.
- [80] Gathergood, John. Jan. 2012. "Debt and Depression: Causal Links and Social Norm Effects." *The Economic Journal* 122 (563): 1094-1114. Accessed Sept. 27, 2019. <https://www.jstor.org/stable/23271804>.
- [81] Cornum, Rhonda, Michael D. Matthews, and Martin E. P. Seligman. 2011. "Comprehensive Soldier Fitness: Building Resilience in a Challenging Institutional Context." *American Psychologist* 66 (1): 4-9. Accessed Nov. 17, 2017. <https://www.apa.org/pubs/journals/releases/amp-66-1-4.pdf>.
- [82] Army Regulation 350-53. June 19, 2014. *Comprehensive Soldier and Family Fitness*. Accessed Nov. 13, 2017. https://www.army.mil/e2/downloads/rv7/r2/policydocs/r350_53.pdf.
- [83] Gutman, Leslie Morrison, and Ingrid Schoon. 2013. *The Impact of Non-Cognitive Skills on Outcomes for Young People*. The Institute of Education, University of London.
- [84] Waller, Margaret A. 2001. "Resilience in Ecosystemic Context: Evolution of the Concept." *American Journal of Orthopsychiatry* 71 (3): 290-297. Accessed Sept. 20, 2017. <https://www.homeworkmarket.com/sites/default/files/q4/30/06/wallerecosystemresilienc e.pdf>.
- [85] Carroll, Elizabeth B., Dennis K. Orthner, Andrew Behnke, Catherine M. Smith, Steven Day, and Michael Raburn. 2013. "Integrating Life Skills into Relationship and Marriage Education: The Essential Life Skills for Military Families Program." *Family Relations* 62 (4): 559-570.
- [86] Lien, Diana S., Laura J. Kelley, David Gregory, Catherine M. Hiatt, and David L. Reese. 2013. *DON Military Career Characteristics Associated with Suicide*. CNA. DRM-2013-U-005382-1Rev.
- [87] Hoar, Margaux E., Veronica Birchler DeAllende, Sara M. Russell, Maryann Shane, Alison M. Vernon, and Benjamin Klahr. 2017. *Impact of Bystander Intervention to the Fleet and Chart the Course Training*. CNA. DRM-2017-U-015198-Final.
- [88] Griffis, Henry S., Neil B. Carey, Robert C. Hausmann, Sara M. Russell, Darlene E. Stafford, and Yolanda Peterson-Jones. 2017. *Minimizing Stigma to Facilitate Help-Seeking: Volume 1*. CNA. DRM-2016-U-014334-Final.
- [89] Carey, Neil B., and Darlene E. Stafford. 2018. *Gun Lock Policies and the Military Culture of Gun Use*. CNA. DAM-2018-U-017241-Final.
- [90] Chung, Tammy, Kasey G. Creswell, Rachel Bachrach, Duncan B. Clark, and Christopher S. Martin. 2018. "Adolescent Binge Drinking: Developmental Context and Opportunities for Prevention." *The Journal of the National Institute on Alcohol Abuse and Alcoholism* 39 (1): 5-16.
- [91] Britt, Chester L. 2018. "Age and Crime." In *The Oxford Handbook of Developmental and Life-Course Criminology*. Edited by David P. Farrington, Lila Kazemian, and Alex R. Piquero. Oxford, England: Oxford University Press.

- [92] Guerra, Nancy, Kathryn Modecki, and Wendy Cunningham. Nov. 2014. *Developing Social-Emotional Skills for the Labor Market: The PRACTICE Model*. World Bank Social Protection and Labor Global Practice Group. Policy Research Working Paper 7123.
- [93] International Commission on Education for the Twenty-First Century. 1997. *Learning: The Treasure Within; Report to UNESCO of the International Commission on Education for the Twenty-First Century*. United Nations Educational, Scientific, and Cultural Organization. ED.96/WS/9. Accessed Apr. 26, 2019. http://www.unesco.org/education/pdf/15_62.pdf.
- [94] Hunte, Rose Sabina, and Ashraf Esmail. 2011. "Learning to Change: Does Life Skills Training Lead to Reduced Incident Reports Among Inmates in a Medium/Minimum Correctional Facility?" *Race, Gender & Class* 18 (3/4): 291-315.
- [95] Scales, Peter C., Peter L. Benson, Sabrina Oesterle, Karl G. Hill, J. David Hawkins, and Travis J. Pashak. 2016. "The Dimensions of Successful Young Adult Development: A Conceptual and Measurement Framework." *Applied Developmental Science* 20 (3): 150-174. Accessed Mar. 8, 2019. <http://10.1080/10888691.2015.1082429>.
- [96] Nagaoka, Jenny, Camille A. Farrington, Stacy B. Ehrlich, and Ryan D. Heath. June 2015. *Foundations for Young Adult Success: A Developmental Framework*. The University of Chicago Consortium on Chicago School Research. Concept Paper for Research and Practice.
- [97] "Career Readiness Defined." National Association of Colleges and Employers. Accessed Apr. 29, 2019. <https://www.nacweb.org/career-readiness/competencies/career-readiness-defined/>.
- [98] Harvard University Center on the Developing Child. 2016. *Building Core Capabilities for Life: The Science Behind the Skills Adults Need to Succeed in Parenting and in the Workplace*. Accessed Jan. 29, 2019. <https://developingchild.harvard.edu>.
- [99] "Innovation & Application." Center on the Developing Child, Harvard University. Accessed Apr. 17, 2019. <https://developingchild.harvard.edu/>.
- [100] Comprehensive Adult Student Assessment System. 2008. *CASAS Competencies: Essential Life and Work Skills for Youth and Adults*. Accessed May 20, 2019. <https://www.casas.org/docs/pagecontents/competencies.pdf?Status=Master>.
- [101] "Core SEL Competencies." Collaborative for Academic, Social, and Emotional Learning (CASEL). Accessed June 10, 2019. <https://casel.org/core-competencies/>.
- [102] NCREL and Metiri Group. 2003. *enGauge 21st Century Skills: Literacy in the Digital Age*. North Central Regional Educational Laboratory and Metiri Group. Accessed Apr. 26, 2019. <https://pict.sdsu.edu/engauge21st.pdf>.
- [103] U.S. Navy. Sept. 2015. *Training Course Control Document for LifeSkills*. TCCD A-500-0613.
- [104] U.S. Navy. 2016. *Full Speed Ahead (FSA) Navy Resilience Training Facilitation Guide and related materials*.
- [105] Penn State Cooperative Extension. 2018. *Clearinghouse Fact Sheet for Military Family Readiness: Essential Life Skills for Military Families (ELSMF)*. Accessed Jan. 30, 2019. https://lion.militaryfamilies.psu.edu/sites/default/files/fact_sheets/Essential_Life_Skills_for_Military_Families_ELSMF_2.pdf.
- [106] U.S. Army. 2014. *Comprehensive Soldier & Family Fitness MRT Skills Overview, Version 3.1*.
- [107] Croes, Jo-Anne V., and Melina M. Visser. Fall 2015. "From Tech Skills to Life Skills: Google Online Marketing Challenge and Experiential Learning." *Journal of Information Systems Education* 26 (4): 305-316.

- [108] Harvard University Center on the Developing Child. *Building the Skills Adults Need for Life: A Guide for Practitioners*. Harvard University. Accessed Jan. 29, 2019.
<https://developingchild.harvard.edu/resources/building-skills-adults-need-life-guide-practitioners/>.
- [109] Jenson, Jeffrey M., and Mark W. Fraser. 2016. "A Risk and Resilience Framework for Child, Youth, and Family Policy." In *Social Policy for Children and Families: A Risk and Resilience Perspective*. Edited by Jeffrey M. Jenson and Mark W. Fraser. Thousand Oaks, CA: SAGE Publications, 5-24.
- [110] Subasree, R. 2012. "Effectiveness of Life Skills Training Among University Students." *Indian Journal of Positive Psychology* 3 (1): 66-70.
- [111] Mumford, Troy V., Michael A. Campion, and Frederick P. Morgeson. 2007. "The Leadership Skills Strataplex: Leadership Skill Requirements Across Organizational Levels." *The Leadership Quarterly* 18: 154-166.
- [112] American Psychological Association. 2018. "APA Dictionary." Accessed July 9, 2019.
<https://dictionary.apa.org/>.
- [113] British Columbia Ministry of Education. *Critical Thinking Competency Profiles*. Draft. Accessed July 1, 2019.
<https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/pdf/CriticalThinkingCompetencyProfiles.pdf>.
- [114] Rio Salado College. "The Critical Thinking Competency." Tempe, AZ. Accessed July 1, 2019.
<http://www.riosalado.edu/library/owl/Documents/CriticalThinkingCollege-WideRubric.pdf>.
- [115] Cambridge University Press. 2019. "English." Cambridge Dictionary. Accessed July 9, 2019.
<https://dictionary.cambridge.org/us/dictionary/english/>.
- [116] Chicago State University. "Competency Dictionary." Accessed July 1, 2019.
<https://www.csu.edu/humanresources/empdev/competencyDictionary.htm>.
- [117] Kowske, Brenda J., and Kshanika Anthony. 2007. "Towards Defining Leadership Competence Around the World: What Mid-Level Managers Need to Know in Twelve Countries." *Human Resource Development International* 10 (1): 21-41.
- [118] Ackerman, Courtney. "What Is Self-Regulation? (+95 Skills and Strategies)." Positive Psychology Program. May 20, 2019. Accessed May 28, 2019.
<https://positivepsychologyprogram.com/self-regulation/>.
- [119] Leonard, Henry A., J. Michael Polich, Jeffrey D. Peterson, Ronald E. Sortor, and S. Craig Moore. 2006. *Something Old, Something New: Army Leader Development in a Dynamic Environment*. RAND Arroyo Center. MG-281-A.
- [120] Carey, Michael P., and Andrew D. Forsyth. "Teaching Tip Sheet: Self-Efficacy." American Psychological Association. Accessed July 9, 2019.
<https://www.apa.org/pi/aids/resources/education/self-efficacy>.
- [121] 2013. "What Is Positive Thinking?" Leading Personality. Accessed July 9, 2019.
<https://leadingpersonality.wordpress.com/2013/03/15/what-is-positive-thinking/>.
- [122] Stockdale, Susan L., and Ralph G. Brockett. 2011. "Development of the PRO-SDLS: A Measure of Self-Direction in Learning Based on the Personal Responsibility Orientation Model." *Adult Education Quarterly* 61 (2): 161-180. doi: 10.1177/0741713610380447.

- [123] Diaz-Cervo, Marie. 2017. "What Is Personal Responsibility?" Quora. Sept. 25, 2017. Accessed July 9, 2019. <https://www.quora.com/What-is-personal-responsibility>.
- [124] "Word Explorer Children's Dictionary: Personal Responsibility." Kids.Wordsmyth. Accessed July 9, 2019. <https://kids.wordsmyth.net/we/?ent=personal+responsibility>.
- [125] Pulakos, Elaine D., Sharon Arad, Michelle A. Donovan, and Kevin E. Plamondon. 2000. "Adaptability in the Workplace: Development of a Taxonomy of Adaptive Performance." *Journal of Applied Psychology* 85 (4): 612-624.
- [126] Lim, Sandra. 2019. "Interpersonal Skills." Investopedia. Apr. 26, 2019. Accessed July 9, 2019. <https://www.investopedia.com/terms/i/interpersonal-skills.asp>.
- [127] "Interpersonal Skills." Wikijob. Accessed July 9, 2019. <https://www.wikijob.co.uk/content/interview-advice/competencies/interpersonal-skills>.
- [128] Carroll, Stephen J., and Dennis J. Gillen. 1987. "Are the Classical Management Functions Useful in Describing Managerial Work?" *Academy of Management Review* 12 (1): 38-51.
- [129] Gillen, Dennis J., and Stephen J. Carroll. 1985. "Relationship of Managerial Ability to Unit Effectiveness in More Organic Versus More Mechanistic Departments." *Journal of Management Studies* 22 (6): 668-676.
- [130] Lau, Alan W., and Cynthia M. Pavett. 1980. "The Nature of Managerial Work: A Comparison of Public- and Private-Sector Managers." *Group & Organization Studies* 5 (4): 453-466.
- [131] Mintzberg, Henry. 1973. *The Nature of Managerial Work*. New York: Harper and Row.
- [132] Zaccaro, Stephen J. 2001. *The Nature of Executive Leadership: A Conceptual and Empirical Analysis of Success*. Washington, DC: American Psychological Association.
- [133] Mahoney, T. A., T. H. Jerdee, and S. J. Carroll. 1965. "The Jobs of Management." *Industrial Relations* 4: 97-110.
- [134] Jacobs, T. O., and E. Jaques. 1987. "Leadership in Complex Systems." In *Human Productivity Enhancement*. Edited by J. Zeidner. New York: Praeger, 7-65.
- [135] Curşeu, Petru Lucian, and Sandra G. L. Schruijer. 2012. "Decision Styles and Rationality: An Analysis of the Predictive Validity of the General Decision-Making Style Inventory." *Educational and Psychological Measurement* 72 (6): 1053-1062.
- [136] Katz, R. L. 1974. "Skills of an effective administrator." *Harvard Business Review* 52 (5): 90-102.
- [137] Conlin, Ronald P. 2016. "A Comparative Study of Leadership Skill Requirements Across Sales, Human Resource and Finance Functions." PhD diss., Pepperdine University Graduate School of Education and Psychology.
- [138] Goleman, D. 1998. *Working with Emotional Intelligence*. 1st ed. New York: Bantam Dell.
- [139] Jacobs, T. O., and M. L. McGee. 2001. "Competitive Advantage: Conceptual Imperatives for Executives." In *The Nature of Organizational Leadership*. Edited by S. J. Zaccaro, and R. J. Klimoski. San Francisco: Jossey-Bass, 42-78.
- [140] Wong, Leonard, Paul Bliese, and Dennis McGurk. 2003. "Military Leadership: A Context Specific Review." *The Leadership Quarterly* 14 (6): 657-692.
- [141] Lewis, P., and T. O. Jacobs. 1992. "Individual Differences in Strategic Leadership Capacity: A Constructive/Developmental View." In *Strategic Leadership: A Multiorganizational-Level Perspective*. Edited by R. L. Phillips, and J. G. Hunt. Westport, CT: Quorum Books, 121-137.

- [142] Jaques, E., and S. D. Clement. 1991. *Executive Leadership: A Practical Guide to Managing Complexity*. Arlington, VA: Cason Hall.
- [143] Klein, Gary A. 1998. *Sources of Power: How People Make Decisions*. Cambridge, MA: MIT Press.
- [144] Mumford, M. D., S. J. Zaccaro, J. F. Johnson, M. Diana, J. A. Gilbert, and K. V. Threlfall. 2000. "Patterns of Leader Characteristics: Implications for Performance and Development." *Leadership Quarterly* 11 (1): 115-133.
- [145] Kanungo, R. N., and S. Misra. 1992. "Managerial Resourcefulness: A Reconceptualization of Management Skills." *Human Relations* 45: 1311-1332.
- [146] Cox, C. J., and C. L. Cooper. 1988. *High Flyers: An Anatomy of Managerial Success*. New York: Blackwell.
- [147] Mumford, Michael D., Michelle A. Marks, Mary Shane Connelly, Stephen J. Zaccaro, and Roni Reiter-Palmon. 2000. "Development of Leadership Skills: Experience and Timing." *Leadership Quarterly* 11 (1): 87-114.
- [148] Yukl, Gary. 1989. "Managerial Leadership: A Review of Theory and Research." *Journal of Management* 15 (2): 251-289.
- [149] Brunnermeier, Markus K., Patrick Bolton, and Laura Veldkamp. 2010. "Economists' Perspectives on Leadership." In *Handbook of Leadership Theory and Practice: A Harvard Business School Centennial Colloquium*. Edited by Nitin Nohria, and Rakesh Khurana. Boston: Harvard Business School Press.
- [150] Gasch, James. 2005. *Identifying Military Leadership Training for Possible Consolidation*. CNA. CAB D0011537.A2.
- [151] Drucker, Peter. 1967. *The Effective Executive*. New York: Harper Collins.
- [152] Kaplan, Steven N., Mark M. Klebanov, and Morten Sorensen. 2012. "Which CEO Characteristics and Abilities Matter?" *The Journal of Finance* 67 (3): 973-1007.
- [153] Kernis, M. H., and B. M. Goldman. 2006. "A Multicomponent Conceptualization of Authenticity: Theory and Research." *Advances in Experimental Social Psychology* 38: 283-357.
- [154] Chatman, Jennifer A., and Jessica A. Kennedy. 2010. "Psychological Perspectives on Leadership." In *Handbook of Leadership Theory and Practice: A Harvard Business School Centennial Colloquium*. Edited by Nitin Nohria, and Rakesh Khurana. Boston: Harvard Business Press.
- [155] Cha, Sandra E., and Amy C. Edmondson. 2006. "When Values Backfire: Leadership, Attribution, and Disenchantment in a Values-Driven Organization." *The Leadership Quarterly* 17: 57-78.
- [156] Blake, Robert R., and Jane S. Mouton. 1985. *The Managerial Grid III: The Key to Leadership Excellence*. Gulf Publishing Co.
- [157] Cohen, W. M., and D. A. Levinthal. 1990. "Absorptive Capacity: A New Perspective on Learning and Innovation." *Administrative Science Quarterly* 35: 128-152.
- [158] Steele, W. M., and R. P. Walters. 2001. "21st Century Leadership Competencies. Army." *Army* 51: 29-32.
- [159] Schlaerth, Andrea, Nurcan Ensari, and Julie Christian. 2013. "A Meta-Analytical Review of the Relationship Between Emotional Intelligence and Leaders' Constructive Conflict Management." *Group Processes and Intergroup Relations* 16 (1): 126-136.

- [160] Graham, John L. 1983. "Brazilian, Japanese, and American Business Negotiations." *Journal of International Business Studies* 14 (1): 47-61.
- [161] Northouse, P. G. 2007. *Leadership Theory and Practice*. 4th ed. Thousand Oaks, CA: Sage.
- [162] Shipper, Frank M., and John E. Dillard. 2001. "A Study of Impending Derailment and Recovery of Middle Managers Across Career Stages." *Human Resource Management* 39 (4): 331-345.
- [163] Luthans, Fred, Dianne H. B. Welsh, and Lewis A. Taylor. 1988. "A Descriptive Model of Managerial Effectiveness." *Group & Organization Management* 13 (2): 148-162.
- [164] Wright, P. 1996. *Managerial Leadership*. New York: Routledge.
- [165] De Meuse, Kenneth P., Guangrong Dai, and Joshua Wu. 2011. "Leadership Skills Across Organizational Levels: A Closer Examination." *The Psychologist-Manager Journal* 14: 120-139.
- [166] Blanchard, K., P. Zigarmi, and D. Zigarmi. 1985. *Leadership and the One Minute Manager: Increasing Effectiveness Through Situational Leadership*. New York: Morrow.
- [167] Hausmann, Robert C., and Daniel Weissbein. 2004. *Is Online Leadership Training Effective?* CNA. CRM D0010384.A2.
- [168] Kaiser, R. B., and S. B. Craig. 2011. "Do the Behaviors Related to Managerial Effectiveness Really Change with Organizational Level? An Empirical Test." *The Psychologist-Manager Journal* 14: 92-119.
- [169] Hackman, J. Richard, and R. Wageman. 2005. "A Theory of Team Coaching." *The Academy of Management Review* 30 (2): 269-287.
- [170] Hicks, Ben. 2010. *Team Coaching: A Literature Review*. Institute for Employment Studies.
- [171] Rullo, Joseph. July 26, 2018. "Camp Lemonnier Embraces Sailor 360 Program." *U.S. Department of Defense News*. Accessed July 2, 2019. <https://dod.defense.gov/News/Article/Article/1585368/camp-lemonnier-embraces-sailor-360-program/>.
- [172] "Core Competencies: Critical Thinking Definition and Rubric." Berkshire Community College. Accessed July 1, 2019. https://www.berkshirecc.edu/academics/academic-support/graduation-requirements/core-competencies/CC_CT_Critical_Thinking.pdf.
- [173] Paul, Richard, and Linda Elder. *A Guide for Educators to Critical Thinking Competency Standards: Standards, Principles, Performance Indicators, and Outcomes With a Critical Thinking Master Rubric*. The Foundation for Critical Thinking. Accessed July 1, 2019. http://www.criticalthinking.org/files/SAM_Comp%20Stand_07opt.pdf.
- [174] The Undergraduate Critical Thinking Competency Assessment Committee. Oct. 31, 2012. *A Report on Undergraduate Critical Thinking at the University of Virginia*. Accessed July 1, 2019. https://ias.virginia.edu/sites/ias.virginia.edu/files/Critical%20Thinking%20Comp%20Assmt%20Report_FINAL.pdf
- [175] Colorado Commission on Higher Education. 2016. *GT Pathways Competency: Critical Thinking*. Accessed July 18, 2019. https://higher.ed.colorado.gov/Academics/Transfers/gtPathways/Criteria/Competency/Competency_Critical_Thinking.pdf.
- [176] LaGuardia Community College. "Inquiry and Problem Solving: Adapted from the AAC&U VALUE Rubrics." Accessed July 17, 2019. https://www.laguardia.edu/uploadedFiles/Main_Site/Content/Divisions/AA/Assessment/Docs/Combined%20Competency%20and%20Ability%20Rubrics.pdf.

- [177] Colorado Commission on Higher Education. 2016. *GT Pathways Competency: Diversity & Global Learning*. Accessed July 18, 2019. <https://highered.colorado.gov/Academics/Transfers/gtPathways/Criteria/Competency/Competency Diversity Global Learning.pdf>.
- [178] Colorado Commission on Higher Education. 2016. *GT Pathways Competency: Problem Solving*. Accessed July 18, 2019. <https://highered.colorado.gov/Academics/Transfers/gtPathways/Criteria/Competency/Competency Problem Solving CCHE approved.pdf>.
- [179] SkillsYouNeed. "Top Tips for Effective Interpersonal Communication." Accessed July 17, 2019. <https://www.skillsyouneed.com/rhubarb/effective-interpersonal-communication.html>.
- [180] Herman, Beth, and Rebecca Collins. 2018. *Social and Emotional Learning Competencies*. Madison, WI: Wisconsin Department of Public Instruction. Accessed July 22, 2019. <https://dpi.wi.gov/sites/default/files/imce/sspw/SEL-Competencies-Guide-web.pdf>.
- [181] Madison Metropolitan School District. 2011. *Social Emotional Learning Standards 4K-12th Grade Continuum*. Madison, WI: Author. Accessed July 22, 2019. https://curriculum.madison.k12.wi.us/files/curriculum/4k-12_sel_standards.pdf.
- [182] Boal, Kimberly B., and Carlton J. Whitehead. 1992. "A Critique and Extension of the Stratified Systems Theory Perspective." In *Strategic Leadership: A Multiorganizational-Level Perspective*. Edited by R. L. Phillips, and J. G. Hunt. Westport, CT: Quorum Books/Greenwood Publishing Group, 237-253.
- [183] Cangemi, Joseph P., Bill Burga, Harold Lazarus, Richard L. Miller, and Jaime Fitzgerald. 2008. "The Real Work of the Leader: A Focus on the Human Side of the Equation." *Journal of Management Development* 27 (10): 1026-1036.
- [184] Colorado Department of Education. "Colorado Academic Standards: All Students, All Standards." Accessed May 21, 2019. <https://www.cde.state.co.us/standardsandinstruction/essentialskills>.
- [185] Kivunja, Charles. 2015. "Teaching Students to Learn and to Work Well with 21st Century Skills: Unpacking the Career and Life Skills Domain of the New Learning Paradigm." *International Journal of Higher Education* 4 (1): 1-11. Accessed July 22, 2019. doi: 10.5430/ijhe.v4n1p1. <http://dx.doi.org/10.5430/ijhe.v4n1p1>.
- [186] University of Buffalo. 2019. "Competency Library." University of Buffalo Administrative Services Gateway. Accessed July 23, 2019. <http://www.buffalo.edu/administrative-services/managing-people/supervising/planning-evaluating-performance/competency-library.html>.
- [187] U.S. Office of Personnel Management. *Proficiency Levels for Leadership Competencies*. Accessed July 22, 2019. <https://www.opm.gov/policy-data-oversight/assessment-and-selection/competencies/proficiency-levels-for-leadership-competencies.pdf>.
- [188] National Soft Skills Association. 2015. "Three Step Process to Teaching a Positive Attitude." National Soft Skills Association. Mar. 20, 2015. Accessed July 25, 2019. <https://www.nationalsoftskills.org/three-step-process-to-teaching-a-positive-attitude/>.
- [189] 2014. *Comprehensive Soldier & Family Fitness: Master Resilience Trainer (MRT) Skills Overview*. Accessed March 15, 2019. <https://armyfit.army.mil/>.
- [190] "21st Century Skills." Iowa Department of Education. Accessed May 21, 2019. <https://iowacore.gov/iowa-core/subject/21st-century-skills>.

- [191] Rotemberg, J., and G. Saloner. 1993. "Leadership Styles and Incentives." *Management Science* 39: 1299-1318.
- [192] Tennessee Department of Education. 2017. *K-12 Social and Personal Competencies Resource Guide*. Accessed July 22, 2019.
https://www.tn.gov/content/dam/tn/education/safety/safe_sch/SPC_Resource_Guide.pdf.
- [193] Black, J. A., and K. B. Boal. 1996. "Assessing the Organizational Capacity to Change." In *Competence-Based Strategic Management*. Edited by A. Heene and R. Sanchez. Chichester, UK: Wiley, 151-158.
- [194] Briscoe, J. P., and D. T. Hall. 1999. "Grooming and Picking Leaders Using Competency Frameworks: Do They Work? An Alternative Approach and New Guidelines for Practice." *Organizational Dynamics* 28 (2): 37-52.
- [195] Yuengling, A. Renee. *Foundation for Diversity Training: Competency Model and Learning Objectives*. Defense Equal Opportunity Management Institute. Technical Report No. 06-12.
- [196] SkillsYouNeed. "Verbal Communication Skills." Accessed July 19, 2019.
<https://www.skillsyouneed.com/ips/verbal-communication.html>.
- [197] Quinn, R. E. 1988. *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance*. San Francisco: Jossey-Bass.
- [198] Mayo Clinic. "Friendships: Enrich Your Life and Improve Your Health." Healthy Lifestyle: Adult Health. Accessed July 19, 2019. <https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/friendships/art-20044860>.
- [199] SkillsYouNeed. "Building Rapport." Accessed July 19, 2019.
<https://www.skillsyouneed.com/ips/rapport.html>.
- [200] Boyes, Alice. 2015. "Do You Have These 21 Essential Relationship Skills? ... and Does Your Partner Agree?" *Psychology Today*. Apr. 22, 2015. Accessed July 2, 2019.
<https://www.psychologytoday.com/us/blog/in-practice/201504/do-you-have-these-21-essential-relationship-skills>.
- [201] Fairfax County Public Schools, Department of Special Services. *10 Lessons for Teaching Conflict Resolution Skills*. Accessed July 18, 2019.
http://creducation.net/resources/CR_Guidelines_and_10_CR_lessons_FCPS.pdf.

This page intentionally left blank.

This report was written by CNA's Resources and Force Readiness Division (RFR).

RFR provides analytic support grounded in data to inform resource, process, and policy decisions that affect military and force readiness. RFR's quantitative and qualitative analyses provide insights on a full range of resource allocation and investment decisions, including those pertaining to manning, maintenance, supply, and training. Drawing on years of accumulated individual and unit data, as well as primary data collections, the RFR toolbox includes predictive data analytics, statistical analysis, and simulation to answer optimization and what-if questions, allowing military leaders to make better informed decisions.

CNA is a not-for-profit research organization that serves the public interest by providing in-depth analysis and result-oriented solutions to help government leaders choose the best course of action in setting policy and managing operations.



Dedicated to the Safety and Security of the Nation

3003 Washington Boulevard, Arlington, VA 22201

www.cna.org • 703-824-2000