

THE BENEFIT OF POSITIVE VISUALIZATION ON THE U.S. ARMY

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

ROGER A. WANG JR., MAJOR, U.S. ARMY
B.G.S., University of Kansas, Lawrence, Kansas, 2002

Fort Leavenworth, Kansas
2014-01

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE			<i>Form Approved</i> <i>OMB No. 0704-0188</i>		
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) 13-06-2014		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) AUG 2013 – JUNE 2014	
4. TITLE AND SUBTITLE The Benefit of Positive Visualization on the U.S. Army			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Major Roger A. Wang Jr.			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301			8. PERFORMING ORG REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The Army created the Comprehensive Soldier Fitness program in 2009, now named Comprehensive Soldier Family and Fitness (CSF2). Its mission is to build resilience in each soldier, both physically and psychologically, through resilience training. The Army decided to base CSF2 on positive psychology and use positive visualization as a subcomponent of the CSF2's resilience training. Positive visualization is focusing on positive mental images in order to help achieve a goal. It is a technique that is most known to be used in sports. However, it is also used in civilian companies and businesses of different professions. This research paper investigated and analyzed the utility of PV within the CSF2 program, for the U.S. Army. Specifically, the researcher conducted qualitative analysis of research and resources that involve PV.					
15. SUBJECT TERMS Comprehensive Soldier Family and Fitness, Positive Visualization, Ready and Resilient Campaign, Army Wellness Center, Basic Combat Training					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. PHONE NUMBER (include area code)
(U)	(U)	(U)	(U)	75	

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: MAJ Roger A. Wang Jr.

Thesis Title: The Benefit of Positive Visualization on the U.S. Army

Approved by:

_____, Thesis Committee Chair
Timothy R. Hentschel, Ph.D.

_____, Member
LTC Cheryl B. Masisak, M.B.A.

_____, Member
LTC Candy S. Smith, M.M.A.S.

Accepted this 13th day of June 2014 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE BENEFIT OF POSITIVE VISUALIZATION ON THE U.S. ARMY, by MAJ Roger A. Wang Jr., 75 pages.

The Army created the Comprehensive Soldier Fitness program in 2009, now named Comprehensive Soldier Family and Fitness (CSF2). Its mission is to build resilience in each soldier, both physically and psychologically, through resilience training. The Army decided to base CSF2 on positive psychology and use positive visualization as a subcomponent of the CSF2's resilience training.

Positive visualization is focusing on positive mental images in order to help achieve a goal. It is a technique that is most known to be used in sports. However, it is also used in civilian companies and businesses of different professions.

This research paper investigated and analyzed the utility of PV within the CSF2 program, for the U.S. Army. Specifically, the researcher conducted qualitative analysis of research and resources that involve PV.

ACKNOWLEDGMENTS

First, I would like to thank my loving family for their love and support. Especially my wife and sister, both who thought helping me with papers ended in college. I would also like to thank everyone that encouraged me and assisted me during my research project.

I am thankful for my committee's patience and commitment along the way. I am very appreciative for my chair's encouragement and guidance from the beginning and throughout because without it my research project would not have been possible. My research seminar group also played an important role for which I am very grateful for their feedback and critiques.

Lastly, I would like to thank the organizations of the Fort Leavenworth, Kansas, Army Wellness Center, Combined Arms Research Library, and Master of Military Art and Science Department. My research project would also not have been possible without the time and effort of the wonderful people that work there.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT.....	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS.....	vi
ACRONYMS.....	viii
ILLUSTRATIONS	ix
TABLES	x
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 LITERATURE REVIEW	12
CHAPTER 3 RESEARCH METHODOLOGY	21
CHAPTER 4 ANALYSIS	25
Analysis of Primary Research Question	25
Analysis of Secondary Research Questions.....	32
Is there scientific data that describes PV	32
If PV is successful, how often does it work.....	34
Are there testimonies that prove or disprove PV	36
Are there U.S. military organizations or civilian companies, nationally or globally, that currently use PV.....	38
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS.....	47
GLOSSARY	53
APPENDIX A ARMY WELLNESS CENTER INTERVIEW QUESTIONS	57
APPENDIX B AWC CONSENT AND USER AGREEMENT FOR ORAL INTERVIEW MATERIALS	58
APPENDIX C BASIC COMBAT TRAINING ORAL HISTORY INTERVIEW	59

APPENDIX D BCT CONSENT AND USER AGREEMENT FOR ORAL
HISTORY INTERVIEW60

BIBLIOGRAPHY61

ACRONYMS

ABC	Soldiers learn to recognize an activating event (A), their beliefs (B) about the activating event, and the emotional and behavioral consequences (C) of those thoughts
ADP	Army Doctrine Publication
ALC	Advanced Leader Course
AWC	Army Wellness Center
BCT	Basic Combat Training
BOLC	Basic Officer Leaders Course
CSF2	Comprehensive Soldier Family and Fitness
HRV	Heart Rate Variability
IRT	Institutional Resilience Training
MRT	Master Resilience Trainer
PCC	Pre-Command Course
PME	Professional Military Education
PTSD	Post Traumatic Stress Disorder
PV	Positive Visualization
R2C	Ready and Resilient Campaign
SEAL	SEALs, part of U.S. Naval Special Warfare, take their name from the environments in which they are trained to operate: sea, air and land.
SLC	Senior Leader Course
SMC	Sergeants Major Academy
USMC	United States Marines Corps
USMA	United States Military Academy
WLC	Warrior Leader Course

ILLUSTRATIONS

	Page
Figure 1. Resilience Training Model Through Enlisted PME.....	26
Figure 2. Institutional Life Cycle for Officers	27
Figure 3. Ready and Resilient Campaign with Supporting Army Programs	32
Figure 4. Heart Rate Variability of Frustration and Appreciation	34
Figure 5. Practiced PV User's Coherence Results in AWC's Stress Management Lab .	35
Figure 6. Novice PV User's Coherence Results in AWC's Stress Management Lab.....	36
Figure 7. Performance Enhancement Program's Education Model	40
Figure 8. Range of Optimal Performance Under Stress	43

TABLES

	Page
Table 1. Army Wellness Center Patient Encounters.....	30

CHAPTER 1

INTRODUCTION

To accomplish great things we must first dream, then visualize, then plan . . .
believe . . . act.

— Alfred A. Montapert

In the late 1980s the U.S. Army considered the application of psychological methods such as biofeedback, guided imagery, and positive visualization (PV) in order to increase soldiers' motor skills, manage stress, and enhance overall soldier performance.¹ Society then considered the aforementioned methods “new-age” techniques, and it was a \$30 billion a year industry.² PV focuses on positive mental images in order to help achieve a goal. Biofeedback involves using visual or auditory feedback to gain control over involuntary bodily functions.³ Guided imagery is a relaxation exercise that also involves visualization.⁴ Although the board conducting the study noted potential existed in these methods, lack of theoretical and empirical support needed to substantiate these methods caused the Army to abandon the project.⁵

¹John A. Swets and Robert Bjork, “Enhancing Human Performance: An Evaluation of ‘New Age’ Techniques Considered by the U.S. Army,” *Psychological Science* (1990): 85.

²Ibid., 95.

³Kendra Cherry, “What is Biofeedback?,” About.com Psychology, <http://psychology.about.com/od/bindex/f/biofeedback.htm> (accessed May 5, 2014).

⁴About.com, “Panic Disorder,” <http://panicdisorder.about.com/od/livingwithpda/Guided-Imagery-For-Panic-Disorder> (accessed May 5, 2014).

⁵Ibid., 96.

In 2008, the Army experienced its highest number of suicides in 28 years, as well as a high number of soldiers experienced Post Traumatic Stress symptoms and depression.⁶ These statistics, which may have been due to the high operational tempo of deployments to Iraq and Afghanistan, caused the then Chief of Staff of the Army, General George Casey, to order the Army to focus on the mental health of soldiers.⁷

The Army created the Comprehensive Soldier Fitness program in 2009, now named Comprehensive Soldier Family and Fitness (CSF2). According to the CSF2 website, the program's mission is to build resilience in each soldier, both physically and psychologically, through resilience training.⁸ According to the special issue of the *American Psychologist Journal* on Comprehensive Soldier Fitness, resilience is defined as "a set of processes that enable good outcomes despite serious threats, or to bounce back from adversity."⁹ The overview for CSF2 is to build resilience and enhance performance of the Army Family (soldiers, families, and Army civilians) by providing hands-on training and self-development tools.¹⁰ The intention is that members of the Army family become physically healthy and psychologically strong to cope with

⁶Rhonda Cornum, Michael D. Matthews, and Martin E. P. Seligman, "Comprehensive Soldier Fitness: Building Resilience in a Challenging Institutional Context," *American Psychologist* 66, no. 1 (January 2011): 4.

⁷Ibid., 1.

⁸Comprehensive Soldier Family and Fitness, "Overview," <http://csf2.army.mil/about.html#mission> (accessed May 6, 2014).

⁹Karen J. Reivich, Martin E. P. Seligman, and Sharon McBride, "Master Resilience Training in the U.S. Army," *American Psychologist* 66, no. 1 (January 2011): 25.

¹⁰Comprehensive Soldier Family and Fitness, "About CSF2," <http://csf2.army.mil/about.html> (accessed May 5, 2014).

adversity, perform better in stressful situations, and thrive in life.¹¹ The Army decided to base CSF2 on positive psychology and use PV as a subcomponent of the CSF2's resilience training.¹² Positive psychology differs from PV by focusing on helping people become happier.¹³

This research paper attempted to investigate and analyze the utility of PV within resiliency training under the CSF2 program, for the U.S. Army. Specifically, the researcher conducted qualitative analysis on research and resources that involve PV. The Army introduces enlisted personnel and officers to resilience training during their initial entry to the Army, which is Basic Combat Training (BCT) and Basic Officers Leaders Course (BOLC) respectively. This concept is referred to as universal resilience training. In the article on Comprehensive Soldier Fitness in the *American Psychologist Journal*, universal resilience training is explained as:

Soldiers receiving specific mental and physical skills to enhance performance when facing challenges, whether those challenges are in personal or professional, live, in garrison, or in combat; there will be continuous progressive, and sequential sustained resilience training for both enlisted soldiers and officers, given at every level of professional military development.¹⁴

This research explored the benefit of PV, if any at all, and if further PV training can be enhanced. The researcher attempted to answer the primary research question of "How can learning PV benefit the U.S. Army?" While answering the primary research

¹¹Ibid.

¹²Cornum, Matthews, and Seligman, 5.

¹³Kendra Cherry, "A Brief Overview of the Field of Positive Psychology," About.com Psychology, <http://www.psychology.about.com/od/branchesofpsycholog1/a/positive-psychology.htm?p=1> (accessed November 19, 2013).

¹⁴Ibid., 7.

question, the researcher also attempted to answer the following secondary research questions.

1. Is there scientific data that can describe how PV works?
2. Are there testimonies or surveys that prove or disprove PV?
3. If PV is successful, how often does it work?
4. Are there U.S. military organizations or civilian companies, nationally or globally that currently use PV?
5. If not, are there some that could benefit from adopting PV?

While answering the primary and secondary research questions, the researcher based his work on several assumptions. There are many processes akin to PV as previously mentioned. Therefore, an important assumption is that all these processes use the mind to visualize or see something positive in order to help accomplish a goal. Since there are many types of psychological methods, and in order to provide clarity and simplicity throughout this research paper, PV generalizes all these terms. These terms are also defined at the end of chapter 1.

Another assumption made by the researcher is that the interviews conducted, although representing only a small percentage of the whole, provide enough representational data to allow the researcher to arrive at reasonable conclusions. Lastly, it is assumed that all participants interviewed were forthcoming in their responses thus allowing for their true beliefs, point of view, and knowledge to be assessed.

The following definitions help explain the evidence throughout the research.

ABC is a skill learned during institutional resilience training, such as BCT. Soldiers learn to recognize an activating event (A), their beliefs (B) about the activating event, and the emotional and behavioral consequences (C) of those thoughts.¹⁵

Army Wellness Centers (AWC) promotes enhanced and sustained healthy lifestyles to improve the overall well-being of soldiers and family members through integrated and standardized programs and services. Programs include education on nutrition, physical activity, and stress management.¹⁶

Basic Combat Training (BCT) is a ten week training course that transforms civilians into soldiers. Recruits learn about the Army's Seven Core Values, how to work together as a team, and what it takes to succeed as a soldier in the U.S. Army.¹⁷

Basic Officer Leaders Course (BOLC) is training in order to transform civilian volunteers into Army officers and warrant officers capable of leading upon arrival at their first unit of assignment.¹⁸

Biofeedback is a technique that involves using visual or auditory feedback to gain control over involuntary bodily functions. It may include gaining voluntary control over

¹⁵Reivich, Seligman, and McBride, 28.

¹⁶Army Wellness Center Fort Leavenworth, "Available Programs," <https://www.munson.amedd.army.mil/departments/wellness.htm> (accessed May 5, 2014).

¹⁷Department of the Army, "Basic Combat Training," <http://www.goarmy.com/soldier-life/becoming-a-soldier/basic-combat-training.html> (accessed May 5, 2014).

¹⁸Department of the Army, Training Doctrine Command (TRADOC), Army Regulation 350-36, *Basic Officer Leader Training Policies and Administration* (Fort Eustis, VA: Headquarters, United States Army TRADOC, January 2014), 7.

such things as heart rate, muscle tension, blood flow, pain perception and blood pressure.¹⁹

Comprehensive Soldier and Family Fitness (CSF2) program builds resilience and enhances performance of the Army Family -- soldiers, their families, and Army Civilians. CSF2 does this by providing training and self-development tools so that members of the Army family are better able to cope with adversity, perform better in stressful situations, and thrive in life.²⁰

Energy Management is a skill learned during institutional resilience training, such as BCT. Participants manage their energy through a variety of strategies such as meditation, controlled breathing, and positive imagery.²¹

Guided Imagery is a relaxation exercise that involves focused visualization. This technique directs individuals to use their imagination to picture being in a particular place or situation. To assist in feeling more relaxed and calm, guided imagery allows individuals to envision what it would be like to be in an ideally peaceful, serene, and comforting scene. Typically, guided imagery is conducted by a qualified mental health specialist, hence the term “guided”, or by audio recording or written instruction. The process is deepened through guide-directed prompts that require the person to imagine the scene through all of her senses. For instance, a person being guided into her peaceful

¹⁹Cherry, “What is Biofeedback?”

²⁰Comprehensive Soldier Family and Fitness, “About CSF2.”

²¹Reivich, Seligman, and McBride, 29.

scene will be directed to bring attention to what she hears, sees, smells, tastes, and touches.²²

Icebergs are a skill learned during institutional resilience training, such as BCT. Participants identify their “icebergs” (deeply held beliefs) or core values and learn to recognize when these icebergs are driving out-of-proportion emotion. Once the iceberg is identified, they ask themselves a series of questions to determine (a) if the iceberg continues to be meaningful to them, (b) if the iceberg is accurate in the given situation, (c) if the iceberg is overly rigid, and (d) if the iceberg is useful. Then the participants look at how these icebergs contribute to or undermine their effectiveness in the Army, as leaders, and in creating strong relationships.²³

Institutional Resilience Training (IRT) is the Army’s institutional training and education system, which primarily includes base centers and schools that provide initial training and subsequent professional military education (PME) for soldiers, military leaders, and Army civilians.²⁴

Master Resilience Trainer (MRT) course provides face-to-face resilience training and is the foundation for training resilience skills to sergeants and for teaching sergeants how to teach these skills to their soldiers. It is one of the foundational pillars of the CSF2

²²About.com, “Panic Disorder.”

²³Reivich, Seligman, and McBride, 28.

²⁴Department of the Army, Army Doctrine Publication (ADP) 7-0, *Training Units and Developing Leaders* (Washington, DC: Government Printing Office, 2012), G1.

program and the “train the trainer model” is the main vehicle for the dissemination of MRT concepts to the entire force.²⁵

Operational training domain is the training activities organizations undertake while at home station, at maneuver combat training centers, during joint exercises, at mobilization centers, and while operationally deployed.²⁶

Performance Enhancement Program (PEP) is to educate and train [United States Military Academy] cadets in performance enhancement techniques that foster their full development as leaders of character. Performance enhancement training is built upon an understanding of how thoughts and emotions interact with anatomy and physiology to dramatically affect human performance. To take advantage of this connection between the mental and the physical the Performance Enhancement Program provides training in the five interrelated mental skills: building confidence, goal setting, attention control, energy management, and integrating imagery.²⁷

Positive Psychology is the science of understanding and promoting behavioral, cognitive, and emotional health.²⁸ It focuses on how human beings can prosper and lead healthy, happy lives.²⁹

²⁵Reivich, Seligman, and McBride, 25.

²⁶Department of the Army, ADP 7-0, G1.

²⁷United States Military Academy, “Performance Enhancement Program Mission,” <http://www.westpoint.edu/cep/SitePages/PEP.aspx> (accessed May 5, 2014).

²⁸Cornum, Matthews, and Seligman, 5.

²⁹Cherry, “A Brief Overview of the Field of Positive Psychology.”

Positive Visualization (PV) (psychology) is a technique involving focusing on positive mental images in order to achieve a particular goal.³⁰ Athletics best illustrates the power of PV. For example, an individual rehearses in his or her mind the most challenging and typically encountered aspect of his or her sport and then holds a clear mental image of performing at peak levels.³¹

Post Traumatic Stress Disorder (PTSD) Post-traumatic stress disorder is a psychiatric illness that can occur after experiencing or witnessing a traumatic event, including natural disasters, rape, violent crime, or war. Symptoms include hyper-vigilance, reliving the trauma, anxiety, and avoidance. Learn more about the causes, symptoms, and treatments for PTSD.³²

Ready and Resilient Campaign (R2C) integrates and synchronizes multiple efforts and programs to improve the readiness and resilience of the Army Family-Soldiers (Active Duty, Reserve, and National Guard), Army Civilians and Families. R2C creates a holistic, collaborative and coherent enterprise to increase individual and unit readiness and resilience. Ready and Resilient will build upon physical, emotional and psychological resilience in Soldiers, Families and Civilians so they improve performance to deal with the rigors and challenges of a demanding profession.³³

³⁰thefreedictionary.com, "Positive Visualization," www.thefreedictionary.com/positivevisualization (accessed 19 November 2013).

³¹Joan M. Vitello-Cicciu, "Innovative Leadership Through Emotional Intelligence," *Nursing Management* 34 (October 2003): 31.

³²About.com, "Post-traumatic Stress Disorder (PTSD)," <http://psychology.about.com/od/ptsd/> (accessed May 5, 2014).

³³Department of the Army, "What's Different?," U.S. Army Ready and Resilient, <http://www.army.mil/readyandresilient/> (accessed May 5, 2014).

Resilience When faced with stress and/or adversity, resilience is a key factor in the mental, emotional, and behavioral ability to cope with and recover from the experience, achieve positive outcomes, adapt to change, stay healthy and grow from the experience. Resilience is closely linked to Performance. Performance is one measure used to assess an individual's level of resilience. A resilient individual is better able to leverage mental and emotional skills and behavior that promotes optimal human performance.³⁴

Sports Psychology is the study of how psychology influences sports, athletic performance, exercise and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.³⁵

Self-development training domain is the planned, goal-oriented learning that reinforces and expands the depth and breadth of an individual's knowledge base, self-awareness, and situational awareness; complements institutional and operational learning; enhances professional competence; and meets personal objectives.³⁶

Thinking Traps are patterns of thinking that can either heighten leadership, performance, and mental health or undermine them. This is another skill learned during institutional resilience training, such as BCT. Examples of thinking traps are jumping to

³⁴Comprehensive Soldier and Family Fitness, "CSF2 FAQs," <http://csf2.army.mil/faqs.html> (accessed May 5, 2014).

³⁵About.com, "SportsPsychology," <http://psychology.about.com/b/2010/07/16/sports-psychology-psychology-definition-of-the-week.htm> (accessed May 5, 2014).

³⁶Department of the Army, ADP 7-0, G1.

conclusions or over generalizing, which is the tendency to judge a person's worth, motivation, or ability on the basis of a single action.³⁷

Significant limitations in this research paper included a limited amount of time and scope to conduct large-scale interviews necessary to compare and contrast opinions of PV. However, the researcher conducted a reasonable amount of research on PV and interviews, to include historic oral interviews, in order to broaden the perspective of PV.

Interviews were limited to the current staff at the Army Wellness Center in Fort Leavenworth, Kansas. Historic oral interviews with past BCT company commanders were limited to Fort Jackson, South Carolina.

The Army is focusing on mental fitness for soldiers because of the high number of cases for Post Traumatic Stress symptoms, depression, and suicides. This study investigated the benefit(s), if any at all, of PV, a single sub-skill, of the CSF2 program that was created to prevent further increase in cases. Specific examination of PV may provide assistance to the U.S. Army or any other organizations for possible changes in resilience training in the future. Chapter 2 describes a comprehensive literary review of the relationship of PV within the CSF2 program, the history of PV, and the advantages and disadvantages of PV to include past research studies. Research methodologies in chapter 3 explain how the research questions are answered. Chapter 4 presents the analysis of the data collected from the research methodologies. The last chapter states the researcher's conclusions from the analysis and gives recommendations for further studies of PV and the CSF2 program.

³⁷Reivich, Seligman, and McBride, 28.

CHAPTER 2

LITERATURE REVIEW

Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will.

— George Bernard Shaw

Through a comprehensive literary review, this chapter describes the history of positive visualization (PV), the relationship of PV within the Comprehensive Soldier Family and Fitness (CSF2) and Ready and Resilient Campaign (R2C) program, and the advantages and disadvantages of PV. In order to view both ends of the spectrum on PV, the researcher gathered literature related to PV to compare and contrast the leading PV arguments.

PV may sound logical but where did it originate? PV may have originated from Zen Buddhism, which began centuries ago in China.³⁸ Eugen Herrigel, a German professor of philosophy, is one of the first westerners to write and discuss the teachings of Zen as early as 1936. In his book, “Zen in the Art of Archery,” Herrigel learns Zen through countless repetitions using the bow and arrow. In doing so, he learned to clear his mind of all distractions and only see his goal. Essentially, the arrow is already center mass of the target, one only has to pull the bow and let go.³⁹ Essentially this description ties in with the definition of PV. Evidence shows the presence of PV throughout the late 1900’s as well.

³⁸Eugen Herrigel, *Zen in the Art of Archery*, trans. R. F. C. Hull (New York City, New York: Pantheon Books, 1953).

³⁹*Ibid.*

According to the *American Psychologist* January 2011 special issue on CSF2, the program has been up and running across the force in order to enhance performance and help soldiers and families become resilient while serving in the Army.⁴⁰ The Army is trying to be proactive by teaching resilience and not reactive to illnesses or injuries.⁴¹ Another goal of CSF2 is to help redeploying soldiers cope with the stress of post traumatic stress disorder (PTSD).⁴² The results and success of this are debatable as discussed by Dr. Roy Eidelson in his June 2012 article “Dangerous Ideas” in *Psychology Today*. The article describes the CSF2 program as questionable because it is adapted from a program designed for children and adolescents and does not support its claims of being effective for the U.S. Army.⁴³ Specifically, Dr. Eidelson says, “It is simply wrong at this time to present CSF as part of a solution, because to date there is no solid empirical evidence demonstrating that the program accomplishes any of [its] lofty goals.”⁴⁴

In April 2013, the Army published “Report #4: Evaluation of Resilience Training and Mental and Behavioral Health Outcomes” with the purpose to examine the effectiveness of Master Resilience Training.⁴⁵ A research team concluded,

⁴⁰George W. Casey, “A Vision for Psychological Resilience in the U.S. Army,” *American Psychologist* 66, no. 1 (January 2011): 3.

⁴¹Cornum, Matthews, and Seligman, 5.

⁴²*Ibid.*

⁴³Roy Eidelson, “The Army’s Flawed Resilience-Training Study: A Call for Retraction,” *Psychology Today* (June 2012): 5.

⁴⁴*Ibid.*

⁴⁵P. D. Harms et al, “Report #4: Evaluation of Resilience Training and Mental and Behavioral Health Outcomes,” in *The Comprehensive Soldier and Family Fitness*

The [Master Resilience Training] assists in improving the resilience and psychological health of soldiers, which appears to, in turn, help reduce the odds of developing diagnosable mental health issues among soldiers. Consequently, the findings suggest that the resilience training component of CSF2 has the capability to improve health and behavioral outcomes for individual soldiers, which may improve the overall effectiveness and efficiency of the Army as a whole.⁴⁶

Since the publication of Report #4, the Army incorporated CSF2's positive and resilient themes into its doctrine for soldiers to become more resilient. For example, Army Doctrine Publication (ADP) 6-22, *Army Leadership*, describes Army leaders to be confident, resilient, and encourage a positive command climate.⁴⁷ Army doctrine also teaches leaders to conduct battlefield visualization as part of mission command.⁴⁸ During mission command, commanders must visualize the battlefield and consider the effects of friendly forces, enemy forces, and terrain.⁴⁹ In accordance with the Army's most recent resilient campaign, R2C, leaders set the example in their unit in order for soldiers to emulate.⁵⁰

Program Evaluation (Monterey, CA: Office of the Deputy Under Secretary of the Army, April 2013), 1.

⁴⁶Ibid., 23-24.

⁴⁷Department of the Army, Army Doctrine Publication (ADP) 6-22, *Army Leadership* (Washington, DC: Government Printing Office, 2012), 5.

⁴⁸Department of the Army, Army Doctrine Publication (ADP) 6-0, *Mission Command* (Washington, DC: Government Printing Office, 2012), 10.

⁴⁹Ibid.

⁵⁰Michelle Tan, "Army Expands Resiliency Training, Targets Leaders." *Army Times*, September 7, 2013, 1.

Today, many civilian companies use PV to increase the productivity of their employees.⁵¹ The most notable spokesperson for PV is Tony Robbins. He made a fortune implementing PV into his self help books and seminars. His simple message is that if a person wants to succeed then that person must positively visualize attaining the object of success. Some methods he uses are eliminating negative words in a person's vocabulary and positive self-talk.⁵²

In contrast, Dr. Gabrielle Oettingen believes that PV is ineffective and counterproductive.⁵³ She conducted an experiment by asking water-deprived participants to visualize a glass of icy cold water.⁵⁴ The study showed that the members that visualized water had a decline in energy levels versus the participants that did not visualize water.⁵⁵ Another experiment asked participants to visualize attaining goals in a week compared to a control group that did not. In comparison, the group of people that used PV attained fewer goals and members felt less energetic.⁵⁶ Thus, Dr. Oettingen concluded based on these results, which were corroborated by physiological tests that

⁵¹Tony Robbins Official Website, "Home," <http://www.tonyrobbins.com/> (accessed May 5, 2014).

⁵²Tony Robbins Official Site, "Why It Works," <http://www.tonyrobbins.com/> (accessed May 5, 2014).

⁵³David DiSalvo, "Visualize Success if You Want to Fail," *Forbes Magazine*, June 8, 2011, 2.

⁵⁴*Ibid.*

⁵⁵*Ibid.*

⁵⁶*Ibid.*

conjuring positive fantasies of success drains the energy out of ambition because peoples' brains inadvertently respond as if they have already accomplished their goal.⁵⁷

Psychologist, Susan Jeffers, found a middle ground. She believes, "in expanding the idea of PV by learning to let go of the outcome and accept it whether it is bad or not the way we wanted it."⁵⁸ She continues to explain that, "by doing so, a person can find a way to learn from that experience and 'grow' from it."⁵⁹ A person must also expand their comfort zone by taking little risks regularly in order to get stronger.⁶⁰ She also believes the key to success is how a person can use fear to position themselves forward, and that anxiety can motivate people to work incredibly hard.⁶¹ Jeffers, a breast cancer survivor, states, "Those [people] who experience the worst [situations] know best that you can handle whatever happens to you."⁶² This concept is similar to post-traumatic growth experience that veterans with PTSD deal with during the Army's resilience training.

In the *NY Times* article, "Post-Traumatic Stress's Surprisingly Positive Flip Side," the intent of the resilience training is to help soldiers become more resilient and to help them recognize how the trauma of combat can change them for the better.⁶³ Also

⁵⁷Ibid.

⁵⁸Stefanie Scarlett, "Fear Factor, 'Living Large' is way to push fright out of life," *The Journal Gazette*, June 13, 2005.

⁵⁹Ibid.

⁶⁰Ibid.

⁶¹Ibid.

⁶²Ibid., 2.

⁶³Jim Rendon, "Post-Traumatic Stress's Surprisingly Positive Flip Side," *The New York Times*, March 22, 2012.

according to the article, one of the first studies, published in 1980, was on aviators captured during the Vietnam War. The study reported that 61 percent of the veterans said they had benefited psychologically from their experience of captivity.⁶⁴ The veterans also admitted they had stronger religious convictions, appreciated others more, and enjoyed life more.⁶⁵ Moreover, these comments still held true 25 years later during a follow-up study.⁶⁶ The down-side is not everyone changes for the better. Some veterans become dependent on substance and alcohol abuse. Unfortunately, even though post-traumatic growth has successful testimonies it cannot be objectively defined or measured, according to Howard Tennen, a professor for the University of Connecticut.⁶⁷

Physical rehabilitation uses PV and has had miraculous results. William Jarvis, author of “People of Praise: Visualization serves as a crucial tool for success” in the *Journal Gazette*, was in a serious car accident that left him in a coma for five weeks and paralyzed.⁶⁸ He physically and psychologically overcame his adversity by using PV. He attests, “The ability to visualize and use imagination to see improvement and retain a mental image of what a person hopes to accomplish will have a direct effect on the progress. Lack of visualization will negatively affect progress.”⁶⁹ Through short and long

⁶⁴Ibid., 3.

⁶⁵Ibid.

⁶⁶Ibid.

⁶⁷Ibid., 8-9.

⁶⁸William Jarvis, “People of Praise: Visualization Serves as Crucial Tool for Success,” *The Journal Gazette*, October 1, 2005.

⁶⁹Ibid.

term goals during his rehabilitation sessions he continued to use PV while working on his graduate degrees because it helped him to keep focused on completing requirements for graduation.⁷⁰

Coach Don Flanagan of the University of New Mexico women's basketball team is also a dedicated advocate of PV.⁷¹ Coach Flanagan trains his players to treat PV just like any other basketball drill.⁷² His winning records are evidence of the results of PV. Coach Flanagan believes that athletes can improve in ways other than conditioning. His sentiments on PV are:

Some coaches do not understand why players do not get any better, they still do not consider that the way players think is the way they will play. . . Everybody that reaches the age of 18 has as many negative thoughts as positive thoughts about themselves. If [coaches] do not find ways to help them improve the way they see themselves, they will not have the confidence to trust themselves on the court. They will struggle in basketball and life.⁷³

PV can be observed to have an impact on a professional level besides the collegiate and Olympic level. Coach Jim Fannin is another PV advocate, and he worked with professional all-stars Luke Donald of golf and Alex Rodriguez of baseball, as well as Fortune 500 Chief Executive Officers (CEOs).⁷⁴ The secret to his success is for his

⁷⁰Ibid., 3.

⁷¹Iliana Limn, "A Beautiful Mind; Coach Flanagan uses Positive Thoughts, Visualization to Become the Winningest Coach in Lobos Basketball History," *Albuquerque Journal*, December 9, 2006.

⁷²Ibid.

⁷³Ibid., 3.

⁷⁴Connell Barrett, "How to Think Like a Champion," *Golf Magazine* 55 no. 1 (January 2013): 5.

clients to think their way into the zone, reaching their greatest potential.⁷⁵ To prove his point, Fannin participated in a study that included three amateur male golfers to improve their performance. Two of his methods include “rebooting your brain” and positively using stress. In order to reboot one’s brain, they must visualize their greatest golf fear then close their eyes, unhinge their jaw, and lift their head up for thirty seconds.⁷⁶ All three golfers stated their mind was clear, which allowed them to focus on their next target. As soon as the golfers hit their shot, they had to power-walk to their next shot. Power-walking after shots conditioned the golfers to get used to swinging with an accelerated heart rate.⁷⁷ At the end of the experiment, all three golfers said they felt the PV lessons learned had a positive impact on their golf game and scores.⁷⁸

Coach Fannin’s example shows that the average athlete can learn and utilize PV, but most people have a basic knowledge of PV. However, this skill may not transcend easily to soldiers who must juggle a plethora of tasks every day and may not want to devote more time and energy into a skill they may not need. Soldiers would need to learn the fundamentals of PV to change their perspective to become positive and reflect in their goal setting.

⁷⁵Ibid., 3.

⁷⁶Ibid.

⁷⁷Ibid.

⁷⁸Ibid., 5.

The U.S. Navy's elite organization, SEAL's, promotes PV. SEALs take their name from the environments in which they operate sea, air and land.⁷⁹ Just as Fannin had his golfers reboot their brain, one of the SEAL's lessons is to release the negative or bad thoughts and move on to the next thoughts which are usually more positive and focus on them.⁸⁰ Another lesson is to coach someone through an upcoming experience by thinking about as many details as possible in order to build confidence, mental conditioning, and strength.⁸¹ Lastly, they urge their sailors to be confident in themselves because mostly everyone is physically stronger and mentally tougher than he or she thinks.⁸²

PV is also applicable to other venues besides sports and the military. For example, Joan M. Vitello-Cicciu, RN, Ph.D., FAAN, cites that a nurse leader must offer sensitivity and responsiveness to nurses' increased physical and emotional labor.⁸³ PV is a strategy that may help in order to do this. For example, she says, "Consider using this [PV] technique in anticipation of a difficult encounter with a staff member, rehearse what you may say ahead of time and project a positive picture of a productive encounter."⁸⁴

⁷⁹Department of the Navy, "Overview," Navy SEAL official webpage, <http://www.sealswcc.com/navy-seals-overview.html> (accessed May 5, 2014).

⁸⁰Department of the Navy, "Building Mental Toughness," poster on Operational Stress Control, October 2013.

⁸¹Ibid.

⁸²Ibid.

⁸³Vitello-Cicciu, "Innovative Leadership Through Emotional Intelligence," 30.

⁸⁴Ibid., 31.

CHAPTER 3

RESEARCH METHODOLOGY

Visualize this thing that you want, see it, feel it, believe in it. Make your mental blue print, and begin to build.

— Robert Collier

This chapter discusses the means and criteria the researcher used to collect and analyze data to answer the primary and secondary research questions. This research provides a holistic process of how the researcher used different methodologies to gain qualitative data related to positive visualization (PV).

The first methodology the researcher conducted was analyzing the Army's Comprehensive Soldier Family and Fitness (CSF2) resilience training. The goal for this was to find aspects of PV used in the training. A major source used at the beginning of the research was a January 2011 special issue on Comprehensive Soldier Fitness in the *American Psychologist Journal*. It describes the catalyst that began the initial scientific research of the program, what the program consists of, and how it became a major program for the U.S. Army.⁸⁵ In order to find out the most current data on the CSF2 program, the researcher explored the CSF2's official website. It led the researcher to learn how the Army implemented CSF2 into today's Army forces, which is referred to as Institutional Resilience Training (IRT).

⁸⁵Casey, "A Vision for Psychological Resilience in the U.S. Army," 1.

According to the U.S. Army Medical Department's website on resilience training, an IRT lesson plan consists of fundamental resilience skills that involve PV.⁸⁶ As previously defined in chapter one, IRT refers to initial training such as Basic Combat Training (BCT) for enlisted personnel and Basic Officer Leaders Course (BOLC) for officers. These fundamental skills are designed to teach brand new soldiers resilience and mental fitness. Specific examples of these skills include ABC, Thinking Traps, Icebergs, and Energy Management.⁸⁷ All of them utilize PV and were previously defined in chapter one.

The researcher conducted historic interviews of former company commanders at BCT in Fort Jackson, South Carolina. These interviews provided qualitative research that gauged whether they observed recruits utilizing the PV skills they learned during resilience training. The participants were informed as to the purpose of the interview and signed a consent form to participate. The consent form acknowledged the participants knew their right to choose whether or not to participate in the oral history interview and could cease participating at any time without penalty. Moreover, they were informed the anticipated risk was negligible, and no direct personal benefit was offered to the participants. The researcher respected the participants' confidentiality during the entire process and at no time was personal information revealed or the participants identified. In addition, prior to publication of any part of the interviews, participants were afforded an

⁸⁶Department of the Army, "Institutional Resilience Training Basic Combat Training (BCT)," U.S. Army Medical Department, <https://www.rto.wrair.army.mil/lifecycle.cfm> (accessed May 5, 2014).

⁸⁷Ibid.

opportunity to verify its accuracy. A copy of the consent form for the oral history interview is in appendix D.

While researching the CSF2 website, the researcher became aware of the Army's Ready and Resilient Campaign (R2C). In 2013, the Army launched the Ready and Resilient Campaign (R2C) Army wide, to include its active, National Guard and reserve components.⁸⁸ It differs from CSF2 by integrating existing programs like the Army Substance Abuse Program and Suicide Prevention Program to address suicides and high risk behavior.⁸⁹ The U.S. Army Deputy Chief of Staff for Personnel, Lieutenant General Howard Bromberg, describes the Army focusing its resources on four lines of effort for the R2C:

First, the Army must determine the efficiency of existing Army programs on high-risk behavior. Next, resilience training begins at the institutional and unit level. Thirdly, a communications campaign that informs and educates the Army of the efforts and supporting programs available on resilience. Lastly, the Army is instilling resilience as part of Army culture.⁹⁰

One of the programs within a line of effort that the Army uses to promote the R2C is Army Wellness Centers (AWC's). The AWC teaches the performance triad of rest, activity, and nutrition. Just like the CSF2, PV is a major skill within the AWC's rest component, which consists of a stress management class and a biofeedback lab between

⁸⁸Howard Bromberg, "Toward a ready and resilient Army-leaders' responsibilities in R2C," www.dcmilitary.com (accessed May 5, 2014).

⁸⁹Department of the Army, "Home," U.S. Army Ready and Resilient, <http://www.army.mil/readandresilient> (accessed May 5, 2014).

⁹⁰Bromberg.

the individual and a trained specialist.⁹¹ The researcher conducted participant observation for these services at the AWC in Fort Leavenworth, Kansas. Here the researcher learned first-hand how PV is learned and used to achieve stress reduction. The researcher also conducted purposeful sampling to interview key personnel within the AWC faculty in order to provide foundational information and subject matter testimony on the effects of PV. Conducting interviews with an AWC instructor and the Fort Leavenworth, Kansas AWC director provided knowledge of the program and its integration with CSF2 and R2C. The same protocol that was conducted for the BCT oral history interviews was followed in the AWC interviews.

⁹¹Combined Arms Center in Fort Leavenworth Kansas, “Fort Leavenworth Ready and Resilient Orientation for Battalion and Brigade Commanders and Command Sergeants Majors” (powerpoint presentation, 29 October 2013), 12.

CHAPTER 4
ANALYSIS

Seeing is believing.

— Unknown

Analysis of Primary Research Question

The main research question was: How can positive visualization (PV) benefit the United States Army? The researcher used Army Doctrine Publication (ADP) 7-0, “Training Units and Developing Leaders,” as a guideline for the PV skill. Army forces conduct training individually and collectively in three training domains, which are institutional training, operational training, and self-development training. Institutional training consists of the initial and subsequent training at each level of professional military education (PME) such as Basic Combat Training (BCT) and Basic Officer Leaders Course (BOLC) as previously discussed in chapter 1.⁹² Operational training is at the unit level conducting training activities or exercises.⁹³ Self-development training compliments both institutional and operational training and is learning that increases an individual’s personal and professional knowledge.⁹⁴ Using the Army’s training domains and resilience training model in figure 1 and 2 will show how soldiers will continue to sustain and develop the PV skill throughout their careers.

⁹²Department of the Army, ADP 7-0, G1.

⁹³Ibid.

⁹⁴Ibid.

BCT and BOLC are examples of the institutional training domain that teaches brand new soldiers to use a skill that helps them throughout their Army career. At each major level of PME, the scope of PV is directly proportional to the level of responsibility of the soldier. Institutional training domain can be referred to as a “bottom-up” approach because it teaches a skill directly to brand new soldiers. Contrary to this approach and more typical in the army is the “top down” approach in which the higher ranking leaders receive the training at their units in order to teach their subordinates. A benefit of the bottom-up approach is that it may help the soldiers more because they learn it directly from a certified and trained subject matter expert. Figure 1 illustrates resilience training model in enlisted PME and figure 2 shows the courses for officers.

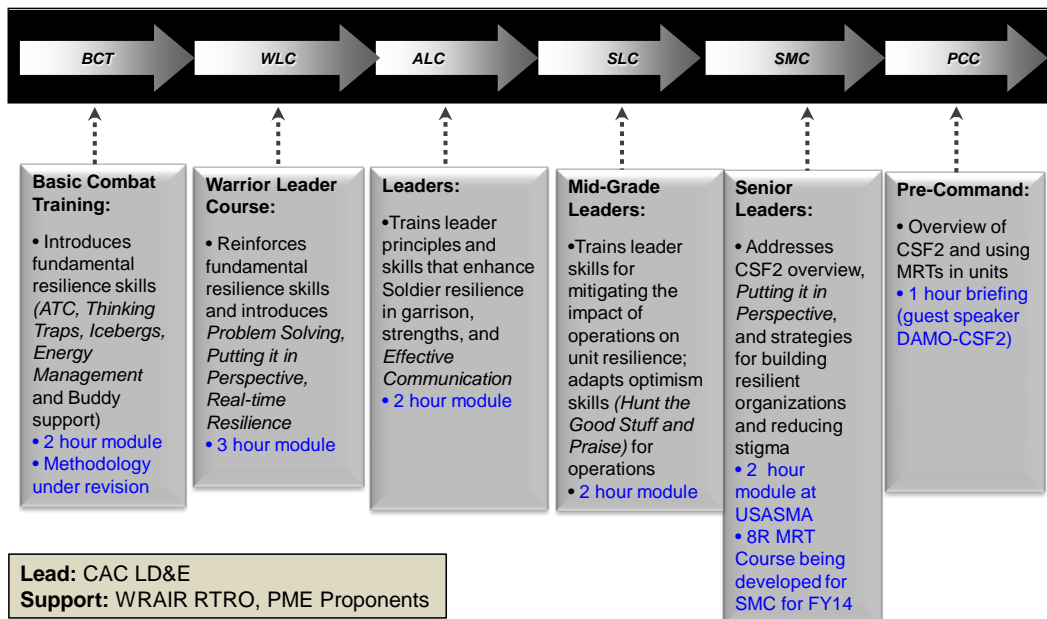


Figure 1. Resilience Training Model Through Enlisted PME

Source: Army’s Comprehensive Soldier Family and Fitness Website, <http://csf2.army.mil/irt-enlisted.html> (accessed May 5, 2014).

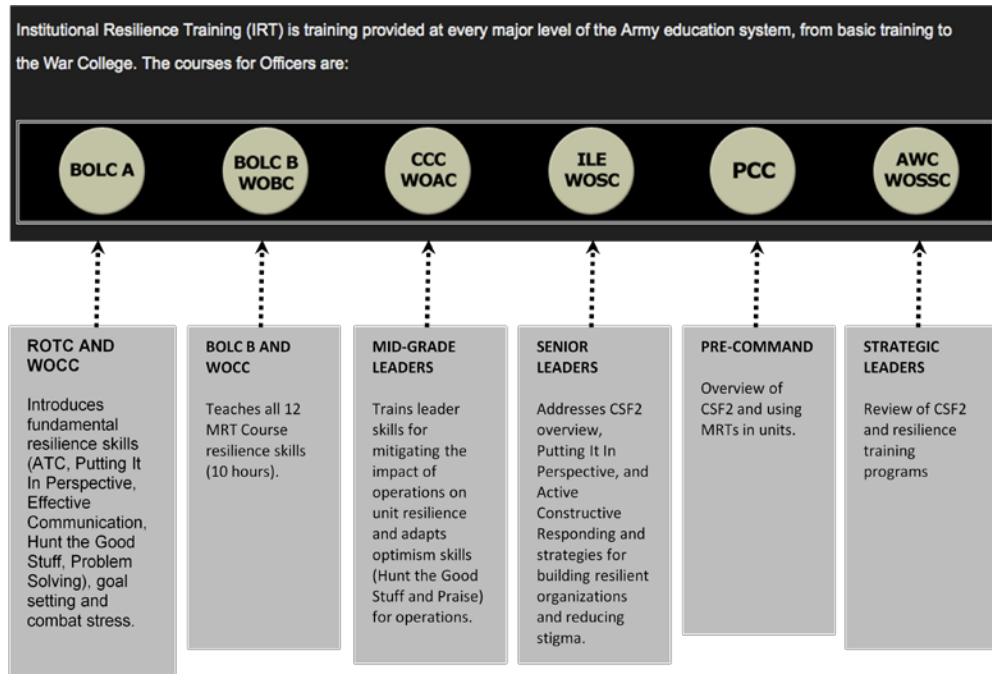


Figure 2. Institutional Life Cycle for Officers

Source: Army’s Comprehensive Soldier Family and Fitness Website, <http://csf2.army.mil/irt-officers.html> (accessed 30 May 2014).

At each IRT for enlisted personnel and officers there is a mandatory number of hours required for resilience training. According to the CSF2 website, it is a two hour introductory class at BCT and for BOLC A on resiliency training.⁹⁵ Additionally, officers receive another ten hours of resiliency training during BOLC B.⁹⁶ Based on historic oral interviews with two past BCT company commanders, recruits at BCT do not remember or use the PV training they were taught, which may be due to the resilience training being

⁹⁵Comprehensive Soldier and Family Fitness, “Institutional Resilience Training (enlisted),” <http://csf2.army.mil/irt-enlisted.html>, (accessed May 5, 2014).

⁹⁶Comprehensive Soldier and Family Fitness, “Institutional Resilience Training (officers),” <http://csf2.army.mil/irt-officers.html> (accessed May 30, 2014).

only a two hour class and scheduled within the first couple days of BCT. One of the prior BCT company commanders explained, “Recruits are getting lots of classes, approximately twenty-five, during Red [initial] Phase and become overwhelmed. . . Probably forget.” Recruits do not receive a class on PV per se, but they receive a resilience training class in which PV is a sub-skill of resilience training. Also during one of the historic interviews with a former BCT company commander, “Cadre [Drill Sergeants] go to a two week course, in accordance with Training Doctrine 350-6 for resilience training, and attend a two to four hour Cadre Resilience Program. [As a company commander] I sat on multiple classes by Drill Sergeants to recruits on how to handle failure and overcome adversity, visualize success, and become resilient.” Also, it is evident that leaders “spot check” or witness first-hand the efficiency of these classes. When asked, “In your opinion, did the resilience-training benefit the recruits in BCT, if so, in what way(s)?” The previous company commanders described that the training helped the older and mature recruits, but the younger recruits were overwhelmed during training. The average age of recruits in Basic Combat Training (BCT) is 18-24 years of age.⁹⁷ Also according to the interview of the previous BCT company commander, “The older and mature recruits became better leaders with their peers and helped younger peers with disappointments. For example, if a younger recruit failed an exercise, the older recruit helped by telling them that it is not the end of the world so keep trying.” By comparison, the BCT recruits receive a substantially lesser amount of PV training compared to the BCT instructors and BOLC officers, which receive ten hours more

⁹⁷Hilary Lehman, “Army Welcomes Older Recruits Looking for Stability,” *Tampa Bay Times*, June 13, 2010.

training. It is no wonder that many BCT recruits forget the skill or need help remembering it. Fortunately, those recruits that do not retain the PV skill during BCT still have an opportunity to do develop and sustain it in the other two training domains.

The unit's Master Resilience Trainer (MRT) is an example of the operational training domain and is responsible for sustained training of the resilience skills the soldiers learned. The Commanding General of Training and Doctrine Command mandated "competent leaders be trained as Master Resilient Trainers across every unit at the company level."⁹⁸ MRT's train individuals and units in behavior and resilience. The soldiers' first line supervisors are required to counsel the incoming soldiers on their requirements and establish goals. These resources can sustain PV as soldiers continue to develop and seek promotions.

ADP 7-0, *Training Units and Developing Leaders*, states, ". . . Soldiers are expected to fill in their skills, knowledge and behavior gaps from institutional training and operational assignments."⁹⁹ In other words, the self-development training domain puts the onus on the individual to continue resilience training on their own. Soldiers that graduate BCT and BOLC have the opportunity to sustain and improve their PV skill at resources like the Army Wellness Centers (AWC). Table 1 shows the number of active duty personnel that attended an appointment at the AWC in Fort Leavenworth, Kansas. As previously explained in chapter 3, AWC's help Army personnel, families, and civilians with their performance related to physical activity, nutrition, and rest. This is important because the rest category is where individuals are taught PV and how to use it

⁹⁸Comprehensive Soldier and Family Fitness, "CSF2 FAQs."

⁹⁹Department of the Army, ADP 7-0, 3.

in the stress management class and lab. So, although table 1 shows all the AWC appointments it does not have them broken down to show how many personnel attended AWC to learn stress management and PV. Nonetheless, the researcher, through participant observation, observed first-hand other personnel participating in the stress management class and lab, which may show interest of PV at that particular installation. One can assume that there will be a continued interest in PV across more Army installations. Of note, in table 1 the number of patient encounters dipped below average in December and June due to students graduating Command and General Staff College (CGSC). The AWC office is adjacent to the CGSC building which is briefed to CGSC students upon in-processing. The proximity of the AWC office and the awareness of the resource may also have had a positive effect on increasing these statistics.

Table 1. Army Wellness Center Patient Encounters												
# Patient Appts over 1 yr	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13
Retirees	8	19	7	10	11	19	2	28	15	25	25	16
Family Members	19	63	35	137	115	102	51	99	128	155	175	117
Civilian	32	38	27	11	14	16	6	22	18	16	16	11
Active Duty	32	116	183	205	199	181	98	219	226	228	160	188
**Data collected locally from Composite Health Care System												

Source: Army Wellness Center Fort Leavenworth.

Additionally, as previously mentioned in chapter three, AWC's are one of the many programs that are a part of the Ready and Resilient Campaign (R2C). According to Lieutenant General Patricia Horoho, the Army's Surgeon General:

The Performance Triad – activity, nutrition, and sleep – returns the Army back to health basics by emphasizing that the soldier and Army family get enough physical activity, proper nutrition and adequate sleep to be mentally and physically fit. The Performance Triad is nested within the Ready and Resilient Campaign and promotes healthy choices. It complements the Comprehensive Soldier and Family Fitness program and Department of Defense's Operation Live Well.¹⁰⁰

Figure 3 illustrates the support of the AWC resource among many other programs within the R2C.

¹⁰⁰Patricia Horoho, "Senior Leader Spotlight," *CSF2 Quarterly* 5 (October 2013): 1.



Figure 3. Ready and Resilient Campaign with Supporting Army Programs

Source: Army Wellness Center.

Analysis of Secondary Research Questions

Is there scientific data that describes PV

This secondary research question attempted to give credibility to PV by scientifically explaining how PV works. With credibility, PV training can be taken more seriously by soldiers. Additionally, in order to answer this question besides conducting a literature review, the researcher participated in the stress management class and lab services that AWC offers using PV in order to learn how it works first-hand.

In 1984, sports applied PV when Russian researchers studying Olympic athletes found that Olympians that used PV experienced a positive impact on their biological

conditioning and performance.¹⁰¹ There is evidence, “using positron emission tomography scanning, that the optic cortex, a part of the brain that is responsible for seeing, operates the same way whether a person imagines a picture or sees an object.”¹⁰²

The following description by Thomas Newmark from “Cases in Visualization for Improved Athletic Performance,” describes the process of visualization within the brain.

Functional MRI brain research supports PV. Brain imaging shows during PV that there is a shift in activity from the left to the right hemisphere. The right hemisphere involves creative imagination while the left is logical thinking. The transfer from the logical side to the creative side of the brain enhances visual imagery and performance. Using the imaginative skill of the right brain helps make imagery sessions more vivid. Internal visualization creates neural patterns in the brain and improves neuromuscular coordination. Because the brain tells the muscles how to move, stronger neural patterns thus result in “clearer, stronger movement.”¹⁰³

As defined by AWC’s stress management lesson plan, an individual’s stress can be evaluated by monitoring the individual’s heart rate variability (HRV) through a finger sensor. HRV is a measure of the beat-to-beat changes in heart rate.¹⁰⁴ Essentially, if a person feels happy or positive then his or her HRV displays regular variations in rate and rhythm. Conversely, if a person feels frustration then his or her HRV is erratic. See figure 4.

¹⁰¹Thomas Newmark, “Cases in Visualization for Improved Athletic Performance,” *Psychiatric Annals* 42, no. 10 (October 2012): 385.

¹⁰²Mayo Clinic Health Letter Site, “Enhancing Your Healing,” <http://HealthLetter.MayoClinic.com> (accessed October 8, 2013).

¹⁰³Newmark, “Cases in Visualization for Improved Athletic Performance,” 387.

¹⁰⁴Timothy P. Culbert, M.D. with Howard Martin and Rollin McCraty, Ph.D., *A Practitioner’s Guide* (Boulder Creek, CA: HeartMath LLC, 2010), 4.

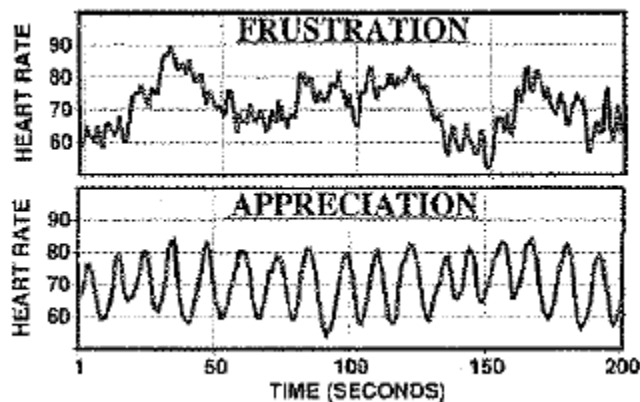


Figure 4. Heart Rate Variability of Frustration and Appreciation

Source: Timothy P. Culbert, M.D., Howard Martin, and Rollin McCraty, Ph.D., *A Practitioner's Guide* (Boulder Creek, CA: Heart Math LLC, 2010), 4.

If PV is successful, how often does it work

This research question intended to show the consistency of PV as a learned skill. It was necessary to answer this question because it provided insight into how much or how often PV training should occur during soldiers PME's, at their unit, or career. An example of how often PV works is illustrated in figures 5 and 6. These figures compared the researcher's HRV versus the facilitator's HRV during the individual stress management lab at AWC. Note that the facilitator's HRV has half as many peaks compared to the researcher's, which has many instances of being irregular in rate and rhythm. Essentially, these figures show how a practiced PV user can mitigate stress compared to an unpracticed PV user that cannot. Additionally, both HRV's are significantly high in the first minute. This is due to being cued per the program's instruction to apply the coherence steps of focus, breathing, and feeling. Focus involves

applying the participant's attention to their body, specifically their heart.¹⁰⁵ Next was the participant's breathing, which each inhale and exhale lasted five to six seconds.¹⁰⁶ Lastly, the participant visualized a positive thought or found a positive feeling.¹⁰⁷ A practiced PV user uses PV daily between 5 to 15 minutes in order to score consistently in the stress management lab and mitigate stress.¹⁰⁸ See figures 5 and 6.

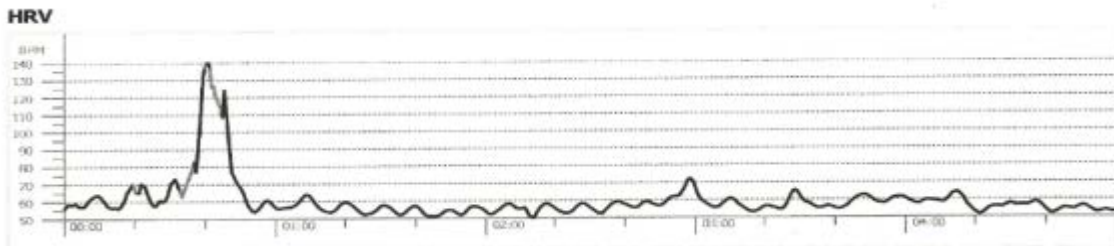


Figure 5. Practiced PV User's Coherence Results in AWC's Stress Management Lab

Source: Army Wellness Center, Fort Leavenworth, Kansas

¹⁰⁵Ibid.

¹⁰⁶Ibid.

¹⁰⁷Ibid.

¹⁰⁸Tracy Conard, interview by author, Fort Leavenworth, Kansas, December 17, 2013.

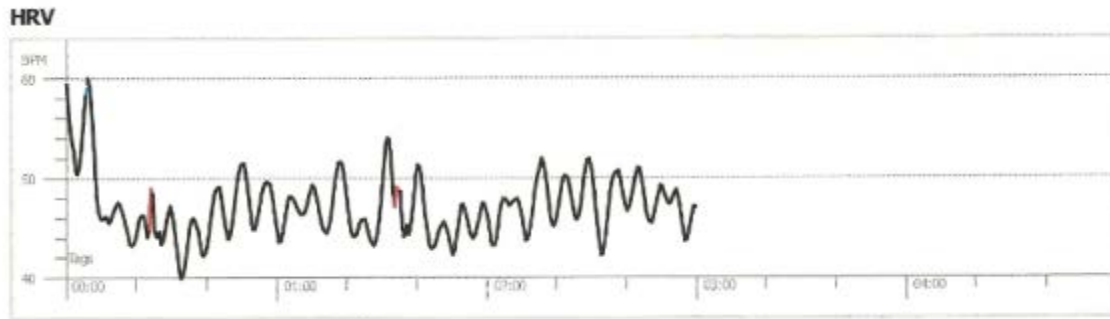


Figure 6. Novice PV User’s Coherence Results in AWC’s Stress Management Lab

Source: Army Wellness Center, Fort Leavenworth, Kansas

During the researcher’s historic interview with a previous BCT company commander the interviewee was asked, “Is there anything else you would like to add that could benefit this interview” the participant responded “. . . Recruits may benefit from receiving PV training later in the course or spread out the classes over the ten weeks; I use it [PV] every day, I love it; I learned it at West Point where I did football.” Though this testimony is feedback for only a single case, it does provide insight that PV training may have a long lasting effect on soldiers.

Are there testimonies that prove or disprove PV

The point of this research question was to find out the advantages and disadvantages of PV through the researcher’s methodologies. The researcher utilized the testimonies from interviews to help answer the question. The lists of questions for the AWC interviews are in appendix A and the questions for the historic interviews are in appendix C.

The researcher interviewed both a nurse educator, who teaches the nutrition and stress management classes at AWC, and the AWC director, who has oversight over the entire program. Both interviewees believe in PV because it is a scientific application to reduce and manage stress. Both have also personally tried PV by participating in the stress management lab. Another question asked of the interviewees was, what can PV offer soldiers? One answer included that soldiers can decrease blood pressure and stress.¹⁰⁹ Soldiers that suffer from Post Traumatic Stress Disorder (PTSD) can also benefit from PV.¹¹⁰ The caveat is that the method must be practiced and applied in daily routines.¹¹¹ For example, a method called “freeze framing” explains how to handle daily stressors by finding positive aspects in a situation or the person’s life.¹¹²

Through a historic oral interview, the researcher asked two previous company commanders at BCT whether they observed recruits personally use PV? Both responded that they observed recruits use PV during BCT training despite it being only a two hour class near the beginning of the course. An occurrence mentioned recruits conducting range drills by “shadow boxing,” which is a method in which recruits visualize performing on their weapon without ammo to help recruits with nervousness. An observation noted by both interviewees was that the older and more mature recruits and the recruits that took the resiliency training seriously exhibited using PV more frequently. According to the interviewees, this in turn led them to be better leaders with their peers

¹⁰⁹Ibid.

¹¹⁰Ibid.

¹¹¹Ibid.

¹¹²Ibid.

and help them with disappointments by encouraging them to keep trying. A caveat by both interviewees was that there needed to be more resilience training classes because recruits did not remember the training even though the drill sergeants (instructors) would informally remind the recruits of the training at each phase or major training event.

Are there U.S. military organizations or civilian companies,
nationally or globally, that currently use PV

Knowing if there are other military organizations or civilian companies that currently use PV in the U.S. or other countries is important because it may help improve the U.S. Army's PV training. For example, by finding out why other organizations do PV training, how they measure success, or what were their lessons learned may provide beneficial information. The U.S. Army could compare its program to the other programs to find similarities and differences to discover the best practices and effects to make it the best program possible.

As previously mentioned in chapter 2, many organizations currently use PV as part of training for their employees. Organizations include Fortune 500 civilian companies, coaches and players at the high school, collegiate, professional, and Olympic levels, as well as elite forces in the U.S. military like the Navy SEAL's. Another organization that uses PV that became evident throughout the researcher's methodologies is the United States Military Academy's (USMA) Center for Enhanced Performance (CEP) at West Point. This organization's department is noteworthy because it had a part in the initial development of the Master Resilience Trainer (MRT) training curriculum.¹¹³ According to USMA's website, www.westpoint.edu, the Performance Enhancement

¹¹³Cornum, Matthews, and Seligman, 8.

Program’s mission is to “educate and train cadets in performance enhancement techniques that foster their full development as leaders of character.”¹¹⁴ Also according to their website is the description of this program:

Performance enhancement training is built upon an understanding of how thoughts and emotions interact with anatomy and physiology to dramatically affect human performance. To take advantage of this connection between the mental and the physical, the Performance Enhancement Program provides training in the five interrelated mental skills pictured above. Each skill is presented in its own detailed multi-lesson protocol and is customized for each cadet. The program is not a quick fix or a magic pill of any kind.¹¹⁵

Figure 7 provides the USMA’s systematic approach to “empowering individuals and organizations that integrate the program’s five mental skills around a unifying conceptual understanding of the psychology of improvement and success.”¹¹⁶ The PEP’s concept is important because it is a program that focuses much time on learning and practicing PV, which may set an example for the U.S. Army’s PV training and resilience training. See figure 7.

¹¹⁴United States Military Academy, “Performance Enhancement Program Mission.”

¹¹⁵Ibid.

¹¹⁶Ibid.



Figure 7. Performance Enhancement Program's Education Model

Source: United States Military Academy, "Performance Enhancement Program Mission," <http://www.westpoint.edu/cep/SitePages/PEP.aspx> (accessed May 5, 2014).

The Canadian Forces also have a resilience training program that shares some of the same mental skills, such as PV, used in the U.S. Army's resilience training. About the same time that the U.S. Army was creating their CSF2 program, the Canadian Forces conducted a study that "recognized a significant amount of their soldiers that suffered from Post Traumatic Stress symptoms and depression due to operations in Afghanistan and other theatres."¹¹⁷ In response, they created a resilience training program based on their foundational skills called "The Big Four" which consists of goal setting, mental rehearsal or visualization, self-talk, and arousal management.¹¹⁸ Similar to the U.S. Army's resilience training at BCT, Canada's resilience training only serves as an introduction to resilience development in their entry level of Professional Military

¹¹⁷D. Craig Aitchison, "Building Resilient Warriors: Taking the Canadian Army's Resilience Training Beyond the Classroom" (Monograph, School of Advanced Military Studies, 2012), 4.

¹¹⁸Ibid., 16.

Education and is not progressively built through a recruit's training.¹¹⁹ The Canadian Forces Resilience Training programme mirrors the U.S. Marines Corps (USMC) resilience training called Mind Fitness and served as a model for them.¹²⁰

The U.S. Marines Corps (USMC) also practices PV.¹²¹ After a decade long war, they too are experiencing a significant amount of Marines suffering stress-related disorders, so they adopted a resilience training program.¹²² The USMC bases its resilience training on Mind Fitness, which allows each Marine to function at an optimal level in stressful, uncertain, and complex environments.¹²³ It originates from the Mind Fitness Training Institute in Alexandria, Virginia. According to the Mind Fitness Institute Training website, it is a “non-profit research and training organization dedicated to teaching mindfulness and resilience skills that enhance performance and strengthen response to stress, change, and uncertainty.”¹²⁴ The training's focus is to “prepare individuals and groups to adapt, learn, and succeed in highly challenging operational

¹¹⁹Ibid., 1.

¹²⁰Ibid., 29-30.

¹²¹James K. Sanborn, “Mind Fitness Routines Fight Combat Stress,” *Marine Corps Times*, October 3, 2011, <http://www.marinecorpstimes.com/article/20111003/NEWS/110030329/Mind-fitness-routines-fight-combat-stress> (accessed May 5, 2014).

¹²²Ibid.

¹²³Mind Fitness Training Institute, “About Us,” <http://mind-fitness-training.org/about.html> (accessed May 30, 2014).

¹²⁴Ibid.

environments.”¹²⁵ The significance of this training is described by its founder and retired military officer, Elizabeth A. Standley, Ph.D. She states:

When our body is flooded with the fight-or-flight response, the part of our brain that controls strategic planning and decision making gets impaired. We want to condition the body-and-mind interaction to bring those mental functions back online quicker and improve the decision-making process. To build resilience, we need a stress response to push us out of our comfort zone, but we also need effective recovery to come back to [a] baseline.”¹²⁶

In order to do this, individual’s must “re-wire” their brain. “Re-wiring” a person’s brain is a process called neuroplasticity, which involves the brain’s ability to make new neural connections.¹²⁷ Contrary to popular belief, adults’ brains can still be molded throughout one’s life allowing for Mind Fitness training.¹²⁸ Figure 8, left portion, illustrates how stress can help performance or hinder it based on the length of time and amount of stress.¹²⁹ However, the right portion of figure 8 shows how Mind Fitness teaches individuals how to tolerate and regulate the stress response effectively in the body and mind to extend the range of optimal performance under stress.

¹²⁵Ibid.

¹²⁶Ryan Carpenter, “Researchers study Marines’ mind fitness,” July 18, 2011, <http://www.11thmeu.marines.mil/News/NewsArticleDisplay/tabid/2683/Article/22079/researchers-study-marines-mind-fitness.aspx> (accessed May 30, 2014).

¹²⁷Sandborn, “Mind Fitness Routines Fight Combat Stress.”

¹²⁸Ibid.

¹²⁹Mind Fitness Training Institute, “Training: What is Mind Fitness and Why Do I Need It?,” http://mind-fitness-training.org/tr_what_perf.html (accessed May 30, 2014).

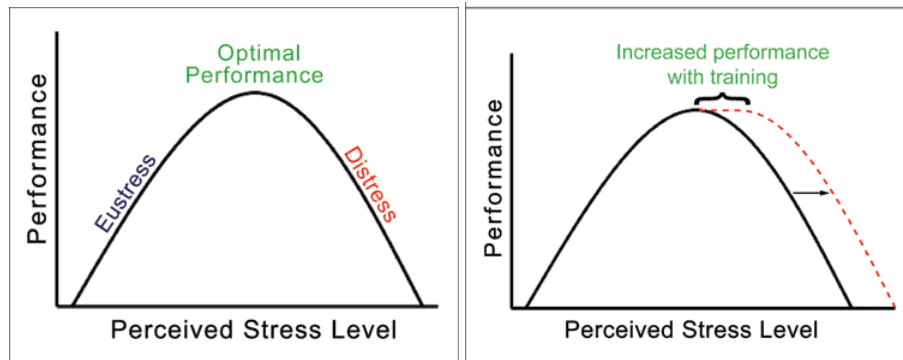


Figure 8. Range of Optimal Performance Under Stress

Source: Mind Fitness Training Institute

The Army’s resilience training is similar to Mind Fitness in that they both utilize PV, and both programs’ goal is to achieve optimal reaction or performance. The Army understands that achieving optimal reaction from every soldier is not always the case. It describes that soldiers will experience different initial reactions or stress ranging between four elements of behavioral, emotional, physical, and mental. If those reactions are normal given the circumstances and do not hurt performance then the individual should continue as trained. If those reactions are not normal then the individual needs to adjust those reactions using a set of learned skills. Those skills, which were previously defined in chapter 1 are thinking traps, positive self-talk, energy management, and ABC.

The Marine Corps participated in a pilot study of Mind Fitness in 2008, in which 37 reservists received Mindfulness-Based Mind Fitness Training (MMFT), pronounced “M-fit,” before serving a combat deployment to Iraq.¹³⁰ These Marines were compared to another group that did not receive MMFT before their deployment. The Marines

¹³⁰Mind Fitness Training Institute, “Research,” http://mind-fitness-training.org/re_pilot.html (accessed May 30, 2014).

participated in a battery of tests, such as self-report questionnaires, that measured aspects of attention, working memory capacity, the capacity to maintain attentional control over time, perceived stress levels, and emotional experience.¹³¹ According to the Mind Fitness Institute Training website:

The results from this pilot study suggest that MMFT may protect against the cognitive degradation that often accompanies pre-deployment training. The results showed that the more time Marines engaged in MMFT exercises outside of class, the greater the improvement in their cognitive functioning, the greater the decrease in their levels of perceived stress, the greater the decrease in their negative emotions, and the greater the increase in their positive emotions – despite an objective increase in stressors during the pre-deployment period.¹³²

The biggest lessons learned for Mind Fitness is that managing stress is more than simply feeling good and that efforts to desensitize troops can contribute to chronic stress, which impairs readiness.¹³³ The military once relied on "stress inoculation training," which exposed Marines to battlefield sights and sounds so that they illicit less of a reaction the next time.¹³⁴ Consequently, Dr. Stanley believes the ideal approach is to pair stress inoculation with Mind Fitness.

In 2011, the Marine Corps participated in an eight-week research study designed to gauge mental fitness and the associated physical effects while applying techniques to relax and pay attention to their surroundings.¹³⁵ The exercise was limited to 1st Marine Expeditionary Force at Camp Pendleton, California. During the exercise, Marines wore

¹³¹Ibid.

¹³²Ibid.

¹³³Sandborn, "Mind Fitness Routines Fight Combat Stress."

¹³⁴Ibid.

¹³⁵Ibid.

sensors harnessed to their torsos, which monitored breathing habits, heart rate, breath control, blood pressure, and posture in real time.¹³⁶ Researchers also took blood and saliva samples before and after scenarios in order to compare changes in stress hormone levels.¹³⁷ While the exercise showed positive effects and testimonies, the analysis of data is currently ongoing, therefore, mind fitness is not officially part of the entire Marine Corps. This study is noteworthy, even though the analysis is not complete, because it differs considerably from the Army's study on CSF2 titled "Report #4: Evaluation of Resilience Training and Mental and Behavioral Health Outcomes." Report #4 tested soldiers with Master Resilience Trainers in their units experienced increased in self-reported resilience/psychological health versus a more comprehensive focused approach measuring soldiers vital statistics and hormones while using their resilience method during an exercise.

Though the U.S. Army, USMC, and the Canadian Forces had the same cause for creating a resilience program for their soldiers and Marines, they have selected different methods for their programs. By comparison, the researcher observed a couple commonalities between the programs. The Canadian Forces and USMC base their resilience training on PV, whereas, the U.S. Army also uses PV but as a sub-skill within their resilience training. Another similarity is that there is room for improvement within each resilience program, specifically the duration and amount of time dedicated to teaching soldiers resilience training. Between all three programs, there is an enduring progression to discover the best practices and effects in order to protect and develop their

¹³⁶Ibid.

¹³⁷Ibid.

soldiers and Marines. Perhaps a longitudinal study of each military's resilience program could provide the necessary data to compare and contrast the training and methods each organization uses and how each program impacts soldiers' performance and mental health over the course of their career.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Losers visualize the penalties of failure. Winners visualize the rewards of success
— Anonymous

The goal of this research paper was to show the utility of positive visualization (PV) in the U.S. Army. PV has shown to be widely used to enhance performance by athletes and coaches, military organizations both U.S. and globally, and in civilian companies. The U.S. Army recognized the need to address soldiers' mental state because of a rise in suicides and cases of Post Traumatic Stress Disorder due to multiple deployments to Iraq and Afghanistan. So the Army developed the Comprehensive Soldier Family and Fitness (CSF2) program to teach resilience and use PV as an important sub-skill to support the program.

Though there is research that PV can benefit people regardless of their profession, the researcher does not have enough empirical evidence to answer definitively if PV can or cannot benefit the U.S. Army. Subsequently, the researcher observed two common themes for improvement during the research and analysis. These improvements may be important because even though PV is a sub-skill of resilience training it may also be a reflection on the Army's CSF2 program.

First, as noted in the *Psychiatric Annals*, "Although visualization can help improve an athlete's performance, it does have its limitations and will not turn an average athlete into an elite superstar."¹³⁸ Soldiers must set realistic goals within their

¹³⁸Newmark, "Cases in Visualization for Improved Athletic Performance," 385.

capabilities. Secondly, PV is a skill that takes time to learn over a lengthy period as demonstrated in the Army Wellness Center's stress management lab between the facilitator and the researcher. Even the United States Military Academy's Performance Enhancement Program states, "The program is not a quick fix or a magic pill of any kind."¹³⁹ Based on the historic oral interviews, the recruits' mandatory two hours of resilience training during their initial phase is substantially inadequate. In order for training to be useful, it must occur on a regular basis. It should be equivalent to exercising the body. The more that soldiers exercise their bodies, the more fit they become. The amount of time spent on the body must be applicable for mental fitness in order to retain the PV skill. Dr. Elizabeth Stanley, the founder of Mind Fitness, which the U.S. Marine Corps' (USMC) model their resilience-training program on, describes this sentiment:

Just like physical exercise changes [everyone's] body, our muscles, our cardiovascular system, . . . If we do these exercises that train our attention and concentration, we are beginning to rewire the brain, we are building new neural pathways. To do that, though, Marines have to develop the exercises as a habit, even after completing the initial eight-week, 20-hour guided course. They must continue to spend at least 30 minutes each day on Mind Fitness.¹⁴⁰

This sentiment is applicable for soldiers at BCT and BOLC. Soldiers may need that training followed up and sustained at their units by the MRT's, leaders, and the chain of command. In order to be effective, the Army cannot let PV be just another mandatory brief that soldiers and leaders quickly forget. PV must be a skill that stays fresh and continuously practiced and sustained such as airborne training-Jumpmaster proficiency

¹³⁹United States Military Academy, "Performance Enhancement Program Mission."

¹⁴⁰Sanborn, "Mind Fitness Routines Fight Combat Stress."

instruction. Sustained Airborne and Jumpmaster training are rehearsed almost weekly after a two week course for each because of the risk of serious injury or loss of soldiers' lives. PV training does not involve that type of risk, but the CSF2 program was created due to soldiers committing suicide and showing symptoms of Post Traumatic Stress.

As previously discussed in chapter 2, there are studies of PV causing negative effects such as draining peoples' energy levels because their brains inadvertently respond as if they already accomplished their goals. Therefore, some experts recommend people should focus on negative outcomes in order to be practical. However, this perspective is contrary to Army leadership and doctrine. Army Doctrine Publication 6-22, *Army Leadership*, describes two attributes of character and presence that the Army wants leaders to meet, "Leaders of character who embrace the Army leader attributes and competencies will be authentic, *positive* [researcher's emphasis] leaders. Presence entails the projection of military and professional bearing, holistic fitness, *confidence*, [researcher's emphasis] and resilience."¹⁴¹ The terms, positive and confidence, used in the Army doctrine counters the negative outcome approach.

A recommendation for future studies on PV is to conduct a longitudinal study to offer insight into the effectiveness of resilience training and PV as a sub-skill. The targeted audience could be a BCT or BOLC class who are tracked throughout their army career on how much they use PV. PV seems like the ideal skill to teach young soldiers at BCT and BOLC since the average age of each is approximately early 20's. Often people that age lack confidence due to inexperience. During the BCT and BOLC course, soldiers learn what it takes to succeed as a soldier in the U.S. Army by doing things for the first

¹⁴¹Department of the Army, ADP 6-22, 5-6.

time, like firing an M-4 rifle during Basic Rifle Marksmanship, or learning to cope with stress both physically and mentally.¹⁴² PV may increase soldiers' capabilities, which may in turn increase their confidence. An increase in soldiers' confidence may mitigate suicides and symptoms of Post-Traumatic Stress. PV may also be used for goal setting towards achieving realistic goals within a person's capability. This process of PV can follow a soldier throughout their career. Eventually, PV will increase at each soldiers' level of professional military education (PME) because they are taught a greater degree of PV given their rank and responsibility. At each PME, the class must take another survey on using PV. The questions should range from their satisfaction in their skill to whether or not they are receiving enough training from their unit MRT and chain of command. Soldiers can also use PV at challenging Mission Occupational Specialty schools such as Ranger School, Sapper School, and Airborne School which have a high attrition rate due to the courses' difficult and stressful requirements.

A longitudinal study may provide empirical evidence and information that the researcher could not answer in the research paper. Soldiers can use PV at their unit during training specifically for soldiers' core tasks that they learned at BCT and BOLC. Learning through repetition and muscle memory is important and can have positive results, but Soldiers' minds must also be involved to maximize those results fully on a more consistent basis. The Army's current doctrine on unified land operations defines unified land operations as, "how the Army seizes, retains, and exploits the initiative to gain and maintain a position of relative advantage in sustained land operations through

¹⁴²Department of the Army, "Basic Combat Training," <http://www.goarmy.com/soldierlife/becoming-a-soldier/basic-combat-training.html> (accessed May 5, 2014).

simultaneous offensive, defensive, and stability operations.”¹⁴³ Not only do soldiers conduct operations in potentially hostile and austere environments, but they must conduct a myriad of tasks simultaneously, as previously mentioned in unified land operations. Therefore, PV may have potential to improve soldiers’ capabilities and enhancement under those conditions.

If other military organizations like the USMC and the Canadian Army base their resiliency programs on PV than why does the U.S. Army not focus solely on PV? The CSF2 program, as previously discussed, includes PV as a sub-skill within the resilience training. According to the *American Psychologist Journal*, the CSF2 is historically significant for two primary reasons.

First, it represents the first psychology-based approach to improving the psychological fitness of all members of an organization with over 1.1 million members including active and reserve components. Second, the Army’s embracing of psychology as the best approach to deal with this problem highlights the relevance of contemporary psychological science to social issues at the macro level.¹⁴⁴

Though the researcher could not prove that PV can or cannot benefit the U.S. Army, the main concern is that the Army is focusing on soldiers’ mental fitness through the use of many different programs and methods.

The U.S. Army has come a long way from ignoring mental fitness to today’s Ready and Resilient Campaign (R2C). Although an achievement in itself, it could not be possible without the progression of medical research and technology as discussed in the research paper’s introduction. It is difficult to measure how much of an impact PV can

¹⁴³Department of the Army, Army Doctrine Publication (ADP) 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, 2011), 1.

¹⁴⁴Cornum, Matthews, and Seligman, 8.

have without increasing the amount of time dedicated to training and practicing the skill. PV may be able to help the U.S. Army, but not everyone can learn PV or benefit from it. However, leaders and soldiers alike must be aware of the resilience training as a whole and the tools available in order to accomplish any mission.

GLOSSARY

ABC is a skill learned during institutional resilience training, such as BCT. Soldiers learn to recognize an activating event (A), their beliefs (B) about the activating event, and the emotional and behavioral consequences (C) of those thoughts.¹⁴⁵

Army Wellness Centers (AWC) promotes enhanced and sustained healthy lifestyles to improve the overall well-being of soldiers and family members through integrated and standardized programs and services. Programs include education on nutrition, physical activity, and stress management.¹⁴⁶

Basic Combat Training (BCT) is a ten week training course that transforms civilians into soldiers. Recruits learn about the Army's Seven Core Values, how to work together as a team, and what it takes to succeed as a soldier in the U.S. Army.¹⁴⁷

Basic Officer Leaders Course (BOLC) is training in order to transform civilian volunteers into Army officers and warrant officers capable of leading upon arrival at their first unit of assignment.¹⁴⁸

Biofeedback is a technique that involves using visual or auditory feedback to gain control over involuntary bodily functions. It may include gaining voluntary control over such things as heart rate, muscle tension, blood flow, pain perception and blood pressure.¹⁴⁹

Comprehensive Soldier and Family Fitness (CSF2) program builds resilience and enhances performance of the Army Family -- soldiers, their families, and Army Civilians. CSF2 does this by providing training and self-development tools so that members of the Army family are better able to cope with adversity, perform better in stressful situations, and thrive in life.¹⁵⁰

¹⁴⁵Reivich, Seligman, and McBride, 28.

¹⁴⁶Army Wellness Center Fort Leavenworth, "Available Programs," <https://www.munson.amedd.army.mil/departments/wellness.htm> (accessed May 5, 2014).

¹⁴⁷Department of the Army, "Basic Combat Training," <http://www.goarmy.com/soldier-life/becoming-a-soldier/basic-combat-training.html> (accessed May 5, 2014).

¹⁴⁸Department of the Army, Training Doctrine Command (TRADOC), Army Regulation 350-36, *Basic Officer Leader Training Policies and Administration* (Fort Eustis, VA: Headquarters, United States Army TRADOC, January 2014), 7.

¹⁴⁹Cherry, "What is Biofeedback?"

¹⁵⁰Comprehensive Soldier Family and Fitness, "About CSF2."

Energy Management is a skill learned during institutional resilience training, such as BCT. Participants manage their energy through a variety of strategies such as meditation, controlled breathing, and positive imagery.¹⁵¹

Guided Imagery is a relaxation exercise that involves focused visualization. This technique directs individuals to use their imagination to picture being in a particular place or situation. To assist in feeling more relaxed and calm, guided imagery allows individuals to envision what it would be like to be in an ideally peaceful, serene, and comforting scene. Typically, guided imagery is conducted by a qualified mental health specialist hence the term “guided”, or by audio recording or written instruction. The process is deepened through guide-directed prompts that require the person to imagine the scene through all of her senses. For instance, a person being guided into her peaceful scene will be directed to bring attention to what she hears, sees, smells, tastes, and touches.¹⁵²

Icebergs are a skill learned during institutional resilience training, such as BCT. Participants identify their “icebergs” (deeply held beliefs) or core values and learn to recognize when these icebergs are driving out-of-proportion emotion. Once the iceberg is identified, they ask themselves a series of questions to determine (a) if the iceberg continues to be meaningful to them, (b) if the iceberg is accurate in the given situation, (c) if the iceberg is overly rigid, and (d) if the iceberg is useful. Then the participants look at how these icebergs contribute to or undermine their effectiveness in the Army, as leaders, and in creating strong relationships.¹⁵³

Institutional Resilience Training (IRT) is the Army’s institutional training and education system, which primarily includes base centers and schools that provide initial training and subsequent professional military education (PME) for soldiers, military leaders, and Army civilians.¹⁵⁴

Master Resilience Trainer (MRT) course provides face-to-face resilience training and is the foundation for training resilience skills to sergeants and for teaching sergeants how to teach these skills to their soldiers. It is one of the foundational pillars of the CSF2 program and the “train the trainer model” is the main vehicle for the dissemination of MRT concepts to the entire force.¹⁵⁵

¹⁵¹Reivich, Seligman, and McBride, 29.

¹⁵²About.com, “Panic Disorder.”

¹⁵³Reivich, Seligman, and McBride, 28.

¹⁵⁴Department of the Army, ADP 7-0, G1.

¹⁵⁵Reivich, Seligman, and McBride, 25.

Operational training domain is the training activities organizations undertake while at home station, at maneuver combat training centers, during joint exercises, at mobilization centers, and while operationally deployed.¹⁵⁶

Performance Enhancement Program (PEP) is to educate and train [United States Military Academy] cadets in performance enhancement techniques that foster their full development as leaders of character. Performance enhancement training is built upon an understanding of how thoughts and emotions interact with anatomy and physiology to dramatically affect human performance. To take advantage of this connection between the mental and the physical the Performance Enhancement Program provides training in the five interrelated mental skills: building confidence, goal setting, attention control, energy management, and integrating imagery.¹⁵⁷

Positive Psychology is the science of understanding and promoting behavioral, cognitive, and emotional health.¹⁵⁸ It focuses on how human beings can prosper and lead healthy, happy lives.¹⁵⁹

Positive Visualization (PV) (psychology) is a technique involving focusing on positive mental images in order to achieve a particular goal.¹⁶⁰ Athletics best illustrates the power of PV. For example, an individual rehearses in his or her mind the most challenging and typically encountered aspect of his or her sport and then holds a clear mental image of performing at peak levels.¹⁶¹

Post Traumatic Stress Disorder (PTSD) Post-traumatic stress disorder is a psychiatric illness that can occur after experiencing or witnessing a traumatic event, including natural disasters, rape, violent crime, or war. Symptoms include hyper-vigilance, reliving the trauma, anxiety, and avoidance. Learn more about the causes, symptoms, and treatments for PTSD.¹⁶²

¹⁵⁶Department of the Army, ADP 7-0, G1.

¹⁵⁷United States Military Academy, “Performance Enhancement Program Mission.”

¹⁵⁸Cornum, Matthews, and Seligman, 5.

¹⁵⁹Cherry, “A Brief Overview of the Field of Positive Psychology.”

¹⁶⁰[www.thefreedictionary.com, “Positive Visualization,”](http://www.thefreedictionary.com/positivevisualization)
www.thefreedictionary.com/positivevisualization (accessed 19 November 2013).

¹⁶¹Vitello-Cicciu, “Innovative Leadership Through Emotional Intelligence,” 31.

¹⁶²About.com, “Post-traumatic Stress Disorder (PTSD),” <http://psychology.about.com/od/ptsd/> (accessed May 5, 2014).

Ready and Resilient Campaign (R2C) integrates and synchronizes multiple efforts and programs to improve the readiness and resilience of the Army Family - Soldiers (Active Duty, Reserve, and National Guard), Army Civilians and Families. R2C creates a holistic, collaborative and coherent enterprise to increase individual and unit readiness and resilience. Ready and Resilient will build upon physical, emotional and psychological resilience in Soldiers, Families and Civilians so they improve performance to deal with the rigors and challenges of a demanding profession.¹⁶³

Resilience When faced with stress and/or adversity, resilience is a key factor in the mental, emotional, and behavioral ability to cope with and recover from the experience, achieve positive outcomes, adapt to change, stay healthy and grow from the experience. Resilience is closely linked to Performance. Performance is one measure used to assess an individual's level of resilience. A resilient individual is better able to leverage mental and emotional skills and behavior that promotes optimal human performance.¹⁶⁴

Self-development training domain is the planned, goal-oriented learning that reinforces and expands the depth and breadth of an individual's knowledge base, self-awareness, and situational awareness; complements institutional and operational learning; enhances professional competence; and meets personal objectives.¹⁶⁵

Sports Psychology is the study of how psychology influences sports, athletic performance, exercise and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.¹⁶⁶

Thinking Traps are patterns of thinking that can either heighten leadership, performance, and mental health or undermine them. This is another skill learned during institutional resilience training, such as BCT. Examples of thinking traps are jumping to conclusions or over generalizing, which is the tendency to judge a person's worth, motivation, or ability on the basis of a single action.¹⁶⁷

¹⁶³U.S. Army Ready and Resilient, "What's Different?," <http://www.army.mil/readyandresilient/> (accessed May 5, 2014).

¹⁶⁴Comprehensive Soldier and Family Fitness, "CSF2 FAQs."

¹⁶⁵Department of the Army, ADP 7-0, G1.

¹⁶⁶About.com, "SportsPsychology."

¹⁶⁷Reivich, Seligman, and McBride, 28.

APPENDIX A

ARMY WELLNESS CENTER INTERVIEW QUESTIONS

1. What is your appointed work title?
2. Can you describe your job description?
3. What are your thoughts of biofeedback/guided imagery?
4. Do you know what the Comprehensive Soldier Family and Fitness (CSF2) or Ready and Resilient program (R2P) is?
5. Is the AWC linked to the Comprehensive Soldier Family and Fitness program?
6. Approximately how many Army soldiers receive the services provided by AWC?
7. Which age group attends AWC services?
 - 18-24
 - 25-32
 - 33-40
 - Over 40
8. What kind of statistical data/surveys/feedback on biofeedback or guided imagery does AWC collect?
9. Approximately, which age group shows the most improvement from participating in AWC?
 - 18-24
 - 25-32
 - 33-40
 - Over 40
10. Are there specific programs for each age group?
11. What can biofeedback/guided imagery offer soldiers (ie. Personal life, work, combat, etc)?
12. Is there anything you can add that would be helpful for this interview?

APPENDIX B

AWC CONSENT AND USER AGREEMENT FOR ORAL INTERVIEW MATERIALS

You have the right to choose whether or not you will participate in this oral history interview, and once you begin you may cease participating at any time without penalty. The anticipated risk to you in participating is negligible and no direct personal benefit has been offered for your participation. If you have questions about this research study, please contact the student at: _____ or Dr. Robert F. Baumann, Director of Graduate Degree Programs, at (913) 684-2742.

To: Director, Graduate Degree Programs
Room 4508, Lewis & Clark Center
U.S. Army Command and General Staff College

1. I, _____, participated in an oral interview conducted by _____, a graduate student in the Master of Military Art and Science Degree Program, on the following date [s]: _____ concerning the following topic: _____.

2. I understand that the recording [s] and any transcript resulting from this interview will belong to the U.S. Government to be used in any manner deemed in the best interests of the Command and General Staff College or the U.S. Army, in accordance with guidelines posted by the Director, Graduate Degree Programs. I also understand that subject to security classification restrictions I will be provided with a copy of the recording for my professional records. In addition, prior to the publication of any complete edited transcript of this interview, I will be afforded an opportunity to verify its accuracy.

3. I hereby expressly and voluntarily relinquish all rights and interests in the recording [s] with the following caveat: _____ None _____ Other: _____

I understand that my participation in this oral interview is voluntary and I may stop participating at any time without explanation or penalty. I understand that the tapes and transcripts resulting from this oral interview may be subject to the Freedom of Information Act, and therefore, may be releasable to the public contrary to my wishes. I further understand that, within the limits of the law, the U.S. Army will attempt to honor the restrictions I have requested to be placed on these materials.

Name of Interviewee Signature Date

Accepted on Behalf of the Army by Date

APPENDIX C

BASIC COMBAT TRAINING ORAL HISTORY INTERVIEW

1. When were you a company commander at BCT in Ft. Jackson, SC?
2. Can you describe what was your job or job duties?
3. Can you describe the resilience-training curriculum at BCT?
4. What is the terminology used in BCT for CSF2 psychological resilience/mental fitness training (e.g. psychological resilience, mental fitness)?
5. How many total hours of resilience-training do recruits receive during BCT?
6. Were recruits aware that the resilience-training should be continued/sustained at their next unit and leader development school?
7. How long has mental fitness training been used in BCT?
8. Did you witness recruits use the resilience-training during BCT?
9. Is there any statistical data/surveys/feedback on mental fitness training during BCT?
10. In your opinion, did the resilience-training benefit the recruits in BCT? If so, in what way(s)?
11. Can you describe any differences in recruits before or after the resilience-training was instituted at BCT?
12. Based on your experience, was it your opinion that recruits were affected by resilience-training?
13. Is there anything else you would like to add that could benefit this interview?

APPENDIX D

BCT CONSENT AND USER AGREEMENT FOR ORAL HISTORY INTERVIEW

You have the right to choose whether or not you will participate in this oral history interview, and once you begin you may cease participating at any time without penalty. The anticipated risk to you in participating is negligible and no direct personal benefit has been offered for your participation. If you have questions about this research study, please contact the student Major Roger Wang at _____ or Dr. Robert F. Baumann, Director of Graduate Degree Programs, at (913) 684-2742.

To: Director, Graduate Degree Programs
Room 4508, Lewis & Clark Center
U.S. Army Command and General Staff College

1. I, _____, participated in an oral history interview conducted by Major Roger Wang, a graduate student in the Master of Military Art and Science Degree Program, on the following date [s]: _____ concerning the following topic: Positive Visualization training at Basic Combat Training (BCT).

2. I understand that the recording [s] and any transcript resulting from this oral history will belong to the U.S. Government to be used in any manner deemed in the best interests of the Command and General Staff College or the U.S. Army, in accordance with guidelines posted by the Director, Graduate Degree Programs and the Center for Military History. I also understand that subject to security classification restrictions I will be provided with a copy of the recording for my professional records. In addition, prior to the publication of any complete edited transcript of this oral history, I will be afforded an opportunity to verify its accuracy.

3. I hereby expressly and voluntarily relinquish all rights and interests in the recording[s] with the following caveat: _____ None _____ Other: _____

I understand that my participation in this oral history interview is voluntary and I may stop participating at any time without explanation or penalty. I understand that the tapes and transcripts resulting from this oral history may be subject to the Freedom of Information Act, and therefore, may be releasable to the public contrary to my wishes. I further understand that, within the limits of the law, the U.S. Army will attempt to honor the restrictions I have requested to be placed on these materials.

Name of Interviewee Signature Date

Accepted on Behalf of the Army by Date

BIBLIOGRAPHY

Books, Pamphlets, and Reports

- Aitchison, D. Craig. "Building Resilient Warriors: Taking the Canadian Army's Resilience Training Beyond the Classroom." Monograph, School of Advanced Military Studies, 2012.
- Culbert, Timothy P., M.D., Martin, Howard, and McCraty, Rollin, Ph.D., A *Practitioner's Guide*. Boulder Creek, CA: HeartMath LLC, 2010.
- Department of the Army. Army Doctrine Publication (ADP) 3-0, *Unified Land Operations*. Washington, DC: Government Printing Office. October 2012.
- . Army Doctrine Publication (ADP) 6-0, *Mission Command*. Washington, DC: Government Printing Office, May 2012.
- . Army Doctrine Publication (ADP) 6-22, *Army Leadership*. Washington, DC: Government Printing Office, August 2012.
- . Army Doctrine Publication (ADP) 7-0, *Training Units and Developing Leaders*. Washington, DC: Government Printing Office, August 2012.
- Department of the Army, Training Doctrine Command (TRADOC). Army Regulation 350-36, *Basic Officer Leader Training Policies and Administration*. Fort Eustis, VA: Headquarters, United States Army TRADOC, January 2014.
- Department of the Navy. "Building Mental Toughness," Poster on Operational Stress Control. October 2013.
- Harms, P.D. et al, "Report #4: Evaluation of Resilience Training and Mental and Behavioral Health Outcomes." In *The Comprehensive Soldier and Family Fitness Program Evaluation*. Monterey, CA: Office of the Deputy Under Secretary of the Army, April 2013.
- Herrigel, Eugen. *Zen in the Art of Archery*. Translated by. R. F. C. Hull. New York City, New York: Pantheon Books, 1953.
- Horocho, Patricia. "Senior Leader Spotlight." *Comprehensive Soldier and Family Fitness Quarterly* 5, October 2013.

Journal Articles

- Casey, George W. "A Vision for Psychological Resilience in the U.S. Army." *American Psychologist* 66, no. 1 (January 2011): 1-3.

- Cornum, Rhonda, Michael D. Matthews, and Martin E. P. Seligman. "Comprehensive Soldier Fitness: Building Resilience in a Challenging Institutional Context." *American Psychologist* 66, no. 1 (January 2011): 4-8.
- Newmark, Thomas. "Cases in Visualization for Improved Athletic Performance." *Psychiatric Annals* 42, no. 10 (October 2012): 385-387.
- Reivich, Karen J., Martin E. P. Seligman, and Sharon McBride. "Master Resilience Training in the U.S. Army." *American Psychologist* 66, no. 1 (January 2011): 25-33.
- Swets, John A., and Robert Bjork. "Enhancing Human Performance: An Evaluation of 'New Age' Techniques Considered by the U.S. Army." *Psychological Science* (1990): 85-96.
- Vitello-Cicciu, Joan M. "Innovative Leadership Through Emotional Intelligence." *Nursing Management* 34 (October 2003): 28-32.

Newspaper Articles

- Burkeman, Oliver. "The Power of Negative Thinking." *The New York Times*, August 5, 2012).
- Jarvis, William. "People of Praise: Visualization Serves as Crucial Tool for Success." *The Journal Gazette* [Fort Wayne, Indiana], October 1, 2005.
- Lehman, Hilary. "Army Welcomes Older Recruits Looking for Stability." *Tampa Bay Times*, June 13, 2010.
- Limn, Iliana. "A Beautiful Mind; Coach Flanagan uses Positive Thoughts, Visualization to Become the Winningest Coach in Lobos Basketball History." *Albuquerque Journal*, December 9, 2006.
- Rendon, Jim. "Post-Traumatic Stress's Surprisingly Positive Flip Side." *The New York Times*, March 22, 2012.
- Scarlett, Stefanie. "Fear Factor, 'Living Large' is way to push fright out of life." *The Journal Gazette* [Fort Wayne, Indiana], June 13, 2005.
- Tan, Michelle. "Army Expands Resiliency Training, Targets Leaders." *Army Times*, September 7, 2013.
- Zoroya, Gregg. "Army Expanding Mental Health Program Despite Research." *USA Today*, October 7, 2013.

Magazines

Barrett, Connell, and Josh Sens. "How to Think Like a Champion." *Golf Magazine* 55, no. 1 (January 2013): 48-54.

DiSalvo, David. "Visualize Success if You Want to Fail." *Forbes Magazine* (June 8, 2011): 1-3.

Eidelson, Roy. "The Army's Flawed Resilience-Training Study: A Call for Retraction." *Psychology Today* (June 2012): 1-5.

Websites

About.com. "Panic Disorder." <http://panicdisorder.about.com/od/livingwithpd/a/Guided-Imagery-For-Panic-Disorder> (accessed May 5, 2014).

———. "Post-traumatic Stress Disorder (PTSD)." <http://psychology.about.com/od/ptsd/> (accessed May 5, 2014).

———. "SportsPsychology." <http://psychology.about.com/b/2010/07/16/sports-psychology-psychology-definition-of-the-week.htm> (accessed May 5, 2014).

Army Wellness Center Fort Leavenworth. "Available Programs." <https://www.munson.amedd.army.mil/departments/wellness.html> (accessed May 5, 2014).

Bromberg, Howard. "Toward a ready and resilient Army-leaders' responsibilities in R2C." www.dcmilitary.com (accessed May 5, 2014).

Carpenter, Ryan. "Researchers study Marines Mind Fitness." www.11thmeu.marines.mil/News/NewsArticleDisplay/tabid/2683/Article/2079/researchers-study-marines-mind-fitness.aspx (accessed May 30, 2014).

Chappell, Bill. "U.S. Military's Suicide Rate Surpassed Combat Deaths in 2012." www.npr.org, <http://www.npr.org/blogs/thetwo-way/2013/01/14/169364733/u-s-militarys-suicide-rate-surpassed-combat-deaths-in-2012> (accessed May 15, 2014).

Cherry, Kendra. "A Brief Overview of the Field of Positive Psychology." About.com Psychology. <http://www.psychology.about.com/od/branchesofpsycholog1/a/positve-psychology.htm?p=1> (accessed November 19, 2013).

———. "What is Biofeedback?" About.com Psychology. <http://psychology.about.com/od/bindex/f/biofeedback.htm> (accessed May 5, 2014).

Comprehensive Soldier Family and Fitness. "About CSF2." <http://csf2.army.mil/about.html> (accessed May 5, 2014).

- . “CSF2 FAQs.” <http://csf2.army.mil/faqs.html> (accessed May 5, 2014).
- . “Overview.” <http://csf2.army.mil/about.html#mission> (accessed May 6, 2014).
- Department of the Army. “Basic Combat Training.” <http://www.goarmy.com/soldier-life/becoming-a-soldier/basic-combat-training.html> (accessed May 5, 2014).
- . “General Qualifications.” <http://www.goarmy.com/careers-and-jobs/enlisted-soldier.html> (accessed May 5, 2014).
- . “Home.” U.S. Army Ready and Resilient. <http://www.army.mil/readandresilient> (accessed May 5, 2014).
- . “Institutional Resilience Training Basic Combat Training (BCT).” U.S. Army Medical Department. <https://www.rto.wrair.army.mil/lifecycle.cfm> (accessed May 5, 2014).
- . “What’s Different?” U.S. Army Ready and Resilient. <http://www.army.mil/readandresilient/> (accessed May 5, 2014).
- Department of the Navy. “Overview.” Navy SEAL official webpage. <http://www.sealswcc.com/navy-seals-overview.html> (accessed May 5, 2014).
- Mayo Clinic Health Letter Site. “Enhancing Your Healing.” <http://HealthLetter.MayoClinic.com> (accessed October 8, 2013).
- Mind Fitness Training Institute. “About Us.” <http://mind-fitness-training.org/about.html> (accessed May 30, 2014).
- . “About Us: Founder.” http://mind-fitness-training.org/ab_founder.html (accessed May 30, 2014).
- . “Positive Visualization.” www.thefreedictionary.com/positivevisualization (accessed November 19, 2013).
- . “Research: Current Research Findings.” http://mind-fitness-training.org/re_projects.html (accessed May 30, 2014).
- . “Research: MMFT Pilot Study Findings.” http://mind-fitness-training.org/re_pilot.html (accessed May 30, 2014).
- . “Training: What is Mind Fitness and why do I need it?” http://mind-fitness-training.org/tr_what_perf.html (accessed May 30, 2014).
- Tony Robbins Official Website. “Home.” <http://www.tonyrobbins.com/> (accessed May 5, 2014).
- . “Why It Works.” <http://www.tonyrobbins.com/> (accessed May 5, 2014).

Sanborn, James K. "Mind Fitness Routines Fight Combat Stress," *Marine Corps Times*.
<http://www.marinecorpstimes.com/article/20111003/NEWS/110030329/Mind-fitness-routines-fight-combat-stress> (accessed May 5, 2014).

Shanker, Thom, and Helene Cooper. "Pentagon Plans to Shrink Army to Pre-World War II Level." www.nytimes.com, http://www.nytimes.com/2014/02/24/us/politics/pentagon-plans-to-shrink-army-to-pre-world-war-ii-level.html?_r=0 (accessed May 5, 2014).

United States Military Academy. "Performance Enhancement Program Mission."
<http://www.westpoint.edu/cep/SitePages/PEP.aspx> (accessed May 5, 2014).

Interviews

Conard, Tracy. Interview by author. Fort Leavenworth, Kansas. December 17, 2013.

Darrow, Rachel. Interview by author. Fort Leavenworth, Kansas. December 17, 2013.

Navarro, Nathan. Telephone Interview by author. February 27, 2014.

Purdie, Jermaine. Telephone Interview by author. March 11, 2014.