STRATEGY EDUCATION FOR WINNING IN A COMPLEX WORLD:

AN EVALUATION STUDY OF THE ARMY UNIVERSITY

by

Arthur N. Tulak

A Dissertation Presented to the
FACULTY OF THE USC ROSSIER SCHOOL OF EDUCATION
UNIVERSITY OF SOUTHERN CALIFORNIA
In Partial Fulfillment of the
Requirements for the Degree
DOCTOR OF EDUCATION

August 5, 2019

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The 21st Century Security environment facing the United States is characterized by adversaries who employ complex combinations of military and non-military means to achieve traditional military objectives short of conflict, while simultaneously preparing the theater for war. The Army Operating Concept (AOC) 'win in a complex world,' provides the Army's conceptual approach to counter the threat. The Army University (AU) is the education component to achieving the AOC. The AU Strategic Plan states that the Army education system does not adequately address the complex 21st Century security environment. Graduates of Army Field Grade (FG) Officer Professional Military Education (PME) are challenged with developing a theater military strategy that effectively counters adversary concepts, doctrines, strategies and forms of warfare in the geographic combatant command theaters.

The purpose of the study is to identify the knowledge, motivation, and organization performance gaps preventing the U.S. Army War College (USAWC), as the Army lead for strategy education, from developing curriculum that supports the AOC. Such curriculum should educate USAWC students to be capable strategists and theater-strategic planners for duty at 3 and 4-Star Headquarters, where the U.S. military confronts adversaries employing complex and novel forms of warfare in the competition phase. Data was collected through surveys, interviews, document analysis, and classroom observations at the USAWC. Findings revealed that USAWC Faculty have knowledge and motivation gaps that prevent fully supporting the AOC with an effective strategy education curriculum. Findings also revealed organizational gaps in resources, goal setting, and culture that prevent goal attainment.   The study provides recommendations to address validated performance gaps.

CHAPTER ONE: INTRODUCTION

"In a complex world, winning matters"

GEN Mark A. Milley, Army Chief of Staff (CSA)

The problem of practice addressed by this dissertation is how the Army University is improving the strategy education curriculum of the USAWC professional military education (PME) curriculum to support the goal of the U.S. Army Operating Concept (AOC), namely to 'win in a complex world.' The AOC prioritizes the development of leaders who can visualize, describe, direct, lead and assess operations in complex environments against adaptive enemies (Training and Doctrine Command [TRADOC], 2014). Graduates of Army Field Grade (FG) Officer Professional Military Education (PME) serving at 3 and 4-Star Army and Joint headquarters are challenged with understanding and responding to the new forms of warfare of the 21st Century Security Environment. FG PME must better prepare USAWC graduates to plan effective Theater Military Strategies to counter adversary hybrid warfare activities and operations that threaten America's alliances and national security.

General David Perkins, Commanding General of U.S. Army Training and Doctrine Command explains "the current Army education system does not address the complex 21st Century security environment" that the AOC describes, and adds that, "preparing leaders for tomorrow demands change today" (Perkins, 2015, p. 3). General Perkins further explains that the Army University was created, in part, to specifically support the AOC (2015, p. 3) and that the Army Learning Strategy was developed to prepare leaders for the complex security environment described in the AOC (p. 1). A major aim of such efforts is to produce Field Grade officers competent in developing theater military strategies which specifically address the challenges posed by the changing character and forms of warfare in the 21st century that now

characterize the complex world. The Army Operating Concept "describes how future Army forces will prevent conflict, shape security environments, and win wars while operating as part of our Joint Force and working with multiple inter-organizational and multinational partners" (HQDA, 2015b).   The AOC is "grounded in a vision of future armed conflict that considers national defense strategy, missions, emerging operational environments, advances in technology, and anticipated enemy, threat, and adversary capabilities" (Yuengert, 2017, p. 3-12).

Army operational concept documents provide the latest thinking and fundamental ideas about future concepts of military operations and their associated required capabilities (Yuengert, 2017). In an Army University White Paper titled "Educating Leaders To Win in a Complex World" General Robert B. Brown, then Commanding General of the U.S. Army Combined Arms Center and Fort Leavenworth, stated the core problem thusly: "The present Army education system, while among the best in the world, is inadequate to address the growing complexity of the 21st Century security environment" (Brown, 2015, p. 4). The Army University strategic plan specifically states "the Army University must transform curriculum and the curriculum development process," in part to, "support creation of unique projects, designs, and other works for students use in real-world situations to solve complex real-world problems," such as those confronting our Army and Joint Force 3 and 4-Star HQs supporting the geographic combatant commands across the globe (Perkins, 2015, p. 17).

Background of the Problem

The 21st century security environment, characterized by current and emergent adversary concepts, doctrines, strategies, and forms of warfare, presents complexities that require new approaches to the strategy education component of PME. These changes are necessary to educate Army leaders to "win in a complex world," and to fulfill the vision of the Army

University's learning strategy, which aims to have an education and training system that will develop "an Army of professionals who meet readiness challenges today and tomorrow by learning faster, adapting more quickly than adversaries, and who have the leadership…and problem-solving skills to thrive in complex and chaotic environments" (Kern, 2017, p. 7). The AOC links warfighting challenges to required capabilities, the latter of which include schools and colleges that will effectively educate and train "agile, adaptive, and innovative leaders who thrive in conditions of uncertainty and chaos, and are capable of visualizing, describing, directing, leading, and assessing operations in complex environments and against adaptive enemies" (U.S. Army TRADOC, 2014, p. 32).

The problem of improving field grade PME is specifically addressed in the National Defense Strategy of the United States (NDS), published by Secretary of Defense James Mattis in January 2018, who explained that U.S. "PME has stagnated, focused more on the accomplishment of mandatory credit at the expense of lethality and ingenuity" (Mattis, 2018, p. 8). The NDS calls for an emphasis on developing in senior leaders the "intellectual leadership and military professionalism in the art and science of warfighting" and to employ theater strategies "embracing new technology and techniques to counter competitors" (Mattis, 2018, p. 8). DoD efforts to improve PME are intended to develop leaders who are competent in decision-making on defense and military strategy, and who have a solid understanding of the interagency decision-making processes (Mattis, 2018). In a RAND study sponsored by the Army Special Operations Command, researchers Robinson, Miller, Gordon, Decker, Schwille, and Cohen (2014), identified two key findings relevant to this study, namely that the U.S. Military suffers from deficits in both the understanding of strategy, and the process for formulating strategy. The RAND report concluded that the rise of irregular threats, posed an acute dilemma for U.S.

strategy, which increased the imperative to improve strategic competence in the U.S. Military (Robinson et al., 2014). The U.S. Army War College acknowledged that this report essentially found that the formal strategy making process as "taught in professional military education does not reflect current realities" of the complex world (Valledor, 2015). In a USAWC Strategy Research Project, Colonel Lewis described the results of these deficiencies in leader development, writing that "newly arrived officers," reporting to the Joint Staff, Combatant Commander's Staffs, and four star command level Army Staff, "do not possess the strategic leader competencies required to function at this level" (Lewis, 2006, p. i).

The changing character of war and the complexity of the security environment place a premium on educating FG Officers to develop effective theater military strategy. Writing in 2016, Chairman of the Joint Chiefs of Staff (CJCS) General Dunford explained that, "While the nature of war is enduring, the character of war today is extraordinarily dynamic," and added that to, "prepare our future leaders for success, we must continuously assess and refine our leader development" (Dunford, 2018, p. 1). Acknowledging how the new challenges in the character of warfare impact PME, General Robert B. Brown wrote in the foreword to the Army University white paper, "Educating Leaders to Win in a Complex World" that, "preparing leaders for this complexity demands an improved approach to education" (Brown, 2015, p. i). General Perkins reinforced this by quoting the AOC in the AU strategic plan, specifically that the Army must adapt, "quickly to the changes in the character of warfare with revised institutional training and education for leaders across the Army" (Perkins, 2015, p. 5). These remarks were echoed by the director of the USAWC Strategic Leader Development Division, COL John Valledor, who reported that these new security conditions create an urgent need to educate field grade leaders

who are competent in strategy and strategic thinking needed to plan and conduct operations to win in a complex world (Valledor, 2015).

Putting a finer point to the problem, USAWC Faculty Gabriel Marcella and Stephen Fought noted that the U.S. war colleges "need to do a much better job at the core mission of teaching strategy. There is a growing concern that they teach about strategy, rather than teaching about how to develop strategy" (Marcella & Fought, 2010, p. 82). Emphasizing the need for a change in the way that our field grade officers are educated, the CSA's 2015 Strategic Studies Group reported that "the traditional ways of developing future leaders to operate at the strategic enterprise level should be reevaluated" (U.S. Army Combined Arms Center [USACAC], 2015, p. 8). The problem affects DoD's performance in its core mission-essential tasks of maintaining alliances, deterring conflicts, contesting adversary provocations during the peacetime competition phase, effectively responding to crises, and properly preparing to defeat likely adversaries in the case of war. This problem reflects the larger national problem facing strategy education in PME across all four military services to meet field grade officer competency goals for mastery of strategy articulated by the U.S. DoD Officer Professional Military Education Policy (OPMEP; CJCS, 2012).

Importance of Addressing the Problem

The global security environment is increasingly complex and shaped by current and emergent adversary concepts, doctrines, and forms of warfare employed during peacetime competition that threaten regional and international security, and even the security of the United States in the homeland (Mattis, 2018). The National Security Strategy of the United States (NSS) identifies three main sets of challengers: 1) a resurgent Russia and a rising People's Republic of China; 2) a belligerent and nuclear-armed North Korea, and an adventurous and

dangerous Iran, and; 3) transnational threat organizations, jihadist terrorist groups in particular (NSS, 2017).   A common characteristic of these nations listed is their adoption of hybrid warfare in their military strategies and actions (Hoffman, 2009a, 2009b; Milley, 2015; Chambers, 2016; Freier, et al., 2016; Tulak, 2016, 2019; Gady, 2017).   With a shrinking U.S. military facing off against the potential adversaries listed above, the importance of developing effective deterrence and warfighting strategies that acknowledge adversary concepts, doctrines, strategies, and forms of warfare has never been greater (Association of the United States Army [AUSA], 2018a). The need for effective strategies to deal with the new security environment, characterized in U.S. Army doctrine as a 'complex world,' is one of the core reasons for the creation of Army University. The establishment of Army University is a critical capability for the Army to achieve its Operating Concept, which supports the objectives of the current national defense strategy. The 2015 Army Operating Concept remains in effect, and is not expected to be replaced earlier than 2020 (Kimmons, 2018).

The rise of hybrid threats and challenges from revisionist states to the international order could result in open conflict in a number of simmering hotspots across the globe. These separate flash points could be ignited in rapid sequence as our military becomes fixed in place fighting in the initial theater of crisis, and our adversaries take advantage of the opportunity presented by having our military stretched too-thinly across the globe. In his testimony before the House Armed Services Committee (HASC) in January 2018, former DoD official Jim Thomas argued that we should expect China and Russia will coordinate their warfighting efforts with one another (AUSA, 2018a). Reinforcing this danger, the Director of National Intelligence Dan Coats stated more recently that, "Russia and China have a closer relationship today than they've had in many decades" (Maze, 2019, p. 41). The two countries conduct bilateral military

exercises since 2006, and the scope of these exchanges continue to grow, as demonstrated by

PRC's participation for the first time in Russia's strategic level VOSTOK exercise in 2018

(Shanahan, 2019). Such military cooperation in crisis could result in the United States facing

coordinated simultaneous conflicts against our current major adversaries, which would quickly

resemble, or perhaps turn into, a World War as the U.S. military would be actively fighting in

multiple regional theaters.

<p style="text-align:center">Organizational Context and Mission</p>

The organization selected for this evaluation study is the USAWC at Carlisle Barracks

Pennsylvania. The USAWC is a professional college for Senior Field Grade Officers that

provides its graduates with Military Education Level 1 (MEL 1) certification. The USAWC is

also a master's degree granting institution, and its master's of military strategy program is

accredited by the Middle States Association of Colleges and Schools, headquartered in

Philadelphia, Pennsylvania. The USAWC is also certified by the CJCS for compliance with the

joint professional military education (JPME) requirements in the OPMEP. The USAWC is one

of the two colleges providing strategy education to FG Officers in the Army University System

(the Command and General Staff College at Fort Leavenworth KS also provides its students

education in strategy).

The Army University was authorized by General Order 2016-10, signed by Secretary of

the Army, Eric K. Fanning, on September 22, 2016, establishing Army University as a

subordinate element of the United States Army TRADOC as part of a re-organization of the

Army School System (Headquarters, Department of the Army [HQDA], 2016b). Following this

reorganization, the Secretary of the Army (SECARMY), Chief of Staff of the Army (CSA), and

Sergeant-Major of the Army (SMA) signed a joint proclamation "Educating Army Professionals

to Win in a Complex World" announcing the establishment of the Army University on July 7,

2015. The proclamation stated the goal for the Army University to, "become a premier learning

institution for the Total Army developing both military and civilian professionals who can

understand and operate successfully within a complex future security environment" (HQDA,

2016a). The establishment of the Army University followed the examples of the Air Force,

which established Air University in 1946, and the Marine Corps, which activated the Marine

Corps University in 1989 (Brown, 2015). In establishing AU, the Army integrated 70 separate

U.S. Army Training and Doctrine Command internal school programs under one university

system (U.S. Army Combined Center Public Affairs [USACAC PA], 2015).

The Army University is composed of 4 colleges, 3 academies, 23 schools, 11 centers, and 3

institutes located on Army installations across the U.S. in 11 States (Army University, n.d.).

Army University's Branch schools provide education and training for the professional branches

of the Army (career fields). The U.S. Army Academy (USAMA) at West Point provides newly

commissioned second lieutenants, while the Sergeants Major Academy educates very senior

professional non-commissioned officers, to fill positions at the highest enlisted rank. The third

academy, the Installation Management Academy, trains leaders in management of the Army's

installations, barracks, and forts across the globe. The 4 colleges of Army University are

USAWC, Command and General Staff College (CGSC), Army Management Staff College (and

Army Management Staff College-West), and the U.S. Army Warrant Officer Career College.

The USAWC is the flagship college of Army University and is tasked to serve as "the focal point

and enterprise coordinator for strategic education" (Brown, 2015). In 2017, Army University

conferred 940 bachelor's degrees from USAMA, and approximately 524 master's degrees from

USAWC (385) and CGSC (139) (USAWC, 2017a; CGSC Foundation, 2017).

This evaluation study is focused on the strategy education component of field grade officer education (i.e., officers at the ranks of Major, Lieutenant Colonel, and Colonel). Strategy education is introduced at CGSC in the C200 Course, Strategic Context of Operational Art (CGSC, 2016) and is further advanced at the USAWC. The military departments (Army, Navy, and Air Force) develop strategies to ensure each service can accomplish its core tasks globally, while the geographic combatant commands (CCMDs) are tasked to develop theater strategies and supporting theater campaign plans, both to defeat aggression, and to maintain peace through effective deterrence of potential adversaries, and assurance of allies. With the enactment of the Goldwater-Nichols Department of Defense Reorganization Act of October 4, 1986 (Public Law 99-433), Congress created the Geographic CCMDs that cover the globe and divide responsibility for any military operations and activities that fall within assigned areas of responsibility (AOR), which provide the theater of focus for the strategy. Public Law 99-433 also requires the services to maintain a rigorous Joint PME to produce field grade officers who would fill positions in the CCMDs where theater-level strategies are developed and executed (N. Murray, 2016).

Robert Dorff, a professor in the USAWC's department of political science and international affairs, explains that the majority of graduates of the USAWC are sent to serve on Army and Joint staffs and will finish their Army careers in these high-level staff assignments, with only a few going on to take command of Regiments or Brigades (Smith, Kaufman, Dorff, & Brady, 2001). In his 2017 USAWC Strategy Research Project, "Building Better Colonels: A Strategic Approach to Strategic Leader Development," LTC Cloutier determined that approximately 28% of the Colonel duty positions listed for fill in November 2016 were in the category of "Strategic Plans and Policy," which "…include working on a combatant command (COCOM) staff and developing Theater Campaign Plans (TCP)" and where "…strategic

thinking and planning are essential for success in this category" (p. 5). CGSC, by comparison, will see its graduates distributed throughout the Army and joint force with only a small fraction going directly to serve in 3-star and higher service or joint commands where the military services write strategies for global employment, and CCMDs write theater-specific strategies and campaign plans for peacetime competition and deterrence, contingencies, and potential conflicts. During the reform efforts following the Goldwater-Nichols Act, Williamson Murray (1986), then a professor at the Naval War College, argued that for reforms to endure, penetrate the officer corps, and have immediate impact across the joint force, they must begin at the war colleges. This is true today, and the task of improving Army strategy education to respond to the new security challenges of the 21st century, must therefore start with the USAWC, which owns and defines what constitutes strategy education for the Army.

Mission and Tasks Assigned to the Army War College

The USAWC's organizational mission and goals are shaped by many authoritative sources and experience, to include the Chairman of the Joint Chief of Staff (CJCS) OPMEP, Army strategic planning guidance, Army regulations and orders, Congressional oversight findings and legislation, along with the lessons learned from recent warfighting experiences in overseas contingency operations. The mission of the USAWC is "to educate and develop leaders for service at the strategic level while advancing knowledge in the global application of Landpower" (HQDA, 2014b, p. 77). The USAWC supports the Army's mission of "providing land forces capable of Unified Land Operations, able to operate effectively with Joint, interagency, intergovernmental and multinational partners across the range of military operations to provide capable and ready forces to combatant commanders (CCDRs) in support of the National Security

and National Defense Strategies while maintaining the quality of the All-volunteer Force"

(HQDA, 2014b, p. 1). The Army's strategic goal is:

> to provide the Joint Force Commander with forces prepared to seize, retain, and exploit
>
> the initiative to gain and maintain a position of relative advantage in sustained land
>
> operations through simultaneous offensive, defensive, and stability or defense support of
>
> civil authorities operation in order to prevent or deter conflict, prevail in war, and create
>
> the conditions for favorable conflict resolution. (HQDA, 2014b, p. 1)

The USAWC supports the Army's strategic goal to support the Joint Force by educating the field

grade officers to be competent in developing theater military strategy and implementing that

strategy in a campaign (campaigning). These field grade officers will serve on staffs of joint

force commanders, such as the CCMDs, and 3 and 4-Star Army Service Component Commands

(ASCC) reporting to the CCDR. In support of the ASSCs and CCMDs, the U.S. Army

TRADOC Regulation 350-10 tasks the USAWC to conduct "resident, nonresident, and other

educational programs to develop the competence of military, civilian, and international leaders to

… develop theater strategies, estimates, and campaign plans to employ unified, joint, and

multinational forces" (TRADOC, 2002, n.p.).

The CJCS guidance impacting the USAWC mission and goals is found in the 2012

OPMEP, which acknowledged the impact of the complex challenges of the 21st century security

environment on PME. The 2012 OPMEP explained that these challenges are found "…within

territories and environments in which we are not at war in a conventional sense and where

traditional forms of military power may not provide the sole solution," conditions often

described as the 'Gray Zone' (CJCS, 2012, p. A-1). OPMEP directs that the focus for senior-

level strategy education is to "prepare students for positions of strategic leadership and

advisement; senior education focuses on national security strategy, theater strategy and

campaigning, civil-military relations, joint planning processes and systems, and joint

interagency, intergovernmental, and multinational capabilities and integration" (CJSC, 2015, pp.

A–A-4 to A-A-5). The focus above is on preparing students to link national strategy to tactical

actions within a theater to achieve strategic objectives. At the intermediate level of JPME, the

OPMEP states that officers should "comprehend the security environment within which Joint

Forces are created, employed and sustain in support of JFCs [Joint Force Commanders] and

component commanders" (CJCS, 2015a, p. E-C-2).

The 2015 OPMEP stresses that leaders must "keep pace with the changing strategic

environment," be able to "apply key strategic concepts, critical thinking and analytical

frameworks to the formulation and execution of strategy in both war and peace" (CJCS, 2015a,

p. E-D-1). Knowing the security environment means knowing the potential wartime enemy and

current peacetime adversary and his strategic concepts, doctrines, and forms of maneuver. At the

28th Annual USAWC Strategy Conference in May 2017, Dr. Rob Johnson addressed the

changing character of war, reviewing the various adversary concepts, doctrines, and strategies

employed, and alignment of U.S. military strategy to deal with the new threats. Using Russia's

employment of unrestricted warfare as an example, Dr. Johnson concluded that employment of

such hybrid threats by our potential adversaries could be "countered by strategic action," which

of course requires the development of a strategy to guide it (Johnson, R., 2019). The OPMEP

also stresses that leaders must be able to apply strategies, "across the range of military operations

to support national objectives" (CJCS, 2015a, p. E-D-1). The Range of Military Operations

(ROMO) is a scale of military operations that starts with the main activities and operations in

peacetime competition below the level of armed conflict (engagement with Allies and partners

for assurance; security cooperation; building partner military capacity; strengthening alliances, and; deterring potential adversaries) through crisis response and contingency operations all the way to major theater war with, "large-scale combat operations in the form of major operations and campaigns aimed at defeating an enemy's armed forces and military capabilities in pursuit of national objectives" (HQDA, 2017, p. 1-1).

The elements of the OPMEP described above provide a useful construct to understand what 'winning in a complex world' means from the joint perspective, which can be understood as including the successful formulation and execution of strategies across the ROMO from peacetime competition, to War and, return to competition in support of national security, defense, and military objectives. The OPMEP provides learning objectives that focus squarely on this in Learning Area 2 (LA2) "Joint Warfare, Theater Strategy and Campaigning for Traditional and Irregular Warfare in a Joint Interagency, Interdepartmental and Multinational Environment." (CJCS, 2015a, p. E-E-2). Among the JPME learning objectives in LA2 is the requirement for students to "evaluate how theater strategies, campaigns, and major operations achieve strategic goals across the range of military operations," and for students to, "evaluate key classical, contemporary and emerging concepts, including…doctrine and traditional/irregular approaches" (CJCS, 2015a, p. E-E-2). Together, these two learning objectives provide a joint perspective of the knowledge and skills required to "win in a complex world."

The USAWC's mission is further shaped by the Army's strategic planning guidance (ASPG), Army regulations and orders, and Congressional oversight findings and legislation. The ASPG is the Army's institutional strategy that provides the Army vision of, "how the Army will fulfill its mission to provide necessary forces and capabilities to the Combatant Commanders in support of the National Security and Defense Strategies" (HQDA, 2006, p. 1).

This is important, as it addresses the very commands to which many USAWC graduates are sent. The need for Leader Education in response to the new complex security environment figures prominently in the ASPG documents over the last decade. The 2006-2023 ASPG set the goal for its Leader Development and Education programs to develop Army leaders, "capable of successfully operating as part of a Joint, Interagency, Multi-national (JIM) team in full spectrum operations within the contemporary operating environment" (HQDA, 2006, p. 26.). The 2011 ASPG more specifically explains that education is a mitigating strategy for responding to the increasing complexity of the of the new operating environment (HQDA, 2011, p. 16). The 2014 ASPG's first of five priorities is developing "adaptive Army leaders for a complex world" and explains that, "the foundation of the Army rests in Army leaders who can adapt to the challenges posed by a complex future environment" (HQDA, 2014a, p. 1).

In addition to the ASPG, the Army's Officer Education System (OES) detailed in Army Regulation 600-3, provides regulatory guidance to all Colleges and Schools of the Army University. AR 600-3 acknowledges the new complex security environment and states that the strategic objective of OES is "to provide an education and training system operationally relevant to the current [security] environment, but structured to support the future [security] environment" (HQDA, 2014c, p. 22). GEN Dempsey listed 6 desired leader ability-based attributes for Officers, the first of which is the "ability to understand the security environment" (Dempsey, 2012, p. 4). Crucial to achieving a full understanding the security environment is the detailed study of known adversaries active in a given theater.

The stated goal of the Army's OES is to develop leaders who are, "creative problem solvers, able to function in highly complex and dynamic environments" (HQDA, 2014c, p. 22). The skill needed to achieve this is critical thinking. Former CJCS General Martin Dempsey

identified critical thinking as the essential requirement to achieving desired outcomes for Joint

PME (Dempsey, 2012, p. 4). Critical thinking for field grade officers is necessary for

competence and decisiveness in understanding the security environment and in developing

appropriate and effective strategies. Furthermore, it is a skill set that strategy education is

intended to provide. The Army OES is tasked to develop leaders who are, "able to apply

problem solving and decision-making skills to defeat an enemy who presents asymmetric

threats…who is adaptive and unpredictable, who has the capability to shift between irregular and

conventional warfare, and who is a near peer enemy capable of conventional offense and defense

operations…" (HQDA, 2014c, p. 5). The Army OES is also required to produce leaders who can

competently operate in, "an environment of complexity, ambiguity, and rapid change" (HQDA,

2014c, p. 7).

The Army vision statement from 2015 also shapes the USAWC mission, as it outlined the

direction for the Army as it instituted major changes in the structure of the Army School System,

stood up the Army University, and re-examined PME:

> Our Army stands at an inflection point. Emerging from 14 years of war, facing significant
>
> budgetary pressures, and confronted with an increasingly complex security environment,
>
> we must determine what kind of Army the Nation will need for the future. Our exclusive
>
> use of previous paradigms is insufficient for the task ahead… Instead, we must change
>
> and evolve (HQDA, 2015a, p. 7).

Specifically addressing education, the Army vision statement states that, "[i]ncreasing agility

will also require further investments in military professional development and formal education,

both within the Army and through partnerships with civilian academic institutions and private

industry" (HQDA, 2015a, p. 7).

Within the general mission assigned to the Army War College are tasks highlighted in the Army University White Paper regarding strategy education. The AU White Paper explains that the Commandant of the Army War College, as the AU Vice Chancellor, is, "to advise the Chancellor and the Chief of Staff of the Army on matters concerning strategic education. The Vice Chancellor is responsible the integration of strategic education throughout Army University" (Brown, 2015, p. 13). Table 1 below provides the USAWC's assigned organization mission and tasks relevant to strategy education.

Table 1

Stakeholder Assigned Missions and Tasks

Organization Mission/Tasks	Source
Mission: "Educate and develop leaders for service at the strategic level while advancing knowledge in the global application of Landpower."	HQDA, AR 350-1, 2014, p. 77.
Task: Develop Army leaders who "can adapt to the challenges posed by a complex future environment" and who are "capable of operating in the contemporary operating environment"	HQDA ASPG, 2006, pp. 1, 26.
Task: Conduct "resident, nonresident, and other educational programs to develop the competence of military, civilian, and international leaders to … develop theater strategies, estimates, and campaign plans to employ unified, joint, and multinational forces"	HQ, TRADOC, Regulation 350-10, 2002, n.p.
Task: "[P]repare students for positions of strategic leadership and advisement; senior education focuses on national security strategy, theater strategy and campaigning, joint planning processes and systems, and joint interagency, intergovernmental, and multinational capabilities and integration"	CJSC, OPMEP, 2015a, pp. A-A-4 to A-A-5.
Task: "[P]repare future military and civilian leaders for high-level policy, command and staff responsibilities requiring joint and Service operational expertise and warfighting skills by educating them on the instruments of national power (diplomatic, informational, military, and economic), the strategic security environment and the effect those instruments have on strategy formulation, implementation, and campaigning."	CJSC, OPMEP, 2015a, p. E-E-1.

Table 1, continued

Organization Mission/Tasks	Source
Task: "Provide an education and training system operationally relevant to the current [operating] environment, but structured to support the future [operating] environment"	HQDA, AR 600-3, 2014, p. 22.
Task: Develop leaders who are "able to apply problem solving and decision-making skills to defeat an enemy who presents asymmetric threats…who is adaptive and unpredictable, who has the capability to shift between irregular and conventional warfare, and who is a near peer enemy capable of conventional offense and defense operations"	HQDA, AR 600-3, 2014, p. 5.
Task: Develop leaders who are "creative problem solvers, able to function in highly complex and dynamic environments" and able to operate in "an environment of complexity, ambiguity, and rapid change"	HQDA, AR 600-3, 2014, pp. 22 & 7 respectively.
Task: USAWC will "serve as the focal point and enterprise coordinator for strategic education"	GEN Brown, Commanding General, Combined Arms Command (Brown, 2015).
Task: All schools and colleges of Army University were tasked to improve their approach to education in order to prepare leaders to win in a complex world.	GEN Brown, Commanding General, U.S. Army Combined Arms Center (USACAC, 2015).
Task: Increase agility in Army leaders to respond to the complex operating environment via professional military development and education	HQDA, 2015a, Army vision statement.
Task: Develop military professionals "who can understand and operate successfully within a complex future security environment"	HQDA, 2016A, Proclamation: "Educating Army Professionals to Win in a Complex World" (n.p.).
Task: Prepare "military, civilian, and international leaders to assume strategic leadership responsibilities in military or national security organizations."	HQDA, 2017, DA PAM 600-3, Army Professional Development and Career Management, p. 8.

Description of Stakeholder Groups

The main stakeholders contributing to mission accomplishment of the USAWC's field

grade strategy education are the USAWC faculty, USAWC students, and the military HQs

commanded by 3 and 4-star generals and admirals, in which USAWC graduates are employed.

The last of these stakeholders are mainly the 3-star Army Service Component Commands

(ASCC) and Theater Armies, and the 4-star service HQs (Chiefs of the Army, Navy, Marines

and Air Force), the Joint Staff in the Pentagon, and the geographic CCMDs responsible for

developing theater strategies and planning and conducting all military operations in their

assigned geographic areas of responsibility (AOR) of the globe. The six CCMDs are

(alphabetically) Africa Command, Central Command, European Command, Indo-Pacific

Command, Northern Command, and Southern Command.

Stakeholder Group for the Study

While the cumulative efforts of all stakeholders would enhance the performance of field

grade officers assigned to joint and major commands, the stakeholder group selected for this

study is the USAWC faculty, as they are tasked to maintain (and revise when necessary) a

strategy education curriculum they are familiar with, to better prepare their graduates to develop

theater strategies that will respond to the complex security environment, and the concepts,

doctrines, strategies, and forms of warfare employed by America's adversaries. Expertise on the

nature of the threat is gained at the CCMDs who face off against hybrid threats as they are

manifested in their AOR. However, the task of including this regional knowledge into the

curriculum will also fall to the faculty. Students come to the USAWC with some knowledge of

the new complex security threats, based on their operational deployments, regional experience,

and training with allies. They bring fresh knowledge and experience with them to the campus

each year, and the USAWC faculty leverage this experience in the classroom.

The USAWC faculty is composed of both civilian and active-duty military personnel.

Newly assigned military faculty often bring recent operational experiences at the senior level 3

and 4-Star Headquarters to the classroom, while the civilian faculty is noted for its contributions

to published research in the form of articles, books, and papers (Mittelstadt, 2018). The teaching

faculty of the USAWC is divided between the distance and resident education programs (DEP

and REP, respectively). As of June 28, 2018, the resident program faculty stood at 91 members,

of which 47 were active-duty military, and 44 civilians (Mittelstadt, 2018). Sixty-one percent of

the civilian faculty at the USAWC had earned a doctoral degree, while 10% of the active-duty

military faculty members held doctorates (Mittelstadt, 2018).

Stakeholder Performance Goals

Integrating the higher-level task, goals, and requirements from the ASPG, OES and Army

vision statement, the proposed organizational goal for the selected stakeholder follows: By

academic year 2020/2021, the USAWC faculty will align learning objectives (LOs) in the

strategy education curriculum to support the Army Operating Concept goal of 'winning in a

complex world' and prepare USAWC graduates for service at 3 and 4-star HQs in the

development and execution of effective theater military strategies. A re-designed curriculum is

the first step towards preparing USAWC graduates to adeptly apply problem solving and critical

thinking skills in the development of more effective strategies for countering/deterring enemy

concepts, doctrines, strategies and forms of warfare in the modern complex security

environment. In his proposal for improving PME curriculum to develop competent operational

planners and strategists, Hibner (2016), emphasized that planners working at the CCMDs must

have a deep appreciation of the operations environment, and that field grade PME should

develop an understanding the forms of warfare at the staff college, and then undertake in-depth

evaluation at the USAWC in order to achieve mastery level skill in operations and strategy.

The outcomes sought in student performance are consistent with the primary learning

objectives of the USAWC's School of Strategic Landpower curriculum, which include:

- LO 1: Evaluate theories of war and strategy in the context of national security decision-making

- Analyze, adapt, and develop military processes, organizations, and capabilities to achieve national defense objectives.

- LO 3: Apply strategic and operational art to develop strategies and plans that employ the military instrument of power in pursuit of national aims.

- LO 5: Think critical and creatively in addressing security issues at the strategic level. (USAWC, 2016a, p. 81)

The goal proposed is also consistent with goals established for the Army University, USAWC's higher organization outlined earlier to, "become a premier learning institution for the Total Army developing both military and civilian professionals who can understand and operate successfully within a complex future security environment" (HQDA, 2016a, n.p.).   General Perkins explained that the Army will measure the success of AU support to the AOC, "by the degree to which we increase the rate of innovation in Army learning, adapt to the novel challenges in the operating environment, and prepare our Soldiers to win in a complex world" (Perkins, 2015, p. 1).

Purpose of the Study and Questions

The purpose of this study is to conduct a gap analysis to examine how the USAWC responded to a new mission from Army and Joint Staff leaders to improve strategy education. The evaluation study addresses the question from the USAWC 2016-2017 Key Strategic Issues List (KSIL) "Strategic Leadership" section, under the category of "Army Priorities for Strategic Analysis" which asked potential researchers to, "examine how the Army can better prepare senior Army leaders to effectively contribute to national strategy (NSS, NDS, NMS)

development. How can we adjust officer development to prepare leaders to apply the new Army

Operating Concept, specifically, to 'win in a complex world'?" (Troxell, 2016, p. 10). The

Army's Operating Concept, Win in a Complex World "prioritizes the development of leaders

capable of visualizing, describing, directing, leading, and assessing operations in complex

environments against adaptive enemies" (USACAC, n.d.). This research question follows from

the Army War College's 2010 assessment of strategy education which sought to answer the

question, "Can we teach not just *understanding* of strategy, but the ability to *do it?* In other

words, can we actually better prepare students to formulate and implement strategy, and if so,

how?" (Dorff, 2010, p. 2).

The USAWC KSIL is published annually to help the research community supporting the

U.S. Army to understand the priority research issues. Research issues in the KSIL are the high

priority research topics and questions the Army is requesting research assistance to answer, as

the USAWC is not able to research all strategic issues of importance to the U.S. Army (Key,

2018, p. 2). The USAWC assigns research questions to faculty, USAWC fellows, and USAWC

students, and also employs contracted researchers to conduct research on the KSIL research

questions. Outside researchers may also undertake studies to find answers to the KSIL research

questions, as this study does. In addition to the 2016 KSIL issue mentioned above, this study

will contribute to answering the USAWC commandant's 2018 research priorities published in

the 2018 Army Research Plan (Key, 2018, p. 12):

- Theme #1: "How can the U.S. Army be more effective in complex operational
  environments?"

- KSI 1.2 "Evaluate whether the changing strategic environment and character of war
  require a corresponding change in the way Army leaders think about war."

The following questions guided the evaluation study, and address knowledge and skills, motivation, and organization influences for the USAWC to answer the question from the 2016-2017 KSIL:

1. To what extent has the Army War College modified the strategy education component of the USAWC curriculum in response to novel adversary forms of warfare characterizing the 21st century security environment?

2. How does the current improved curriculum better support the requirements of the geographic combatant commands who are confronted with the new complex security threats?

3. What are the known outlines and requirements for future modifications of the curriculum to better prepare USAWC graduates to develop theater military strategies in 3 and 4-Star HQs?

4. What is the feedback mechanism for USAWC graduates in 3 and 4-Star HQs to continuously improve the strategy education curriculum to improve USAWC graduates' competency in developing theater military strategies?

5. What are the faculty knowledge, motivation and organizational influences that are preventing full accomplishment of Strategy Education Goals to prepare students to develop strategy for the challenges of the complex security threats of the 21st Century?

Conceptual and Methodological Framework

This study will employ the evaluation study model. Pedersen (1977, pp. 1-2) explains that evaluation studies are used to develop comprehensive programs and to evaluate concepts. The USAWC is being tasked to improve its current program of education for strategy education to better respond to the new security environment. Part of the rationale for selecting the

STRATEGY EDUCATION FOR WINNING IN A COMPLEX WORLD

evaluation model is that the improvement goal is acknowledged by the organization responsible for achieving it, but the problem of practice in execution is more difficult to quantify. The USAWC has acknowledged the goal by publishing it as a research question for the Strategic Issues List so that it can better achieve it. The analysis in this study focused on the causes that are related to knowledge and skills, motivation, and organizational gaps centered around the key stakeholder, USAWC faculty. Specifically, the knowledge, motivation, and organizational influences that affect the collective ability of USAWC faculty to equip its graduates with the skills to effectively address the novel adversary forms of warfare will be examined in the following chapters. The need for the study is reflected in the fact that strategy education was the number three priority for Army Priorities for Strategic Analysis for Strategic Leadership in the USAWC KSIL for academic year 2016-2017 (Troxell, 2016).

To address the potential causes of and solutions for improving strategy education to prepare Army field grade officers for the forms of warfare, the Clark and Estes' (2008) gap analysis framework will be utilized. Gap analysis is an analytical method that compares an organization's performance against its stated goals and identifies the causes for the gap in performance. Rueda (2011) provides the three dimensions into which the study will organize identified gaps, namely knowledge, motivation, and organization (KMO). As the stakeholder group is the faculty, I will be looking for the KMO dimensions of instructor knowledge and skill, instructor motivation, and organizational and contextual factors. The evaluation approach is that of an Objectives-Based Study, which Stufflebeam (2001) identifies as one of 21 widely accepted approach constructs. The purpose of an objectives-based evaluation approach is to determine whether an organization's objectives have been achieved (Stufflebeam, 2001).

Definitions

Adversary: Is defined in the DoD Dictionary of Military and Associated Terms as, "A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged" (OCJCS, 2019, p. 9, drawn from Joint Pub 3-0).

Campaign: "A series of related operations aimed at achieving strategic and operational objectives within a given time and space" (OCJCS, 2019, p. 31, drawn from Joint Pub 5-0).

Campaign Plan: A plan for a series of related military operations aimed at accomplishing strategic or operational objectives within a given time and space. (OCJCS, 2019, p. 31, drawn from Joint Pub 5-0). The Theater Campaign Plan (TCP) is a type of campaign plan.

Competition Phase: Military operations conducted in the peacetime competition, characterized by adversaries creatively combining conventional and non-conventional methods to achieve their objectives, while operating below a threshold that would invoke, "a direct military response from the United States while retaining the capability to escalate to more conventional armed conflict if desired" (Vice Chairman of the Joint Chiefs of Staff [VCJCS], p. v).

Field grade officer: Is a classification of officers ranking above a captain and below a brigadier general (HQDA, 1986, p. 141). In the seven Uniformed Services of the United States (Army, Navy, Marines, Air Force, Coast Guard, Public Health Service, and National Atmospheric Administration [NOAA] Corps), field grade officers are those in the pay grades O-4 to O-6. For the Army, Navy, and Air Force, these are majors, lieutenant colonels, and colonels. For the Navy Coast Guard, PHS, and NOAA, these are lieutenant commanders, commanders, and captains. These are typically officers in their 11th to 20th year of service.

Gray zone: The gray zone is, first and foremost, "an operating environment" in which aggressors use ambiguity in actions and forces employed seeking to achieve non-attribution in order to accomplish strategic political and territorial objectives while limiting the counter-actions by other nation states (Chambers, 2016, p. 4). As Mazarr (2015) explains, gray zone conditions "are ripe for the use of hybrid warfare" (p. 58). USAWC Associate Professor Nathan Freier makes the stronger claim that, "all gray zone challenges are some hybrid combination of adverse methods" (Freier et al., 2016, p. xiii). Inside the gray zone of competition that is neither war nor peace, aggressors will employ hybrid formations and tactics that exceed the threshold of ordinary peacetime competition and classic diplomacy, yet fall below the level of clear militarized threats to U.S. and allied security interests that require a military response (Elder, 2016; Freier et al., 2016; Tulak, 2016, 2019).

Hybrid Threat: An adversary employing "diverse and dynamic combination of regular forces, irregular forces, terrorist forces, or criminal elements unified to achieve mutually benefitting threat effects" (TRADOC, 2018b)

Hybrid warfare: A blending of conventional, unconventional means and methods (to include the use of terrorism, criminals, partisans, and mercenaries) in actions carried out by military, paramilitary and non-military forces to achieve traditional military objectives to include territorial control or conquest (Milley, 2015; Chambers, 2016; Mazarr, 2015; Tulak, 2016; Oskarsson, 2017). Chambers (2016) identifies the two types of hybrid threats: "open-warfare hybrid threats" and "gray-zone hybrid threats." (p. 4). This study is concerned with gray-zone hybrid threats, which are conducted in a manner that seeks to avoid triggering a larger military conflict. Hybrid warfare conducted in the gray zone seeks to create uncertainty by increasing ambiguity of national aims and official involvement, which complicates adversary decision-

making on how to respond and slow the coordination of effective responses (McCulloh &

Johnson, 2013; CJCS, 2015). Revisionist powers and rogue regimes conducting hybrid warfare

employ "corruption, predatory economic practices, propaganda, political subversion, proxies,

and the threat or use of military force to change facts on the ground" by seizing territory and

using those territorial gains to project military power (Mattis, 2018, p. 5).

Operational Level of Warfare: "The level of warfare at which campaigns and major

operations are planned, conducted, and sustained to achieve strategic objectives within theaters

or other operational areas" (OCJCS, 2019, p. 165, drawn from Joint Pub 3-0).

Professional military education: The official definition of this term from the CJCS:

"PME conveys the broad body of knowledge and develops the habits of mind essential to the

military professional's expertise in the art and science of war" (CJCS, 2012, p. GL-8). It is

recognized as one phase of an officer's career-long education alongside pre-commissioning

training, specialty and functional training, training development, leader development, distance

learning, and civilian education (either sponsored or independent) (HQDA, 2014b).

Strategic Level of War: "The level of warfare at which a nation, often as a member of a

group of nations, determines national (alliance or coalition) strategic security objectives and

guidance, then develops and uses national resources to achieve those objectives" (OCJCS, 2019,

p. 208, drawn from Joint Pub 3-0).

Strategy: "A prudent idea or set of ideas for employing the instruments of national

power in a synchronized and integrated fashion to achieve theater, national, and/or multinational

objectives" (OCJCS, 2019, p. 208, drawn from Joint Pub 3-0).

Strategic art: Writing in 1995, General Chilcoat observed a lack of competence in the

development of strategy and strategic thinking, and opined that while the U.S. military had

"come a long way towards mastery of the tactical and operational arts—the time is now to strive for mastery of the strategic art." Chilcoat (1995) proposed the following definition of strategic art, which is still taught at the USAWC: "The skillful formulation, coordination, and application of ends (objectives), ways (courses of action), and means (supporting resources) to promote and defend the national interests" (p. 3)

Strategy education: The body of work to teach strategy with the aim of developing the skills of a strategist. The term Strategy Education was introduced at the Strategic Studies Institute of the Army War College, and used in publications to describe the comprehensive effort to teach strategy (Marcella, et al.,2010, Valledor, 2015). As set by regulations and recent guidance, Strategy education is the purview of the Service and Joint War Colleges. Strategy education represents the pinnacle of education for field grade officers. The components of strategy education are

- Strategy. The alignment of ends, ways, and means—informed by risk—to attain goals.
- National strategy. The alignment of ends, ways, and means to attain national policy objectives.
- Military strategy. The art and science of aligning military ends, ways, and means to support national policy objectives (Valledor, 2015, pp. 5-6).

Strategic Leader: The Strategic Leader Division of the U.S. Army Personnel Command defines 'strategic leaders' as Colonels and General Officers (Moore, 2009, p 9). The USAWC differentiates two strata of strategic leaders: those who serve the enterprise in executive-level capacities (General Officers), and "senior leaders composed of military and civilian leaders from the grades of O-6/GS-15 and above who run the enterprise on a daily basis" (T. Galvin & Watson, 2019, p. IX).

Strategist: Broadly, General John Galvin's definition applies to AWC Graduates: "A military strategist is an individual uniquely qualified by aptitude, experience, and education in the formulation and articulation of military strategy" (1989, p. 3). More narrowly, the Army certifies select Officers as Strategists through the Functional Area 59 (FA 59). The FA 59 strategist is typically assigned to, "Army organizations, combatant commands, the Joint Staff, and the interagency community the capability for strategic analysis in support of the development and implementation of plans and policies at the national strategic and theater strategic levels" (HQDA, 2017b). As demand for these officers exceeds supply, Army strategic leaders often carry out the same tasks listed above, and therefore perform as strategists and strategic planners in Army and Joint Force HQs.

Theater: "The geographical area for which a commander of a combatant command has been assigned responsibility" (OCJCS, 2019, p. 219, drawn from Joint Pub 1).

Theater Strategy: "An overarching construct outlining a combatant commander's vision for integrating and synchronizing military activities and operations with the other instruments of national power to achieve national strategic objectives" (OCJCS, 2019, p. 221, drawn from Joint Pub 3-0).

Winning in a Complex World. TRADOC defines 'winning in a complex world' as, "achieving sustainable political outcomes consistent with United States' vital interests" (TRADOC, 2014, p. 3) Recently, the Army clarified winning in the competition (peacetime) phase as expanding the competition space for friendly military operations and denying the adversary his objectives while achieving an operational position of advantage (TRADOC, 2019).

Organization of the Study

This dissertation is organized into five chapters. The first chapter introduces the education problem of practice and the gap analysis framework that guided the study. Chapter One presents the performance gap and the key stakeholder for the evaluation study, and the research questions. Chapter One also introduces key concepts and definitions necessary to describe the current international security environment and its impact on field grade PME. Chapter Two, the literature review, provides a deeper examination of the complexity of the current security environment and presents recent strategy and direction from the commander-in-chief and the secretary of defense that guides all Department of Defense efforts, to include the DoD staff and war colleges. Chapter Two also reviews Army policy, doctrine, and regulations for PME, and revisits past efforts by the Army to improve PME curriculum in response to changes in the extant security environment that can inform current efforts. A key component of Chapter Two is the exploration of performance gaps identified in prior research, which includes a review of the assessments and critiques of field grade PME from the professoriate of the Department of Defense staff and war colleges, Congress, and other stakeholders in field grade PME. Furthermore, Chapter Two explains how the Clark and Estes (2008) Gap Analysis Framework provides the foundation for the study, and concludes with an examination of the knowledge influences, motivation constructs, and organizational influences bearing on the problem of practice. Chapter Three, Methods, provides an outline of the research methods employed, to include data collection and instrumentation, strategies for ensuring credibility and trustworthiness, compliance with ethical standards of research and professional standards for the conduct of evaluation studies, and the limitations, delimitations, and assumptions of the study. Chapter Four presents findings and results of data collection and analysis. Chapter Five links the

research results to the research questions, and discuss the implications of the findings for the

problem of practice, and the stakeholder goals. Chapter Five also provides recommendations for

future evaluation and research and a summary of the evaluation study, presents the key findings,

and their implications for field grade PME at USAWC and across the U.S. DoD, along with

recommended solutions for implementation.

CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter will examine the relevant literature to the problem of practice, of improving strategy education component of PME, to better respond to the challenges of the new complex 21st century security environment. The first section will characterize this new security environment in terms of how it affects the efforts of the U.S. and her allies in developing and implementing effective strategies to maintain the peace and deter conflict. The following sections review historical efforts at Army PME curriculum and instructional reform, along with recent critiques of the DoD PME institutions, with an emphasis on those relating to strategy education that may point to causes for not realizing the stated performance goals. The final section will review the literature of theories of knowledge, motivation, and organization, and identify influences in these areas on the stakeholder organization of the study.

The Complex 21st Century Security Environment

The global security environment is increasingly complex. It is shaped by adversary concepts, doctrines, strategies and forms of warfare employed during peacetime competition that threaten regional and international security and the security of the United States (Mattis & Hoffman, 2005; Dempsey, 2012; U.S. Army Combined Arms Center (USACAC), 2015; White House Office of the Press Secretary, 2017; Hoffman, 2009a, 2009b, 2018; Mattis, 2018; Dunford, 2018; VCJCS, 2018). Globally, the United States faces peer, and near peer, adversaries who seek to fracture and separate her alliances and to defeat her allies and security partners below the threshold of armed conflict, while employing hybrid warfare methods that challenge traditional deterrence by conducting operations in a manner that deliberately blur the distinctions between peace and war (Milley, 2015; Menser, 2016;TRADOC, 2017b; Lai, Troxell, & Gellert, 2018; VCJCS, 2018, Tulak, 2016, 2019). The complexity of this new security environment

demands that the strategy education component of DoD's field grade PME must keep apace, so that America's armed forces can effectively maintain peace and deter conflict. As described in Chapter One, the Department of Defense is operating in a strategic condition known as competition, which is defined as "the condition when two or more actors in the international system have incompatible interests but neither seeks to escalate to open conflict in pursuit of those interests" (TRADOC, 2017b, p. 73). In competition, the United States faces adversaries who generally seek to avoid the use of violence (but are nevertheless comfortable doing so), and will employ a range of instruments including conventional military forces, paramilitary forces, and proxies, often in ways that complicate attribution to the state sponsor (Vice Chairman of the Joint Chiefs of Staff [VCJS], 2018, p. 74).

Over the last five years, offensive hybrid warfare under gray zone conditions by Russia, against Ukraine and China against South China Sea claimant nations, respectively, have brought about a return to 'Cold War like' conditions that Lind et al. (2018a, 2018b) have labelled, "Cold War II," and which the U.S. DoD classifies as competition. In the face of these threats, the 2017 U.S. national security strategy and 2018 U.S. national defense strategy have retuned the national focus to inter-state competition and conflicts. The concept of competition displaces the old doctrinal thinking of having clean breaks between distinct conditions of peace and war, replacing it with a competition continuum with overlapping conditions, namely: cooperation, competition below armed conflict, and armed conflict (VCJCS, 2018). A key feature of this model is that countries can be operating at multiple points along the continuum simultaneously. Accordingly, in competition, one could see the U.S. employing armed force to challenge another country in pursuit of U.S. policy objectives, while cooperating with that country in other areas (VCJS, 2018, p. 8). Deterring, contesting, and defeating these hybrid threats is the challenge facing 3

and 4-Star Headquarters, where USAWC graduates will contribute to the development of effective theater military strategies, articulated in plans, and carried out in operations and activities by military forces.

Unpredictable Threats

General Martin E. Dempsey, appointed by President Obama as the 18th CJCS, remarked in the foreword to the 2015 national military strategy, that the current global security environment was:

> the most unpredictable I have seen in 40 years of service… global disorder has significantly increased while some of our comparative military advantage has begun to erode. We now face multiple, simultaneous security challenges from traditional state actors and transregional networks of sub-state groups – all taking advantage of rapid technological change. Future conflicts will come more rapidly, last longer, and take place on a much more technically challenging battlefield. They will have increasing implications to the U.S. homeland. (CJCS, 2015b, i).

Dempsey (2012) also stressed the critical importance of effective strategy education to address these challenges, by pointing out that the strategies that were credited for winning the Second World War (WWII) were developed in the service war colleges, and once again, the PME would need to produce highly competent strategists to effective strategies for the new complex security environment. While serving as the CJCS, GEN Dempsey (2012) assessed that the United States was once again at a strategic inflection point in the current security environment thus, requiring field grade officers with strategic planning skills to respond to the novel adversary forms of warfare that are impacting all military operational domains.

The U.S. Army leadership has also acknowledged it is at an inflection point, as it is confronted with an increasingly complex security environment. In this new security environment, the previous models based on the combat power of maneuvering fleets and forward-deployed armored and mechanized formations of the Cold War, or on the counter insurgency over the last 17 years are both deemed inadequate (HQDA, 2015a). The current and future threats and novel forms of warfare of concern to General Dempsey are best exemplified by ongoing Chinese and Russian hybrid warfare operations carried out under gray zone conditions, and the employment/deployment of forces to carry out theater anti-access and area denial (A2/AD) strategies. These are strategies designed to achieve traditional military activities short of armed conflict, and in the case of crisis, to prevent the U.S. from effectively deploying forces deployment to the theater of operations, and to conduct operations on arrival. Moreover, the aggressive force deployments and employments, as well as asymmetric strategies employed by our top 2 adversaries, threaten our treaty allies, destabilize regional security, and are of great concern to Army leadership. Dempsey (2012) cautioned that the changing security environment would challenge the DoD "to deliver high quality education as never before" and to "keep pace with the changing strategic environment" (p. 3).

Increasing Likelihood of Conflicts

The increased threat of conflict posed by states challenging the existing international order could result in near simultaneous open conflicts in a number of simmering hotspots across the globe. These separate flash points could be ignited in rapid sequence as the U.S. military becomes fixed in the fighting in the initial theater of crisis, and its adversaries take advantage of the opportunity presented by the U.S. having its military stretched too-thinly across the globe (AUSA, 2018a) Since the end of the Cold War, America's military capabilities have diminished

in scale and resilience, with a corresponding drop in the level of ambition of the scale of war the

Nation can manage being reflected in DoD force-sizing concepts and the resulting national

military strategy.   The Cold War force-sizing strategy to fight a world war on a global scale was

replaced in 1996 by a 'two-war' standard in the "Two Major Regional Contingencies" (MRC)

strategy established at the end of the administration of President George H. Bush, and reflected

in the 1996 National Security Strategy during the presidency of William J. Clinton (Troxel,

1993). The 2001 Quadrennial Defense Review (QDR) retained the yardstick of fighting two

MRCs, but not of equal status, explaining that one of the MRCs, "could be a protracted stability

operation" and that while both of the MRCs would, "require a surge of forces" only, "one of the

campaigns would be to remove a hostile regime and destroy its military capacity" (Goure, 2013,

p. 15).   The 2 MRC force-sizing strategy essentially survived as the template until the 2010

QDR, which down-scaled the level of effort expected of the U.S. military, that instead of

achieving victory in both MRCs, it would seek victory in one region, while, "denying the

objectives of—or imposing unacceptable costs on—an opportunistic aggressor in a second

region" (Goure, 2013, p. 28). The 2010 QDR was seen as break from the 2 MRC force-sizing

strategy, and described as having been abandoned by the Obama Administration in 2010

(Spillius, 2010, Goure, 2013). As the stated capabilities of the U.S. Military to successfully win

two nearly simultaneous MRCs continued to eroded, America's adversaries sought to achieve

decisive military capability to achieve victory against the U.S. in an MRC that might erupt in

their region. The PRC in particular has endeavored to take full advantage of what the Chinese

Communist Party has identified as a "window of strategic opportunity" in which, "China can

increase its comprehensive national strength, international competitiveness, and influence with

few serious threats and many opportunities" (Rinehart, 2016, p. 9).

The unclassified version of the 2015 national military strategy (NMS) of the Obama Administration was the first NMS to acknowledge hybrid warfare. Moreover, this version confirmed the transition to a "one and a half war" concept of fighting and winning one MRC, while denying an enemy victory in another (CJCS, 2015b, p. 6). The 2015 NMS assessed the probability of U.S. involvement in war with a major power as "low but growing" in stark contrast to the current assessments in the 2017 NSS and 2018 NDS that such conflict is now of great concern (p. 4).

This steady reduction of ambition for the level of conflict our military can manage coincides with the post-Cold War drawdown of military capability readiness that was accelerated by the enforcement of the Budget Control Act of 2011, and exacerbated by more than 18 years of warfighting (AUSA, 2018a; Dominguez, 2017; Livingston, 2017; Rudowski, 2018). America's significantly reduced military is a major concern in the 2017 National Security Strategy (NSS) and is a significant component of the challenge facing Army strategists and strategic planners, who have fewer resources to work with while facing off against adversaries whose military capabilities have steadily grown during America's military downsizing. The unclassified summary of the 2017 NSS lists the potential adversaries of the United States in the following order: China and Russia, followed by North Korea and Iran, all of whom have seen tremendous growth in key military capabilities designed to counter U.S. strategies, operations, theater access, warfighting concepts, and weapons systems (White House Office of the Press Secretary, 2017, p. 2).

Hybrid Threats

A major characteristic of the 21st century security environment is hybrid warfare; this is a form of warfare that by design is intended to sidestep and defeat traditional deterrence strategies.

The AOC description of the operating environment highlights that, "Diverse enemies will

employ traditional, unconventional, and hybrid strategies to threaten U.S. security and vital

interests" (TRADOC, 2014, p. 10). Hybrid warfare is currently employed with great effect by

the People's Republic of China and the Russian Federation. America's adversaries are

employing military, paramilitary and non-military forces and means in hybrid combinations

organized in strategies that are put into operation on a daily basis in peacetime (Oskarsson,

2016). Russia and China have both achieved strategic-level military objectives, through the

employment of hybrid combinations of conventional military, para-military, and unconventional

use of non-military organizations, supported by effective information operations while staying

short of provoking open conflict (Hoffman, 2009a; Milley, 2015; Tulak, 2016, 2019; Oskarsson,

2017, Dunford, 2018). Russian and Chinese hybrid warfare operations have successfully made

either gradual or rapid territorial revisions that have changed "the facts on the ground" in the

Ukraine (Crimea and Eastern Ukraine) and with artificial islands in the South China Sea. Russia

and China, respectively, have also changed the theater 'battlefield geometry,' which is the

relative disposition of forces and combat capabilities, for any future conflict by expanding the

effective defensive zone through seizure of foreign territory, and extending the reach of combat

systems deployed to these new outposts to deny an opponent the ability to project military power

(Hoffman, 2009a; D'Agostino, 2010; Tulak, 2016, 2019; Arnold, R., 2018; Mattis, 2018;

Farwell, 2019).

As employed by China and Russia, hybrid warfare is characterized by the employment of

conventional forces conducting traditional military operations, as well as para-military and non-

military forces and supporting operations (to include information operations), to seize territory of

their neighbors without provoking U.S. or Ally military response (Hoffman, 2009a; D'Agostino,

2010; Tulak, 2016, 2019; Oskarrson, 2017; R. Arnold, 2018; Mattis, 2018; Dunford, 2018). In addition to achieving *fait accompli* strategic military objectives, hybrid warfare is also used to wear down opponents and create new 'normal levels' of adversary provocations, and to improve conditions for more aggressive moves (Janes Defence, 2018). In this regard, Chinese and Russian hybrid warfare employs hybrid warfare against U.S. and Allied Forces with the aims to desensitize alert posture and weaken alert protocols, demoralize allied military and civilian populations, and cause fatigue/stress in combat systems, units, and personnel (Garreis, 2017; Janes Defence, 2017; Mattis, 2018).

Hybrid Warfare is not just a theoretical concept, and its real-world employment by China, North Korea, Russia, and Iran results in the continued deterioration of regional security in the Pacific, Europe, and the Middle East theaters. As hybrid warfare in practice includes the use of conventional military forces, miscalculations have the potential to escalate rapidly, resulting in open military conflict that may be difficult to reverse (Tulak, 2016, 2019; White House Office of the Press Secretary, 2017). The 21st century security environment facing Army field grade officers serving in 3 and 4-Star HQs, and tasked to develop theater military strategies is exceedingly complex and unpredictable. The steady drawdown of forces and reduced scale of our NMS has encouraged the near-peer nations of China and Russia to build conventional military forces for warfighting, while simultaneously escalating tensions with the employment of hybrid warfare to accomplish traditional military objectives short of armed conflict. Strategic losses to China and Russia in the "gray zone" operating environment (e.g. PRC militarization of South China Sea islands and maritime features, and Russia's seizure of Crimea and proxy war in Ukraine) have changed the battlefield geometry, putting American military forces at greater risk if war should break out in the Pacific or European theaters. The increased likelihood of conflict

and war places a strategic imperative on the development and implementation of effective theater

military strategies that dissuade and deter potential adversaries during the competition phase

(Freier et al., 2016, Troeder, 2019). As this section has demonstrated, the 21st century security

environment is characterized by unpredictable threats, and increasing likelihood of conflicts, and

aggressive use of hybrid methods and forces in the competition phase that have the potential to

erupt into full-scale war. These are the challenges facing USAWC graduate as they report to 3

and 4-Star HQs where they will contribute to the development of effective theater military

strategies, reflected in published plans, to deter both low-level hybrid warfare and full-scale war.

The Challenge of Developing Theater-Level Strategies

Theater (regional) level strategies are designed to deter a specific adversary or set of

adversaries in an established theater from using military force and starting a costly conflict, and

to win decisively if conflict should occur. Theater-level strategies are also developed for major

theater war, such as the prosecution of the Global War on Terror in Iraq and Afghanistan.

National-level security, defense, and military strategies, and implementing guidance and mission

orders all require the development of theater strategies to be the bridge between strategic

objectives and operational level tasks to maintain peace and security and prevent war. Strategy

education at the USAWC is intended, in part, to prepare graduates to develop these strategies.

The focus of this dissertation is on evaluating how the USAWC prepares senior officer graduates

to perform as strategists and strategic planners to work at the theater-strategic level in the

preparation of theater strategies that are effective in the competition phase against adversaries

employing Gray Zone strategies and hybrid warfare methods.

The continuing success of Chinese and Russian hybrid warfare operations has

demonstrated the deficiencies of our theater military strategies to deter aggression and adjust to

hybrid threats. These threats have unfolded in front of the public eye since May 7, 2009, with

China's submission to the United Nation of its claims to territorial sovereignty of international

waters and contested islets and submerged maritime features in the South China Sea (the

infamous '9-dashed line' claim), and subsequent hybrid warfare actions to act on those claims.

In the European Theater, the inadequacy of the U.S. theater military strategy was clearly

manifested on February 20, 2014, when Russia launched its impressive 24-day operation to seize

Crimea from Ukraine and then declared it as sovereign Russian territory on March 18, 2014. In

both cases, efforts to deter aggression failed. As noted by NATO analysts, while the United

States, its allies, and partners all possess the necessary capabilities to deal with hybrid

competition, they have been outmaneuvered as a result of inadequate synchronization of the

elements of national power, which is accomplished in large part via theater military strategies, in

the theaters where it is encountered (Oskarsson, 2017). As the USAWC has observed, U.S.

policymakers and military leaders have repeatedly been unprepared to counter adversaries who

operate with great effectiveness in the 'gray zone' (Freier et al., 2016, p. 6, Troeder, 2019). Key

evidence of the problem is found in a report co-sponsored by the Army Capabilities Integration

Center and the Joint Staff J-39/Strategic Multi-Layer Assessment Branch, which found gaps in

strategic design and deliberate plans, and the lack of an effective strategy to deal with the

complex operating environment facing the geographic combatant commands (Freier et al., 2016).

When assigned to the geographic combatant commands, sub-unified commands, and

service component commands, USAWC graduates will be part of a team tasked to develop (or

improve) a theater strategy that drives peacetime operations and warfighting concepts. Theater

strategies are developed to employ U.S. military forces in a specified theater, which is the

assigned area of responsibility (AOR) of the CCMD, or a sub-set established by the CCDR.

Furthermore, theater strategies are developed to create operational constructs that permit other

National Elements of power to be applied in a concerted manner across the U.S. Government,

and with Allies and multinational coalitions. The elements of national power are Diplomatic,

Informational, Military, Economic, Financial, Intelligence and Law enforcement (commonly

referred to as DIME-FIL) (Goodyear, Greata, Payment, & Wetterauer, 2017; Mattis, 2018). The

requirements for the theater military strategies are laid out in a series of policy and guidance

documents, which are addressed in field grade strategy education. The following sub-sections

highlight the importance of effective field grade strategy education to meet the requirements of

the layered development of NSS, NDS, NMS, and theater strategy, and what those documents

have to say on the importance of officer PME to that effort.

National Security Strategy

Field grade strategy education in U.S. PME must prepare officers to regionally

implement theU.S. NSS, as published by the president. With the recent publication of the NSS

in December 2017, there is a need to ensure that our current strategy education supports new

objectives in the NSS. Through the NSS, and presidential directives, the president provides

strategic guidance to the executive branch, which includes DoD. The 2017 NSS covers a wide

range of security threats and drives the whole of government to develop strategies addressing

threats to border security, critical infrastructure protection, economic competitiveness, and

defense industrial preparedness, to name just a few (White House Office of the Press Secretary,

2017). The NSS identifies and prioritizes the potential adversaries the military must plan to deter,

disrupt, and defeat, which are primarily, the People's Republic of China and the Russian

Federation. The unclassified version of the NSS explains that the People's Republic of China

aims "to displace the United States in the Indo-Pacific" and has "expanded its power at the

expense of the sovereignty of others," while "Russia's aims to weaken U.S. influence in the

world and divide us from our allies and partners" (White House Office of the Press Secretary,

2017, p. 25). Finally, the NSS specifically requires the development of "integrated regional

strategies" to deter, disrupt, and defeat the known threats in the Indo-Pacific (namely the

People's Republic of China and North Korea), and in Europe (Russia; White House Office of the

Press Secretary, 2017, pp. 45-48).

National Defense Strategy

The secretary of defense publishes the NDS, which provides a broad strategic context,

and identifies the capabilities required by the joint force (the five military services of the Army,

Navy, Marine Corps, Air Force and Coast Guard) to support the NSS. The NDS is the DoD

capstone document that informs the NMS. Additionally, the NDS provides a framework for

other DoD strategic guidance, to include theater campaign and contingency plans for the

geographic combatant commands (Geise, 2010). The unclassified summary of the 2018 NDS,

highlights the novel forms and concepts of warfare and competition, and acknowledges the

"increasingly complex global security environment" and the "re-emergence of long-term,

strategic competition between nations" (of the type that characterized the stand-off with the

former Soviet Union) as together comprising the "primary concern in U.S. national security,"

(Mattis, 2018, pp. 1-2). The 2017 National Security Strategy and 2018 National Defense

Strategy have returned the national focus to great power competition and conflicts, which were

assessed in the 2015 NMS as having a low, but growing probability of occurring (CJCS, 2015b).

Today, the threat of conflict is real, and the United States faces an increasing possibility of great

power war (AUSA, 2018a). The new focus of the 2018 NDS on great power competition and

war replaced the terrorism focus that had been the priority since the terrorist attacks of

September 11, 2001 up through the 2015 NMS, which discussed competition and war only

briefly (CJCS, 2015b).

The 2018 NDS lists the People's Republic of China and Russia as the top two threats

facing the United States, describing them as 'revisionist powers' attempting to disrupt and

replace the current international security order established after WWII. The 2018 NDS further

states that China seeks "Indo-Pacific regional hegemony," while Russia seeks "to shatter the

North Atlantic Treaty Organization and change European and Middle East security and

economic structures to its favor" (Mattis, 2018, pp. 2, 4). The 2018 NDS identifies North Korea

and Iran as "Rogue Regimes" who seek regime survival and increased leverage and influence

through the pursuit of nuclear, biological, and chemical weapons (along with more effective

ballistic missile capabilities to deliver them), as well as conventional, and unconventional

weapons and capabilities to coerce and influence neighboring countries (Mattis, 2018, P. 2).

In addition to defining the threats, the 2018 NDS describes the future battlefield

conditions against these threats as being significantly more lethal. The increased lethality is due

improved enemy intelligence, surveillance, reconnaissance targeting capabilities coupled with

weapons systems characterized by vastly increased range, precision, and power that permit

enemies to strike friendly forces with precision and reliability over a vastly dispersed battlefield.

This appreciation of lethality extends to the American homeland as Chinese and Russian

warfighting doctrines and concepts specifically threaten the U.S. homeland (Mattis, 2018, p. 3).

Finally, the 2018 NDS addresses PME as a component of the "Strategic Approach," under the

heading of "Cultivating Workforce Talent" acknowledging that "PME has stagnated, focused

more on the accomplishment of mandatory credit at the expense of lethality and ingenuity"

(Mattis, 2018, p. 8). The 2018 NDS' focus on professional development promises "We will

emphasize intellectual leadership and military professionalism in the art and science of warfighting, deepening our knowledge of history while embracing new technology and techniques to counter competitors" and to develop "leaders who are competent in national-level decision-making…" (Mattis, 2018, p. 8).

National Military Strategy

Publication of the NMS follows in sequence the publication of the NSS and NDS. As of this writing, an unclassified summary of the 2018 NMS was not yet published to accompany the classified version, which was published in December 2018 (Mehta, 2019). The previous NMS published in 2015, addressed the importance of the strategy education component of PME to deterring war to maintain peace and security, and to achieving victory in future conflicts. Specifically, the 2015 NMS called for "continuous, demanding education [that] inspires new ideas and identifies better ways to accomplish our missions" while preparing leaders to "think critically and strategically in applying joint warfighting principles and concepts to joint operations" (CJCS, 2015b, p.14). The 2015 NMS acknowledged the importance of leader development as a means, "to retain our warfighting edge" and sought to improve the military education system to develop leaders who could, "Anticipate and adapt to surprise, uncertainty, and chaos" (CJCS, 2015b, p. 14).

The CJCS publishes the NMS, which transmits strategic direction to the armed forces, sets priorities and identifies needed capabilities for the military services to develop and provide the joint force, and provides guidance to the CCDRs to employ assigned forces in their assigned AOR. The NMS provides the military ways and means to achieve military objectives linked to the national objectives detailed in the NSS and NDS, serving as the framework for joint planning and development of theater strategies (USAWC, 2011). The unclassified summary of the 2015

NMS acknowledged the new "complex strategic security environment," called for "greater attention to challenges posed by state actors," and was one of the first national-level strategy documents to acknowledge and explain hybrid conflicts and hybrid warfare, citing Russian examples against Ukraine (CJCS, 2015b, pp. 3, 4, 10, 16).

Theater Military Strategy

Commanders of the Geographic CCMDs must develop a theater strategy that includes the coordination of military means with other instruments of national power in their geographic region (theater) (Meehan, 1986, USAWC 2018c).   The Theater Military Strategy is the bridge between strategic and operational levels of war, as it accomplishes strategic objectives by developing operational concepts and assigning operational level missions and tasks. Joint operations planners (FG Officers) assist and support the Commander in identifying appropriate operational concepts, and operational level objectives in support of the Commander's strategic concept and vision (Meehan, 1986, JFSC, 2000). Theater military strategies provide operational planners serving in the service component and sub-unified commands the guidance needed for the Service Component Commands supporting theater campaign plan, and subsequent operations and activities that are aligned with the Commander's strategy and that accomplish strategic-level objectives. Figure 1 on the following page provides a graphic illustration of the critical position of the Theater Military Strategy as it connects national strategic objectives in the NSS, NDS, NMS, and Joint Strategic Capabilities Plan (JSCP) to the operational level activities of sub-unified commands, JTFs, and the service component commands in the TCP, Operations Plans (OPLANs), and Contingency Plans (CONPLANs).
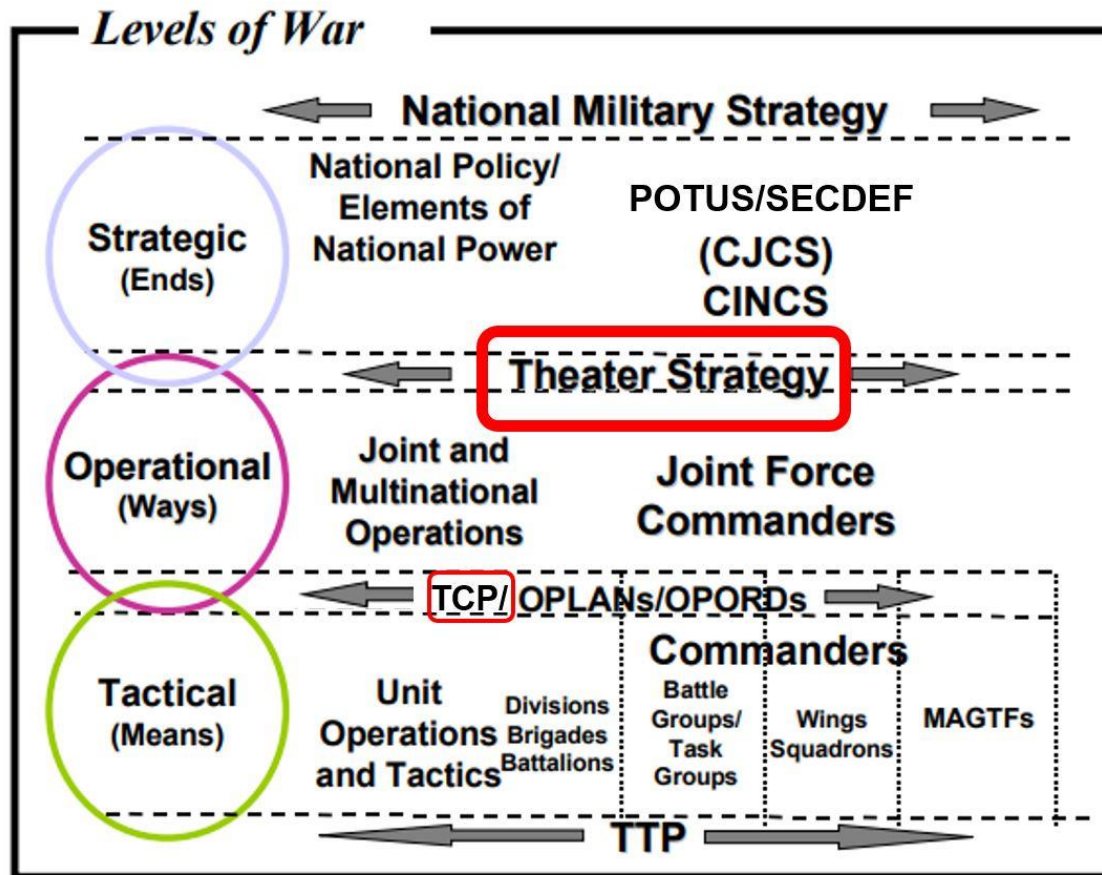
Figure 1. Levels of warfare and the place of the theater military strategy (JFSC, 2000, p. 3-4).

Senior FG Officers assigned to CCMDs and Sub-Unified Commands must have mastery

of both the strategic and operational arts to develop a theater military strategy (TMS) that is

comprehensive, feasible, and will accomplish the strategic goals, while at the same time provides

clear guidance and tasks to subordinate units. As COL John Meehan explained in 1986, "the

correct theater strategy is not self-evident. It can only be developed through a clear

understanding of the national military objectives and the nature of the theater itself," which

includes a thorough understanding of the adversary (Meehan, 1986, p. 14). The TMS provides

the CCDR's vision for the theater with respect to strategic objectives, adversary capabilities and

challenges, allied engagement, inter-agency coordination, as well as friendly force operations

and activities (JFSC, 2000). The TMS provides direction for his CCMD and subordinate

command staffs for campaign planning to achieve assigned strategic objectives in the peacetime competition phase, crisis, and conflict (JFSC, 2000).

Theater Campaign Plan

The Theater Campaign Plan (TCP) is the embodiment of a theater military strategy that graduates of the USAWC will contribute to as the member of a staff in a Geographic Combatant Command. "The campaign plan is the operational extension of the combatant commander's theater strategy" and translates tactical actions into strategic results (JFSC, 2000, p. 3-2). The TCP was recently re-named the 'Combatant Command Campaign Plan' (CCP) (see USAWC, 2018c, p. 16), but for the sake of simplicity, and to emphasize its relationship to the TMS, this dissertation will use the former, more descriptive term, Theater Campaign Plan, or TCP. The TCP explains how a CCMD will implement its theater military strategy. Each CCDR is responsible for developing a theater-focused campaign plan to execute the TMS, based on specific tasks in the Guidance for Employment of the Force (GEF, a directive published by the secretary of defense) and the JSCP, published by the CJCS. The GEF is normally developed in parallel with the JSCP to ensure, "complementary and synchronized guidance" from the secretary of defense and the CJCS, as expressed in the NSS, NDS, and NMS (USAWC, 2016c, p. 6). Joint Staff Officers at the CCMD develop the TCP and issue Operations Orders (OPORDERs) to direct subordinate commands to carry out operations in support of the TCP. Staff officers at the sub-unified and service component commands write supporting TCPs as the basis for their own operations and activities. It is through the TCP that, "the operational level commander ensures that events lead to achievement of the strategic goal" (Meehan, 1986, p. 15).

The CCMD theater strategy and campaign plans are prepared to achieve the strategic end states provided by the flow of strategic guidance detailed in the preceding paragraphs. In

addition, the CCDRs are also directed to, "create various contingency plans, which serve as branches to the theater's single campaign plan" (USAWC, 2016c, p. 6). USAWC graduates assigned to the geographic combatant commands and ASCCs will write these plans. The USAWC strategy education curriculum must ensure that USAWC graduates are ready to do so on the first day on the job, as the learning curve for unprepared officers can be steep and painful (JSJ7, 2012, p.1).

As this section has explained, the new and ongoing threats presented by our adversaries are clearly acknowledged in our NSS and NDS. Execution of national strategies will take place at the theater level, where the CCMD's theater military strategy is put into effect during the peacetime competition phase to deter adversaries while assuring Allies, through the TCP, and executed by operational and tactical level forces facing off against aggressive adversaries employing hybrid warfare operations. The Joint Staff has assessed that the U.S. military, "must be prepared to address peer competitors and irregular, catastrophic, and disruptive challenges" in the competition and crisis phases (JSJ7, 2018, p. 15). Accordingly, USAWC graduates must be able to competently contribute to the development of the TMS and TCP, and to confidently address the challenge of peer competitors employing hybrid warfare in gray zone conditions. The USAWC has assessed that current U.S. concepts for theater, "campaign design, the employment of forces, and the use of force are not well-adapted to persistent gray zone competition and conflict" (Freier et al., 2016, p. xv), pointing to an area for improvement in the strategy education curriculum.

The Competition Phase

Prior to the 2017 publication of JP 5-0, *Joint Planning,* the DoD employed a six-phase planning construct that segmented the path from peace to crisis to war. The six phases of this

construct were Phase 0 (peacetime shaping operations actions and activities to dissuade or deter

potential adversaries and to assure allies and partners), Phase I (deter the adversary in a

developing crisis), Phase II (seize the initiative), Phase III (dominate militarily through combat

operations), Phase IV (stabilize), and Phase V (enable civil authority to assume control) (CJCS,

2011b, pp. xxiii–xxiv). This phasing implied a linear progression of competition and conflict

through the culminating phase of major combat operations (Phase III), and stifled thinking about

how to effectively counter hybrid warfare, as America's adversaries do their best to accomplish

their objectives short of open conflict (Scharre, 2016). Writing in 2016, Dr. Robert Bebber of

U.S. Cyber Command, stressed that in the current security environment, "Phase 0 becomes the

most important [phase]*"* and that U.S. military planners must begin to, "think in terms of

'winning' in Phase 0 and construct concomitant theories of victory here, because that is where

the war is being waged" (p. 2).

The USAWC reported that the six-phased model was inadequate, "to seize and maintain

the initiative in the gray zone" against hybrid threats confronting the CCMDs (Freier et al., 2016,

p. xv). Accordingly, the Joint Chiefs of Staff has stressed that the old peace-crisis-war concept

must be eliminated if the U.S. is to be able to apply military force to expand the concept of

deterrence to effectively deter hybrid warfare during conditions of competition (VCJCS, 2018).

The concept of competition and the 'competition phase' will help to overcome a shortfall in the

old sequenced six-phase construct of joint military operations in crisis and war that encouraged a

bifurcation of thinking about military operations, actions and activities applied in warfighting,

and those military activities and operations conducted in peacetime (McDonald, Jones, & Frazee,

2012). The new un-numbered phase of pre-crisis competition (previously known as Phase 0),

can overlap with other phases (McDonald, Jones, & Frazee, 2012). The current Joint Staff

publication 3-0, *Joint Operations*, removed the six-phased model (CJCS, 2011b, p. iii), and phase 0 is now referred to as the competition phase.   Theater campaign plans are designed to be executed in the competition phase, where the U.S. is encountering hybrid threats with increasing frequency.

Victory or Defeat in the Competition Phase?

As discussed in Chapter One, the Army describes winning in the competition phase as expanding the competition space for friendly military operations and denying the adversary his objectives while achieving an operational position of advantage (TRADOC, 2019). Galvin, T., et al. (2019) explain that in the competition phase, the U.S. and her adversaries, "strive to obtain and sustain competitive advantage," which includes establishing, "a unique or primary claim to valuable resources, control of or decisive influence over a crucial decision, or the power to destroy, coerce, or compel an adversary" (p. 13).   Posture statements to the U.S. Congress submitted by the CCDRs of U.S. Indo-Pacific Command and U.S. European Command, facing our top priority threats, reveal that the United States is currently not winning in the competition phase against the top 2 threats identified by the NSS and NDS.

In testimony before the House Armed Services Committee February 14, 2018, ADM Harry Harris, Commander of U.S. Pacific Command, explained that the 2018 National Defense Strategy, "aims to Compete, Deter, and Win alongside our allies and partners," but also admitted that, "China's provocative and destabilizing actions in the South China Sea continue unabated" (Harris, 2018a, p. 6). One month later in testimony to the Senate Committee on Armed Services that in the Pacific Theater, his command. Faces, "a security environment more complex and volatile than any we have experienced in recent memory" and that China was continuing an, "…impressive military buildup that could soon challenge the U.S. across almost all domains"

(Harris, 2018b, p. 10).   In his testimony before the Senate Armed Services Committee hearing addressing the emergence of China and Russia as great power competitors and the implementation of the NDS, Ely Ratner, former deputy national security advisor to Vice President from 2015-2017, testified that concerning the strategic competition with China, "the United States, on balance, is currently losing this competition in ways that increase the likelihood not just of the erosion of U.S. power, but also of the rise of an illiberal Chinese sphere of influence in Asia and beyond" (Ratner, 2019, p. 2). LtGen, Ret. Michael Dana, addressing the competition phase in the Indo-Pacific Theater stated bluntly that the United States is "losing ground" to the PRC (Dana, 2019). LTG Eric Wesley has stated that U.S. deterrence efforts against her major adversaries are not effective, if those adversaries, "are achieving their operational and strategic objectives 'left of conflict'" in the competition phase (King & Boyklin, 2019). General Curtis Scaparrotti, Commander of U.S. European Command in his 2019 posture statement to the Senate Committee on Armed Services described an undeterred and unrestrained Russia that, "has invaded Ukraine, occupied Crimea, launched cyber-attacks against the Baltic States and Ukraine, interfered in U.S. and other Western elections, and attacked Ukrainian Navy vessels…" (Scaparrotti, 2019, pp. 1-2).

　　In addition to these senior leader assessments, several policy and news journals such as *Voice of America, The Wall Street Journal The Japan Times The Diplomat,* and *The Huffington Post,* and others have reported that America is losing the competition phase, with articles describing the loss of U.S. influence and control, and being outmaneuvered diplomatically and in the information environment (Ridgewell, 2016; Bohane, 2017; Chellaney, 2018; Guild, 2017; Paskel, 2017). In a recent USAWC publication focused on 'Gray Zone Warfare," Troeder (2019), summed up the current state of affairs:

Gray zone warfare, also known as irregular warfare, political warfare, hybrid warfare, asymmetric warfare, and unconventional warfare, is increasingly becoming the norm. It is a significant concern today, threatening U.S. national security as well as the security of U.S. allies and partners. Despite its population's immense capacity for creativity and innovation, the United States is losing this war (p. xi, emphasis added).

The foregoing assessments demonstrate the importance of getting theater military strategy and campaigning right for effective peacetime competition against our near peer adversaries, and capture the seriousness of the current situation, which is that the United States is not winning in the complex world in the competition phase.

Structure and Oversight of the Strategy Component of U.S. PME

Strategy Education is just one of many components of PME, however it is arguably the most important component in terms of impact on national security through the development of effective military strategy. Congressional legislation, Department of Defense oversight requirements, and Joint Chiefs policy instructions require the War and Staff Colleges to effectively teach strategy, and provide standards of performance for this task. The joint staff publishes policy for PME, which is supported by the PME policies and programs of each of the military service branches (Army, Navy, Marines, Air Force, and Coast Guard). The purpose of this oversight is to ensure that PME is properly connected to, and is fully supporting the NSS, NDS, and NMS, and is preparing field grade officers for success at 3 and 4-Star HQs where they will write the theater military strategy, plans, and orders to carry out military operations, actions, and activities during the competition phase. This section provides an overview of those policies, programs, regulations, and concepts that affect the strategy education component of PME.

Congressional Legislation

The need for strategy education as a component of field grade PME is written into law by the Congress of the United States, Title 10 of U.S. Code– Armed Forces, Subtitle A - General Military Law, Part III -Training and Education, Chapter 107, Professional Military Education, provides legislation governing PME. Section 2151 of Chapter 107 provides the following definition of Joint PME:

> Joint professional military education consists of the rigorous and thorough instruction and examination of officers of the armed forces in an environment designed to promote a theoretical and practical in-depth understanding of joint matters and, specifically, of the subject matter covered. (U.S. Congress, 2011, p. 1072)

> Section 2155 also specifies that the curriculum for the Phase II of the Joint PME taught at

the joint and service war colleges, "shall include the following…1) National security strategy. 2) Theater strategy and campaigning" (U.S. Congress, 2011, p. 1072). The current structure and content of the OPMEP was shaped by Congressional oversight of PME carried out by Representative Ike Skelton (D-MO), ranking member, and later chairman of the HASC over a period of 13 years from February 1998 to January 2011 (Kuehn, 2016). Within the HASC, Rep. Skelton formed a panel to monitor PME across the armed forces. The Skelton Panel conducted extensive inquiries into the state of PME, which will be examined later in this chapter.

Department of Defense Oversight of Professional Military Education

The DoD oversees Joint PME and requires the services to align and support Joint PME requirements. The secretary of defense is required to report to Congress annually on the graduate output of JPME level II course taught at the joint and service war colleges and the number of faculty members and officer students assigned by service to those colleges (U.S. Congress, 2011). The Undersecretary of Defense for Personnel and Readiness (USD P&R) has oversight

of training and education. The OUSD P&R is supported by a deputy assistant secretary of

defense for force education and training who is responsible for the development of policies and

plans for military training and education to include JPME (OUSD P&R, 2018).

Chairman of the Joint Chiefs of Staff Oversight of PME

The Joint Chiefs of Staff provides the OPMEP instruction which provides requirements

for strategy education for all joint and service staff and war colleges. The structure of today's

field grade PME in U.S. military staff and war colleges is outlined in 124 pages of the 2015

OPMEP instruction published by the CJCS (CJSCI 1800.01E). The forward to the 2011 version

of the OPMEP (CJCSI 1800.01D), penned by CJCS Admiral Michael Mullen, explains that the

purpose of PME is to ensure, "that officers are properly prepared for their leadership roles at

every level of activity and employment, and through this, ensure that the U.S. Armed Forces

remain capable of defeating today's threat and tomorrow's" (CJCS, 2012, p.1). The future

unknown threat of 2011 is here now, and it is very complex, as outlined in the review of the 21st

century security environment in the opening section of this chapter. The most recent revisions of

OPMEP guidance articulate that the PME system should produce,

> Critical thinkers who view military affairs in the broadest context and are capable of
>
> identifying and evaluating likely changes and associated responses affecting the
>
> employment of U.S. military forces… skilled joint warfighters, [who] can develop and
>
> execute national military strategies that effectively employ the Armed Forces in concert
>
> with other instruments of national power to achieve the goals of national security strategy
>
> and policy… (CJCS, 2012, pp. A-A-1, 2, and; CJCS, 2015, p. A-A-2).

The 2015 version added that PME should produce leaders who can, "think critically and

strategically in applying joint warfighting principles and concepts" in joint operations and can

identify and evaluate likely changes in the security environment (CJSCI 1800.01E, pp. A-3 and A-A-1).

At the intermediate level of PME (staff college), the focus of the curriculum for officers at the pay grade of O-4 is, "on how the combatant commanders, Joint Staff, and Department of Defense use the instruments of national power to develop and carry out national military strategy, develop joint operational expertise and perspectives, and hone joint warfighting skills" (CJCS, 2012, p. A-1-7). The focus of Senior PME is, "to prepare students for positions of strategic leadership and advisement; senior education focuses on national security strategy, theater strategy and campaigning, joint planning processes and systems, and joint interagency, intergovernmental, and multinational capabilities and integration" (CJCS, 2012, p. A-A-5). The war colleges' curricula should address, "theater- and national-level strategies and processes," with a, "focus on how the combatant commanders, Joint Staff, and Department of Defense use the instruments of national power to develop and carry out national military strategy, develop joint operational expertise and perspectives, and hone joint warfighting skills" (CJCS, 2012, p. A-A-7).

The OPMEP provides 16 learning objectives organized into four major learning areas, namely: 1) National Security Strategy; 2) Joint, Interagency, Intergovernmental, and Multinational Capabilities; 3) Theater Strategy and Campaigning, and; 4) Joint Planning Process and Systems (CJCS, 2015, pp. E-C-1 to E-C-3). Under OPMEP Learning Area 3 – Theater Strategy and Campaigning lie the following 4 learning objectives, which address development and execution of theater military strategies and theater campaign plans in the complex world as directly faced by CCMDs, Sub-Unified Commands and ASCCs:

1) Analyze the theater area of responsibility (AOR) using current national strategic

guidance to compile a regional assessment as the foundation for theater strategy,

campaign planning and security cooperation planning.

2) Analyze examples of theater strategy, campaign planning, and operations. Focus on

the use of planning concepts, techniques, and procedures as well as integration of joint

functions.

3) Apply an analytical framework that incorporates the role factors such as geopolitics,

geostrategy, society, culture, religion, and other regional factors play in shaping the

desired outcomes of policies, strategies, and campaigns in the joint, interagency,

international and multinational arena.

4) Apply the fundamentals of traditional and irregular warfare. (CJCS, 2015, pp. E-H-3)

Army Orders, Regulations, and Pamphlets on Professional Military Education

General Order 2016-10 (GO 2016-10), signed by Secretary of the Army Eric K. Fanning,

established the Army University, putting all strategy education in the Army under a university

structure (HQDA, 2016b). Army Regulation 600-3, The Army Officer Education System (OES),

assigns to the Army Training and Doctrine Command (TRADOC) oversight of the personnel

development system for those branches, functional areas, career management fields, and soldier

skills assigned to TRADOC subordinate command, centers, and schools (HQDA, 2009). Army

Regulation 350–1 (AR 350-1), *Army Training and Leader Development*, provides policy and

guidance for Army training and leader development. As an Army institution, the Army

University is also responsible to meet unique requirements for strategy education for

practitioners of what the Army calls 'landpower,' which is, "the ability—by threat, force, or

occupation—to gain, sustain, and exploit control over land, resources, and people" (HQDA,

2012b, p. 1-4). Moreover, AR 350-1 provides Army goals for Army training and leader

development, and explains the structure of the Army School System. AR 350-1 assigns the

USAWC the mission, "to educate and develop leaders for service at the strategic level while

advancing knowledge in the global application of Landpower" (HQDA, 2014b, p. 77).

Department of the Army Pamphlet 600–3 (DA PAM 600-3), *Officer Professional*

Development and Career Management, outlines officer development and career management

programs for each of the Army's career branches and functional areas (HQDA, 2017b). Chapter

4, "Officer Education," of DA PAM 600-3 explains that the OES, "is a sequence of the PME for

professionals in subjects that enhance knowledge of the science and art of war" (HQDA, 2017b,

p. 22). DA PAM 600-3 explains the mission of the USAWC:

> The Senior Service College (SSC) provides senior level PME and leader development
>
> training. The Army's SSC, the U.S. Army War College, prepares military, civilian, and
>
> international leaders to assume strategic leadership responsibilities in military or national
>
> security organizations. It educates students about employment of the U.S. Army as part of
>
> a unified, Joint, or multinational force in support of the national military strategy,
>
> requires research into operational and strategic issues, and conducts outreach programs
>
> that benefit the nation. (HQDA, 2017b, p. 8)

The Army's Training and Doctrine Command Regulation 10-5, *U.S. Army Training and*

Doctrine Command, assigns missions and responsibilities for all TRADOC organizations.

TRADOC Reg 10-5 lists 13 core functions for TRADOC which include #2 Leader Development,

#3 Education, and #5 Doctrine. The development of doctrine shapes strategy education, as

TRADOC provides Army war-fighting concepts and doctrine that strategy will employ

(TRADOC, 2017a). TRADOC Pamphlet 350-70-16, *Army Training and Education Proponents*,

assigns proponent responsibilities (known in the military as *proponency*) for various disciplines

and levels of PME to Army schools and colleges. TRADOC PAM 350-70-16 assigns

responsibility for JPME level I (JPME I, initial level field grade PME), to the CGSC. The same

directive assigns JPME II to the USAWC along with proponency for strategy education

(TRADOC, 2016, pp. 22, 55).

Goal for Strategy Education: Mastery of the Strategic Art

Former CSA, General Kroesen (2018), has argued that just as company grade officers

must possess mastery level skills in tactics and tactical level military operations, so must field

grade officers possess the same for strategy and the strategic level of war. The term *mastery* is

used throughout this dissertation to describe both a learning goal orientation, and a level of

competence in the practice in the strategic art. Mastery of the strategic art is the demonstrated

competency in the roles developed by Major General Richard Chilcoat of strategic leader,

strategic theorist, strategist, and strategic practitioner in the formulation and execution of

national or theater-level military strategies that are effective in obtaining national strategic and

theater-level objectives. Today's certified Army strategists (Officers selected and trained for the

Strategist Functional Area 59) most closely resemble the strategic practitioner, responding to the

demands of the Army and Joint Force in developing strategies and plans for implementation at

the operational level (Moore, 2009). Moore, (2009) explains that Officers qualified as strategic

practitioners, "warrant assignment" to, "national military staffs (defined as the Service staffs,

Joint Staff, and Office of the Secretary of Defense) as well as the staffs of the combatant

commands and sub-unified commands across the globe" (p. 10).   "Without mastery of the

strategic art, the joint operation planner cannot craft military plans that are in synergy with the

strategic goals of the United States" (JFSC, 2000, p. 2-2). Joint planners require competency in

the strategic art, as they must transform national strategic objectives into activities by developing operational plans and products for the, "mobilization, deployment, employment, sustainment, redeployment, and demobilization of joint forces" (JSJ7, 2018, p. 44). Mastery is also a learning goal, and in this context, goal orientation theory provides two learning goals, namely mastery and performance. In adopting a mastery orientation to learning, students seek to learn as much as possible for the purpose of self-improvement and competency, irrespective of the performance of others (Dembo & Seli, 2016, p. 48). Success is defined as mastery of the subject matter, innovation, creativity, and progress, and the student sees his or her ability to improve based on effort (Dembo and Seli, 2016, p. 48).

An important component of mastery as a learning goal, and as a competency in strategy development, is the concept of critical thinking. Per Army Doctrine Reference Publication 6-22, *Leadership* (HQDA, 2012a), critical thinking is defined as

> a thought process that aims to find facts, to think through issues, and solve problems. Central to decision making, critical thinking enables understanding of changing situations, arriving at justifiable conclusions, making good judgments, and learning from experience. Critical and creative thinking are the basis for the Army Design Methodology to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them. (p. 5-1)

The Foundation for Critical Thinking (2018) defines it as a mode of thinking, "about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it." Critical thinking is an enabler of the Army's Military Decision-Making Process and strategy formulation (Allen & Gerras, 2009; Usry, 2004,). When applied to strategic thought, critical thinking is understood be the use of

deliberate processes to evaluate and select information in order to improve judgment and make better decisions (Allen & Gerras, 2009). Critical thinking in a military decision-making and strategy formulation context requires strategists to construct and defend evidence-based arguments that recognize and counter logical fallacies and determine both the merits and faults of concepts under consideration (Williams, 2013).

The USAWC faculty has examined the competencies of a master strategist and identified three roles, strategic leader, strategic theorist, and strategic practitioner (Yarger, 2010). The strategic leader role focuses on the ability to provide vision and focus in senior leadership positions, and to inspire critical thinking and action of seniors, peers, and subordinates in the development of strategy. The strategic theorist is able to draw upon knowledge of the history of warfare, as well as the study of modern warfare, to formulate strategic concepts and theories that can be integrated in support of the U.S. NSS, NDS, and NMS. The third and final role of strategic practitioner is focused on developing and executing strategic plans for the employment of military forces in pursuit of national strategic objectives, which is accomplished via a theater military strategy, the TCP, and operations. Arguably, USAWC graduates must perform all three roles when assigned the 3 and 4-Star HQs facing America's adversaries in the peacetime competition phase.

The USAWC strategy appraisal model provides 15 premises of strategy, which includes the premise that "effectiveness is paramount" – they must work, and must achieve assigned strategic objectives (Yarger, 2010, p. 186). Preparing USAWC graduates to meet this standard requires prioritization in the curriculum and rigor in instruction. Johnsen (2007, as cited in Yarger, 2010), provides a possible model of mastery of strategy that is borrowed from the business world wherein mastery of strategy is certified by demonstrating skill in producing

strategies that are effective. Retired Army Colonel David Maxwell (2012), proposed a framework for educators for practitioner competency levels of graduates of the staff and war colleges in the fields of operational art and strategic art, where the staff college graduate would be considered an expert practitioner, and the war college graduate a master practitioner. This approach serves to accomplish both the mastery performance and learning orientation goals. According to COL, Ret. Maxwell (2012), the master practitioner of the strategic art would "have the demonstrated ability and educational background to support the development and execution of National Security and Theater Level Strategy" (n.p.). Mastery level competence should be the goal of USAWC strategy education, as all "War College graduates will be expected to make strategy" (Marcella & Fought, 2010, p. 82). COL, Ret. Maxwell's proposed master practitioner framework provides a ready-made construct for the USAWC learning objectives for strategy education.

This section reviewed the oversight responsibilities of Congress, the secretary of defense, the CJCS for Joint PME, and Army orders, regulations, and directives for Army PME. In the realm of strategy, the key focus of these various oversight efforts is to produce field grade officers who are doctrinally competent, strategically-minded critical thinkers able to operate in complex environments, to recognize adversary strategy in execution, and to develop effective counter strategies to deter hybrid warfare and full-scale war. The stated goal of strategy education is to develop mastery of the strategic art, which is demonstrated in the development of theater military strategies that enable the U.S. to win in the complex world, during completion and war.

Past Efforts at Reforming U.S. Strategy Education

Reviewing the experience of the military school system in the years immediately after, or during the conduct of major wars and conflicts provides us with a reference point for past reforms that improved PME to adjust to the ever-changing characteristics of modern warfare. The history of Army PME has shown that the changing character of war, and changes to the security environment and potential threats, have driven intense re-examinations of strategy education that resulted in change to curriculum content, the establishment of new courses and schools, and to large scale re-organization of the Army School System. The majority of U.S. Army schools and colleges have been established in response to new forms of warfare, as they have been revealed in wars across the globe, and not only those in which America fought. As examples, the Infantry School of Practice (founded 1826) and the Artillery Corps of Instruction (founded 1824), responded to advances in muzzled weaponry, and the fire and maneuver tactics of employment developed in the Napoleonic Wars (1803–1815) and the British-American War of 1812 (1812-1815), (HQDA, 1954, p. 24). The history of the Army War College follows a similar pattern of major restructuring following significant changes in the character of warfare and adversary threat capabilities. The Army War College 2018 Academic Programs Guide and other documents explain the history of the College as four distinct incarnations, known as the, "four War Colleges." (USAWC, 2017g). The 'first War College' was founded, "to improve the professional preparation of senior officers," based on our experience in the War with Spain and challenged logistics. The 'second War College' was founded after the First World War, and was based on the Army's experience with large-scale modern warfare and mobilized industry. The 'third War College' reformed following our experiences with World War II and beginning of the Cold War, and then the 'fourth War College' focused on post-Cold War, 9/11 the Global War on

Terrorism and Counter-Insurgency fights in Afghanistan and Iraq. In each case, the Army War College underwent significant transformation to respond to the complexities of the threats and the overall security environment. These major reformations of the Army War College present a history of dramatic organizational change in response to the changing character of warfare and the overall strategic environment. The following modern examples demonstrate a pattern where senior leaders and practitioners have pushed for curriculum reform in response to changes in the character of warfare and the introduction of new forms of warfare by foreign powers.

Post-WWII Gerow, Haislip, and Eddy Boards 1945-1947

The decade of the 1940s was not the first time that the extant and emerging challenges of the global security environment have driven assessments of, and calls for change in, the focus and direction of field grade officer education, particularly in strategy education. The Cold War challenge faced by Gerow, Haislip, and Eddy Boards is relevant once again as the United States finds itself in what Michael Lind and others have dubbed 'the Second Cold War' against China and Russia (S. Cohen, 2018; Lind, 2018a, 2018b; Glasser, 2017). The perpetual global military competition has driven the Department of Defense at various points throughout its history to examine whether its field grade officer education was sufficient, and when assessed to be lacking, to identify gaps and develop/implement solutions.

The now declassified War Department (forerunner to the Department of Defense) Haislip Board Report (1954), provides a glimpse into the significant strategic challenge the United States faced with worldwide communist aggression abroad and subversion inside the United States, and how the War Department sought to improve strategy education. At the end of WWII, the War Department formed a board led by Lieutenant General Leonard Gerow with highly-qualified officers in 1945, to re-examine the educational system and to make recommendations for the

post-war school system based on, "experience gained during the war and in the light of new developments in the nature and complexity of highly lethal modern warfare" (HQDA, 1954, p. 20). The Gerow Board focused squarely on the Army's Field Grade Officer schools and field grade strategy education (HQDA, 1954, Jordan, 2004). The Gerow Board also recommended the establishment of a National War College, "with a view to conducting instruction in joint high-level policies. command and staff functions and strategic planning, primarily in the field of global strategy" (HQDA, 1954, p. 19).

Following the Gerow Board, the Haislip Board in 1947 responded to an identified gap in senior officer instruction to develop plans, "at the highest War Department theater and zone of the interior levels," which is understood today to be at the level of theater strategy and campaigning (HQDA, 1954, p. 21). This board determined that a gap existed in the education system for adequate instruction for officers in general staff duties at these higher levels, and that this gap in officer education might best be closed by the re-establishment of an Army War College (HQDA, 1954, p. 21). The Haislip Board is an historical example of the challenge we now face in instruction for developing strategy at the theater level to counter enemy strategies employing complex and novel concepts, doctrines, strategies and forms of warfare.

The Haislip Board was followed in 1949 by the 'Eddy Board,' led by Lieutenant General Manton S. Eddy, which reviewed the entire OES and to recommended the establishment of the USAWC on a temporary basis at Fort Leavenworth KS, which accepted its initial class in 1950 (HQDA, 1954, Jordan, 2004). These substantial and lasting changes were made over a period of just five years in response to lessons learned in the Second World War, and the Cold War that immediately followed.

Post-Cold War Period 1989 – 2001 PME Reform

The Army conducted several reviews of Officer PME during the Cold War period under the leadership of Generals William E. DePuy, Paul F. Gorman, Don Starry, and Carl Vuono (Jordan, 2004). The outputs of these efforts were updated training and leader development strategies for all ranks in response to new doctrine, changing technology, increasingly sophisticated weaponry, and major changes to the Army's institutional structure for training, referred to as 'the training base' (Chapman, 1994). The post-Cold War period introduced a higher priority for a variety of military missions commonly known as Military Operations Other Than War (MOOTW). These missions were previously considered a low-priority during the Cold War stand-off against the vast military might of the former Soviet Union and the Warsaw Pact. Adjusting to the new realities of MOOTW, also required a re-examination the operational art and strategy components of field grade PME, which was the focus of a dedicated study (Jordan, 2004). Assessing field grade PME in the post-Cold War Era, Arnold (1993) emphasized that it must continue to evolve if it is to reflect the changing character and forms of war, and that changes in curriculum were necessary before curriculum shortcomings would be manifested in battlefield failures. A few years later in an issue paper published by the Institute of Land Warfare, the AUSA reinforced that the relevant question to answer was still whether PME was preparing graduates to be effective in the future security environment (AUSA, 1997). Arnold (1993), also reported that many officers perceived that the strategy education curriculum in CGSC and USAWC did not, "sufficiently prepare any officers as strategists" while the demand for such skills was growing sharply (p. 34).

A 2003 report sponsored by the U.S. Army conducted by the RAND Corporation assessing U.S. Army leader development efforts in the post-Cold War era and found that both

CGSC and the USAWC curricula lacked, "any in-depth examinations of actual post–Cold War

… experiences to provide students an understanding of the non-doctrinal realities these

operations imposed on Army senior leaders" (Johnson, 2003, p. 19). Also writing about field

grade PME, in the post-cold war era, Beaulieu (2012) emphasized the importance of a clear

focus on the new and emerging forms of warfare that officers would face in the field. The 2003

Army Training and Leader Development Panel's Officer Study Report made clear in its major

findings that the OES was not educating officers on the new security environment and found

that, "it must add stability operations, and support operations to OES" (USACAC, 2003, p. OS-

11). The implication of the preceding observations is that field grade PME during the post-Cold

War period was not keeping up with the new military environment its graduates would encounter

following completion of CGSC and USAWC instruction.

The USAWC adjusted its strategy education curriculum to match the new prioritization

of these missions which ranged from peace enforcement, sanctions enforcement, building partner

nation military capacity, and more. Brigadier General Daniel Kaufman, as Dean of the

Academic Board of the United States Military Academy, described the post-Cold War challenge

to PME in similar language to today's environment, "the demands placed on the leaders of the

nation's military services have grown in scope and complexity. These demands extend well

beyond the traditional service responsibilities for fielding well-trained and equipped forces to

carry out combat or other types of operations" (Smith et al., 2001, p. 7). The USAWC met those

challenges by emphasizing in its curriculum working in joint, inter-agency, and combined

operations (with allies and partners) instead of the work in Army Corps, Numbered Army, and

Army Group level warfighting on the inner-German border that drove Cold War military force

preparations, education and training (Smith et al., 2001). According to Dr. Robert Dorff, former

Chairman of the USAWC's Department of National and Security Strategy (responsible for strategy education), the USAWC examined its curriculum in response to the post-Cold War challenges to see what course content was no longer relevant, and which aspects of the new post-Cold War security environment required new course content to address them (Smith et al., 2001, p. 26). Arguably, this is a model for today's re-assessment of strategy education in response to the current security environment that is likewise challenging the Army's education and training models.

House Armed Services Committee Panel on PME 1987-1989 and 2009-2010

In 1987, following the passage of the Goldwater-Nichols Department of Defense Reorganization Act of 1986 (Public Law 99-433) the HASC established a panel on PME led by Representative Ike Skelton (D-MO). Known as the Skelton Panel, this body undertook a comprehensive Congressional review of PME in response to the security challenges of the Cold War. The HASC Panel on PME again responded to the new security challenges of the post-Cold War security environment, by holding seven significant hearings that focused on PME and during the 111th Congress, increased accountability of the Department of Defense to Congress on the effectiveness of PME (HASC, 2009a, 2009b, 2009c, 2009d, 2009e, 2009f, 2010). The first of these, held on June 4, 2009, was titled, "Thinkers and practitioners: Do senior professional military education schools produce strategists?" (HASC, 2009a). These hearings also examined whether officers were sufficiently prepared for the post-Cold War security environment (HASC, 2009c), whether the staff and war colleges were sufficiently rigorous (HASC, 2009d), and other aspects of PME that directly related to strategy education. At the conclusion of these hearings regarding strategy education, the panel found that, "Joint and Service efforts to cultivate military strategists were disassociated from one another," and recommended to the joint staff to

coordinate field grade PME across the joint force (HASC, 2010, p. xiii). The panel further

recommended that the joint staff consider sponsoring additional officers for master's and

doctoral degree programs, "at top-tier civilian universities" in strategy-related disciplines, such

as history, political science, economics, and international relations (HASC. 2010, p. xiii). The

HASC Panel on PME urged that, "All of the services should cultivate strategists to assume

positions of senior command authority" (HASC, 2010, p. xiv). The same panel reported on the

concerns expressed by senior admirals and generals, who in their testimonies graded the quality

of PME instruction by the performance of field grade PME instruction as lacking in several

respects:

> Some operational commanders, including the Combatant Commanders, reportedly
>
> consider their staff officers lacking in certain critical abilities necessary to perform their
>
> jobs effectively. Significant numbers of officers are serving in staff positions without
>
> having appropriate levels of PME prior to assignment. Furthermore, many officers
>
> reportedly consider the PME they receive to be inadequate preparation for these
>
> assignments (HASC, 2010, p. xiii).

While the quote above is now 9 years old, the challenge for newly arriving field grade officers

from all services to contribute to the development of theater military strategies is made

significantly more challenging as a result of the dramatic changes in the security environment

now addressed by the AOC.

Post 9-11 Global War on Terror Impacts on Professional Military Education

The global war on terrorism once again changed the focus of strategy, and this drove

changes to strategy education and doctrine development. Simultaneously, the demands of

military operations in Afghanistan and Iraq, "shrank the total [Army] school system – students,

faculties, and course lengths were reduced, and curricula refocused to operations and warfighting at the expense of the broader educational subject matter previously covered" (Kroesen, 2017, p. 7). Major General Gordon B. Davis Jr., Brigadier General Thomas C. Graves, and Colonel Christopher N. Prigge (2013) examined the many challenges of strategic planning in *Military Review* magazine, highlighting various attempts over time the Army has tried, to include design methodology, which was an initiative launched in 2011. This program was instituted in the School of Advanced Military Studies of CGSC, which certifies its graduates as Army strategists who are authorized an additional skill identifier in their record as an official certification. The design methodology required planners to, "spend considerable time defining the environment and framing the problem before beginning to identify a solution" and "emphasized the need for critical and creative thinking and iterative solution processes to understand clearly the depth of the problem that operational planners encountered on the ground" (Davis et al., 2013, p. 11). Defining the environment includes a full appreciation of the adversary's concepts, doctrines, strategies and forms of warfare. CGSC's School of Advanced Military Studies faculty implemented this concept into their base curriculum, thereby improving strategy education for the small number of students selected for the additional second year of study at CGSC and demonstrating how a faculty elected to improve their strategy education curriculum, albeit with its most demanding program that educates a small fraction of each CGSC class.

Army PME Reform 2012

General Raymond Odierno, while CSA, directed the USAWC to conduct an institutional self-assessment and to develop recommendations for improving strategy education (Cucolo & Betros, 2014). Following this self-assessment, the USAWC adopted new learning objectives with reinforced the focus on subjects related to strategy formulation and the employment of

forces at the strategic level (Cucolo & Betros, 2014, p. 53). USAWC faculty made numerous

changes to emphasize critical and creative thinking, by adjusting course scheduling to achieve

better learning outcomes, shortening the core curriculum to carve out more time to focus on

priority topics, and adjustments to improve learning of strategy (Cucolo & Betros, 2014, p. 53).

Reflecting the urgent need for better strategy education, the Army also launched its own

program outside the USAWC to test a new approach. Responding to the need for more capable

strategists to support 3 and 4-Star HQs, General Odierno in 2012 directed the establishment of

the Advanced Strategic Planning and Policy Program (ASP3). This action was the result of GEN

Odierno's experiences during his multiple command tours in Iraq where he concluded that the

Army had a shortage of Officers who could think strategically and produce plans for the

challenging complex environment the Army faced in Iraq (Kubiak, 2017, n.p.). The vision of the

program was to develop, "field-grade officers as strategic thinkers through a combination of

practical experience, senior-level professional military education, and a doctoral degree from a

university in a field of study related to strategy" (Kubiak, 2017, n.p.). This program was

designed to provide officers selected for the program the opportunity, "to spend as many as six

years earning their degree and working in strategy-related developmental jobs; following

graduation, they are then expected to provide a return on the Army's investment with a minimum

of three years served in an additional utilization tour anywhere the Army has the need for their

capabilities" (Kubiak, 2017, n.p.). This represented a serious commitment of resources to

develop strategists, highlighting once again the intensity of the demand for trained strategists

across the Army and Joint Force.

This section reviewed past efforts to reform field grade PME in the area of strategy

education in response to major shifts in the security environment in order to demonstrate that the

current challenge facing the USAWC has been successfully managed before. PME reform in

response to worldwide Communist-led aggression and subversion provided the Army with

warfighting concepts that enabled the United States and its allies to win the Cold War, marked

by the dissolution of the Warsaw Pact mutual defense organization, and followed by the

dissolution of the former Soviet Union. Congressional oversight during the post-Cold War

period and continuing until the beginning of this decade focused on the quality and focus of field

grade PME and on producing the strategists needed by the services and the CCMDs. Congress

put pressure on the service and Joint war colleges to improve strategy education. The post-9-11

security environment was likewise a very complex one that required new operational strategies

to deal with unconventional threats. More recently, the Army's ASP3 effort has also focused on

strategy education, while the USAWC's self-assessment has resulted in positive changes to the

curriculum that will improve strategy education learning outcomes. The 21st century security

environment, while complex and threatening, is one that can be understood through continuing

efforts to stay abreast of adversary concepts, doctrines, strategies and forms of warfare. Finally,

continuous improvement in strategy education curriculum can equip USAWC graduates with

mastery level skill to counter adversaries with effective theater military strategies they will write

at 3 and 4-Star HQs.

Recent Criticisms of U.S. Professional Military Education

As this evaluation study will be looking for performance gaps that may be preventing the

USAWC from achieving the stakeholder goal, it is useful to review past criticisms of U.S. PME,

with an emphasis on strategy education. While the focus of this research project is the USAWC,

the critiques of all the joint and service staff and war colleges point to the potential causes of

performance gaps for strategy education. Much of the serious critique of DoD PME comes from

former and current administrators, professors, graduates, and senior commanders who employ

PME graduates in their military headquarters. The issues of academic rigor, professor/instructor

teaching effectiveness, and insufficient attention in the curriculum focused on understanding our

potential adversaries are the most relevant to this study.

Academic Rigor and Critical Thinking

The 2017 Army University learning strategy states that the Army should develop rigorous

and relevant learning content that is tied to desired performance outcomes in the operational

context in which Army leaders will serve (Kern, 2017). For field grade officers, this refers to the

CCMDs and Army Service Component Commands where theater military strategies are

developed. The U.S. Army's seminal publication, *The Army* (Army Doctrinal Publication 1),

explains that, "as with previous post-war transitions" the Army, "requires greater intellectual

rigor applied to the professional military education and operational art" (HQDA, 2012b, pp. 4–

7). As previously explained, mastery of the operational art is, "one of the first and most

elementary steps" in, "the establishment of a theater strategy" (JFSC, 2000, pp. 3–24). The issue

of academic rigor at the staff and war colleges, has been a steady component of criticisms

leveled by several military and civilian faculty members (Kelley & Johnson-Freese, 2014; N.

Murray, 2013b, 2016), and by students (Riley, Hatfield, Freeman, Fallesen, & Guntier, 2015), as

well as by reporters and writers (Goldich, 2012; Ricks, 2012, 2013a, 2013b). The Army's 2015

Talent Management Concept critically reported that broadly the Army's PME programs were not

rigorously credentialed, and did not adequately assess student performance against desired

learning outcomes (USACAC, 2015, p. 25). Analyzing the level of academic rigor in the various

staff colleges and war colleges, Dr. Nicholas Murray sees the lack of rigor as part of the problem

in failing to produce, "…the types of critical and creative strategic thinkers required in an

increasingly complex world" (2016. n.p.). Air Force Colonels Davitch and Folker (2017),

stressed that critical thinking is essential to waging modern warfare, characterizing it as a, "core

combat capability" (p. 64), and cite an article by Colonel Adam Stone (2017) which severely

criticized the Air Force PME for its failure to adequately educate and train field grade officers to

develop critical thinking skills. Kelley and Johnson-Freese (2014), both professors at the Naval

War College, observed that all the U.S. staff and war colleges balance a trade-off in focus

between technical education and strategic education, which must be adjusted to properly respond

to new security threats across the globe.

Former CJCS General Peter Pace, in his vision for joint officer development, described

critical thinking as, "those competencies associated with acuity of mind at the highest level –

gained as a result of a continuum of learning across a lifetime" (p. 2). According to Pace (2005),

a critical thinker is one who can recognize patterns in the security environment, is comfortable

with uncertainty and ambiguity, and able to develop innovative solutions within complex

operating environments to achieve desired objectives. Previous to this guidance three years

earlier, Johnson-Freese (2012), criticized the joint staff and the military services for failing to

improve education for intellectual agility and critical thinking and not focusing on the core task

of educating strategists.

A 2014 RAND study of the U.S. Army CGSC reaffirmed that the complex 21st century

security environment requires the U.S. Army education system to develop adaptive and critical

thinking skills (Straus, Shanley, Crowley, Yeung, Bana, & Leuschner, p. xv). Haskins (2009)

explained this need by pointing out that the rapidly evolving future battlefields would require

critical thinking as soldiers would face problems for which the Army had not yet developed

doctrinal solutions. The importance of critical thinking permeates field grade PME and

discussions about developing field grade officers to be competent at the operational and strategic

levels (Allen & Gerras, 2009; Bryant & Urben, 2017; Chambers, 2016; CJCS, 2012, 2105a;

Emilio, 2000; Fastabend & Simpson, 2004; Gray, 2010; Guedes da Costa, 2010; Guillot, 2004;

Hibner, 2016; HQDA, 2012a, 2015; Pace, 2005; Usry, 2004; Williams, 2013). Field grade PME

begins with the Army's CGSC, which has the mission to, "educate and train officers to be

adaptive leaders, capable of critical thinking" (Gruszecki, 2011, p. 18). Addressing the official

military decision-making process (MDMP) that is the foundation of strategy development,

Marine Lieutenant Colonel Floyd Usry (2004), argued that a lack of critical thinking from staff

officers at the CCMDs while employing the MDMP has been a causal factor in military failures

at the operational (theater) level. Marine Lieutenant Colonels Finn and Moore (2018), have held

up the U.S. theater strategy in the Pacific as one such failure, describing it to date as being

"ineffectual" and tending to "appease China" (p. 315).

   A view from the General Officer ranks is provided by former USAWC commandants and

former commanding generals of the Army's TRADOC. Major General Robert Scales,

commandant of the USAWC from 1997 to 2000, argued that reforming PME would require

changing the personnel system to get the right mix of rewards to encourage officers, "to fully

invest themselves in strategic education," or in other words, rigorously participate in ensuring

effective learning and knowledge transfer (Scales, 2010, n.p.). Acknowledging the issue of

academic rigor in PME in his testimony before the House Oversight and Investigations

Subcommittee of the Committee on Armed Services, 111th Congress on July 28, 2009, LTG

Caldwell (then commanding general [CG] of TRADOC) confirmed that the leadership of the

Army's TRADOC recognized the problem and was working to improve rigor in its PME

institutions (HASC, 2009). In 2015, his successor, LTG Robert B. Brown, CG TRADOC,

emphasized in the Army University white paper, that the re-organization of the Army's PME programs into a university system would result in increased academic rigor across the Army School System (Brown, 2015).

The U.S. Army's Center for Army Leadership (CAL) attempted to measure the impact of academic rigor in Army education in its courses and schools via a survey of 16,795 Army leaders in the ranks of sergeant through colonel in 2014. The result of these surveys showed that 57% of all respondents agreed that "course activities and activity assessment were sufficiently challenging to separate high performers from low performing students" (Riley et al., 2015, p. 109). The data was more favorable for field grade PME instruction, but still showed room for improvement, with 64% of CGSC respondents, and 67% of USAWC respondents agreeing with the previous statement (Riley et al., 2015, p. 109). Addressing future surveys on officer PME, the CAL report called for a continued focus on, "the level of rigor or challenge as part of the education" (Riley et al., 2015, p. 108). The topic of academic rigor has enabled writer Thomas Ricks, a vocal critic on the topic of academic rigor of the service staff and war colleges, to compile enough material to write a series of published books and professional journal articles, as well as web postings (and posts by other authors) on the topic of academic rigor in PME on his edited *Foreign Policy* web log (Goldich, 2012; N. Murray, 2013b; Ricks, 2012, 2013a, 2013b).

Instructor Teaching Effectiveness

Criticism of the teaching faculty's instruction at the Army's command and general staff and war colleges has been linked to lower levels of competence with effective strategy formulation of their graduates (Ferguson, 2017; N. Murray, 2013b, 2016; W. Murray, 1986). MG Scales cautioned that an Army absorbed by ongoing overseas contingency operations was "too busy to learn" and risked catastrophic failure in future wars on the scale of British Army

losses on the Western Front in the First World War, if PME reform did not improve the quality

of war college instruction (Scales, 2010). Additional evidence that the quality of instruction may

impact graduate competence in strategy is also found in student surveys (N. Murray, 2016; W.

Murray, 1986). Assessments of student satisfaction with the quality of strategy education at

CGSC (an analogous setting to the USAWC) reported most students were dissatisfied, which

may be an indicator of a performance gap on the part of the faculty (N. Murray, 2013b, 2014,

2016). Colonel Keith Ferguson (2017), a Basic Officer Leader Course instructor with 30 years

of educator experience, faulted Army instructors of having difficulty in breaking the habit of,

"instructor-centric teaching" styles, as the reason why the Army's schools and colleges had not

achieved the goal of changing to a 'student-centric model' as called for in the Army's Learning

Concept spelled out in TRADOC Pamphlet 525-8-2 (2017c, p. 9). This particular criticism has

been identified at the USAWC faculty in the past for teaching, "a curriculum that almost entirely

confuses training with education" (W. Murray, 1986, p. 17). Dr. Nicholas Murray (2013a) a

professor at both the U.S. Navy War College, and the Army CGSC, stated emphatically:

> The Army's Professional Military Education (PME) is broken. The current focus and
>
> methodology of PME does not adequately prepare our officers to think critically. Though
>
> the education provided is, generally speaking, of a good standard it is not focused on the
>
> development of critical thinkers, as required by Congress and demanded by the armed
>
> forces' likely future missions. PME spends too much time indoctrinating officers, rather
>
> than empowering them to think for themselves. (p. 1).

Dr. Murray's criticism is future-focused on the complex security environment of the 21st century,

which demands critical thinking skills and mastery of the strategic and operational arts to

develop effective theater military strategies. The consequences of not improving the strategy

education curriculum could mean defeat on the battlefield, and long-term harm to America's security. As Chapter One made clear, the senior leadership of the Army is asking for improvement in field grade PME, with strategy education as the means for winning (maintaining both peace and security) during the competition phase.

Insufficient Threat-Focused Curriculum

Perhaps the most relevant criticism on the effectiveness of strategy education at the war colleges has 'zeroed in' on whether the content of the curriculum is sufficiently focused on understanding the changing character of warfare and the challenges of the complex 21st century security environment. Forsythe (1992), in his discussion of developmental theory, emphasizes knowledge of the complex strategic security environment as a priority self-development area for Army strategic executives. General John Galvin (1989), stressed that to be effective, a military strategist must know, "the process by which the United States and its allies and potential adversaries formulate their strategies… He has…a fundamental knowledge of the structure, functions, and capabilities of the military organizations of friend and foe," and adds that, "If he is good, he knows his own side intimately and the mind of his adversary as well" (p. 3). A prominent American strategist, Dr. Colin S. Gray (2009), emphasized the importance of understanding the adversary as a component of strategy education:

> [W]herever strategic education may fall short, prominent among the more harmful of its potential areas of neglect would be a failure to emphasize the pervasive importance of the enemy. Underappreciation of the inherently competitive nature of a strategic context probably has been the most damaging source of poor to catastrophic historical strategic performance. (p. 45).

Several writers have addressed the importance for military professionals to learn and understand to the novel forms of warfare referred to as 'Gray Zone' conflicts, hybrid warfare, unrestricted warfare, and the operational concepts, doctrines, and strategies employed by America's likely adversaries, China and Russia, with China employing its 'Three Warfares' Doctrine as part of its overall military strategy, and both China and Russia employing forms of 'Information Confrontation' (Tulak, 2016, 2019; Ashraf, 2017; Hoffman, 2018; Engstrom J., 2018; Farwell, 2019). As educator Jenny Anderson, (2016) observed, "you can't think critically without substantive knowledge" and so students must learn about these adversary concepts, doctrines, strategies and novel forms of warfare as a component of PME (n.p.). Army Colonel John King, a USAWC graduate, theorized in his USAWC Research Report that Army staffs in the future would struggle to find solutions to the complex problem of future hybrid conflicts and may be overwhelmed, passive, and potentially paralyzed, due to the lack of education in the USAWC on the methodology for dissecting these problems and developing strategic and operational solutions (King, 2010, p. 3). To fill this education gap, Chambers (2016), has argued in his work on hybrid warfare and gray zone conflicts that the Army should increase strategy education opportunities, by funding as many as 1,000 master's degrees in strategy at civilian colleges and universities to produce a cadre of strategists capable of countering hybrid warfare and gray zone conflicts (p. 35).

Members of the USAWC faculty have conducted sound research to better understand the gray zone operating environment and hybrid threats that operate within it. According to USAWC professor Nathan Freier, gray zone competition and conflicts are important concerns for security policy and strategy, and, "should pace defense strategy, concepts, and capabilities" (Freier et al., 2016, p. 89). Douglas Lovelace, Director of the Strategic Studies Institute of the

USAWC acknowledged the need to address gray zone challenges, which, "will continue to confound the DoD until it is normalized and more fully accounted for in defense strategy and plans" (in the forward to Freier et al., 2016, p. ix). Freier reported that the U.S. Armed Forces have not developed a sufficient countervailing strategy against hybrid warfare and advocates for a, "more activist and adaptive approach to gray zone challenges" (Freier et al., 2016, p. 89). Furthermore, he concludes that for the CCMDs to effectively confront gray zone challenges and hybrid warfare, they must, "employ new and adaptable concepts, capabilities, and organizational solutions" (Freier et al., 2016, p. xv), and recommended to the DoD to empower the CCMDs to employ more active theater campaign models. Accordingly, these new concepts and organizational solutions should be part of the curriculum of the USAWC.

Identifying Performance Gaps in Strategy Education

This research applies the Clark and Estes (2008) gap analysis framework, which provides a problem-solving model to identify effective solutions to performance gaps through a process of identifying and analyzing whether the performance gap is a result of knowledge/skills gaps, motivation gaps, and/or organizational barriers. As this is an evaluation study, identifying the gaps preventing attainment of the performance goals articulated in DoD, CJCS, and Army regulations and policy will provide the USAWC with potential solutions to close any performance gaps that may be revealed. The previous section pointed to several possible performance gaps across the DoD field grade PME enterprise. Dr. Richard Clark reported that he intended to use the gap analysis framework to evaluate USAWC instruction as part of a TRADOC advisory group study, but the evaluation project was not completed (Clark, 2018). Successful diagnosis of performance gaps is best achieved by interviews, focus groups, and surveys to measure employees' beliefs and perceptions (Clark & Estes, 2008). Accordingly,

this study relies heavily on these two methods to assess USAWC faculty perceptions and beliefs on performance gaps and feasible solutions.   According to Dr. Clark, "… in practice, gap analysis fails (even with good measurement) when people are faced with clear gaps. Nearly everyone refuses to pause and truly analyze the cause of the gap(s). Everyone seems to think they know the cause and in most instances, they do not" (Clark, 2018). The use of surveys and interviews of USAWC faculty provided stakeholder perceptions of gaps, and proposed solutions from their own frame of reference to better enable the USAWC to see and evaluate performance gaps identified during the study.

USAWC Faculty Knowledge, Motivation and Organizational Influences

This section provides a review of the literature focusing on knowledge, motivation and organization-related influences pertinent to the USAWC faculty redesigning its strategy education curriculum by academic year 2020/2021 to improve student outcomes. The outcomes sought in student performance are in support of the proposed organizational goal that by June 2021, USAWC graduates have mastery level skills for the development of effective theater strategies in 3 and 4-Star Headquarters to enable winning in a complex world during 'peacetime' competition campaigning. The new security environment requires strategists who can plan for new and complex threats, now and in the future.

Field grade officers reporting to the USAWC for a year of study will have completed the introductory strategy courses at CGSC and may bring the operational experiences that introduced them to complex security threats in the real world but will not yet have had formal instruction on how to develop a military theater strategy that effectively addresses these threats. The USAWC states that its graduates should be "intellectually prepared to preserve peace, deter aggression and, when necessary, achieve victory in war" (USAWC, 2016a, p. 80). This is precisely why the

strategy education component of the USAWC curriculum must expand to include these new

challenges, to educate the next cohort of graduates to take on these challenges as members of

joint and service headquarters responsible for developing theater military strategies. Knowledge

influences relevant to this study, however, are not just those of the students, but also of the

faculty, who must redesign the curriculum to teach strategy development to effectively respond

to the new security environment.

Conceptual Framework

Clark and Estes' (2008) gap analysis serves as the conceptual framework for this study to

explore what impacts faculty ability to revise curriculum to respond to the 21st century security

environment, and to support field grade officers in achieving mastery level skills in developing

theater strategies. Clark and Estes (2008), explain the three critical factors to identify the causes

of performance gaps, or influences are the knowledge and skills of the people in the

organization,) their motivation to achieve the goal, and organizational barriers that impede goal

attainment. These critical factors are addressed in the following sections.

Knowledge Influences

In order to understand knowledge influences in a comprehensive manner, a review of the

literature reveals four different knowledge types: factual knowledge, conceptual knowledge,

procedural knowledge, and metacognitive knowledge (Ambrose, Bridges, DiPietro, Lovett, &

Norman, 2010; Krathwohl, 2002; Rueda 2011). Factual knowledge, commonly known as facts,

include the discipline-specific terminology associated with a content area. Rueda (2011)

explains these are the details, "one must know to be familiar with, in order to understand and

function effectively or solve problems in a given area" or discipline (p. 28). Conceptual

knowledge includes, "categories, classifications, principles, generalizations, theories, models, or

structures pertinent to a particular area" (Rueda, 2011, p. 28)   Procedural knowledge is

understood as, "knowing how to do something," using the appropriate methods, models,

techniques, rules and methodologies particular to the activity (Rueda, 2011, p. 28) Ambrose et

al. (2010) provide a similar description of procedural knowledge that adds the judgment of

'when,' that is, "knowing how and knowing when to apply various procedures, methods,

theories, styles, or approaches" (p. 18). Metacognitive knowledge is awareness, contemplation,

and knowledge of ones' own knowledge and cognitive processes, and problem-solving processes

(Krathwohl, 2002; Mayer, 2011; Rueda, 2011). While each of these knowledge types will play a

role in the redesign of USAWC curriculum, this study focused on just the conceptual and

procedural knowledge influences.

Knowledge of theater strategy formulation. Joint Publication 5-0, Joint Planning

(CJCS, 2017) explains that, "Geographic Combatant Commanders develop a theater strategy that

addresses the specific application of military resources in coordination with other instruments of

national power in a geographic region" (p. I-5). This is what is referred to throughout this study

as a TMS. The CJCS directs the CCDRs to, "develop a theater strategy for employing 'normal

and routine' military activities in conditions short of conflict to achieve strategic objectives"

(VCJCS, 2018, p. 5). However, the current process is criticized as being too cumbersome to

counter revisionist powers, operating below the threshold of armed conflict via hybrid warfare

(VCJCS, 2018). Robinson et al. (2014) reported a key finding of a 2014 RAND workshop

focused on assessing the U.S. defense and national security policymaking process, that the U.S.

military, "does not have a theory of victory" for campaign planning in the peacetime competition

and deterrence phases, and must do a better job in conceiving and implementing peacetime

theater military strategies (p. 71). This is a procedural type of knowledge USAWC faculty must

have and teach, in order to prepare USAWC graduates to better respond to the 21st century

security environment in the development of effective theater military strategies.

 Knowledge of the novel forms of warfare. To achieve the stakeholder goal, USAWC

strategy education faculty must have mastery level knowledge of the concepts, doctrines,

strategies and forms (types) of warfare being employed by the Russian Federation and the

Peoples Republic of China that characterize the complexity of the 21st century security

environment. USAWC faculty must develop learning objectives in the strategy education

curriculum for USAWC students to achieve the same. This is a conceptual type of knowledge

that covers adversary concepts of war, peace, and peacetime competition, the dividing lines

between these conditions, and how their novel forms of warfare are designed to operate in the

gray zone boundaries in the continuum of war, competition, and peace. A review of the 2016

USAWC Department of National Security and Strategy 100-page Curriculum reveals that the

attention paid to the adversary concepts, doctrines, strategies and novel forms of warfare which

characterize the new security environment discussed in Chapter One may not be sufficient. The

curriculum does specifically address the concept of 'Gray Zone Conflicts,' in Lesson 16: The

Future of War and Strategy, but is otherwise missing (USAWC, 2016a, pp. 69–72). Likewise,

the 56-page curriculum for the USAWC Introduction to Strategic Studies Course, is lacking

mention of any of the adversary concepts, doctrines, strategies, and novel forms of warfare that

make strategy development challenging (USAWC, 2016b). The 100-page USAWC Academic

Year 2018 Theory of War & Strategy Core Course curriculum does mention Hybrid Warfare

three times, but it does not address the other forms (USAWC, 2017e). Strategists and strategic-

level planners must understand the theories that underlie any particular form of warfare before

they can develop effective counter-strategies (USAWC, 2016a, p. 61). The 3 and 4-Star

Commanders of regionally-focused Commands will expect USAWC graduates to arrive armed with the necessary conceptual knowledge of these novel forms of warfare to effectively contribute to developing theater military strategies when they report for duty.

As the Army's declared experts in strategy education, the USAWC faculty need to have mastery level knowledge of these novel forms of warfare to effectively incorporate more time and attention to the subject in a re-designed strategy education curriculum focused on the complex 21st century security environment. USAWC faculty are leaders in the research of the 21st century security environment and the novel forms of warfare that make it so complex. USAWC professors Lai et al. (2018) have acknowledged that USAWC graduates sent to serve at the 3 and 4-Star HQs will be challenged, "to maintain security in a complex region, with emerging powers and gray zone actors, short of traditional war," and to respond to the, "growing need to develop and conduct counter gray zone activities" with supporting plans that execute the theater military strategy (pp. 16 and 20). The USAWC's desired product is, "a national security professional well suited for appropriate mission-specific and persistent roles: prepared for service at the strategic level; able to apply discretionary judgment with respect to the body of military professional knowledge, [and]; well-versed in the application of Landpower" (Lacquement, 2016, slide 10). Service at the strategic level requires mastery level skill in the strategic art to enable winning in a complex world.

Focusing on the linkage of knowledge influences to organizational goals, Rueda (2011) explains that a method to understanding that linkage is to ask, "what does the stakeholder need to know in order to achieve those goals?" (p. 27). The USAWC faculty must have mastery level knowledge of adversary concepts, doctrines, strategies and forms of warfare, as well as theater military strategy development, and implement learning objectives on these topics, if their efforts

to improve the strategy education curriculum are to make it relevant to the new 21st century

security environment that USAWC graduates will face in their following military assignments.

While these topics are presently overtly missing from the published curriculum, it is clear from

the literature review that many USAWC faculty do have mastery level knowledge of the

adversary concepts, doctrines, strategies and novel forms of warfare and operations concepts

presented in Chapter One.

Knowledge of theater military strategy development in the new complex security

environment. Robinson et al. (2014) argue that a, "new normal" of, "irregular and hybrid

warfare, whether conducted by states or nonstate actors, indicates the need for a theory of

success that can serve as a compass for strategy in these conditions, where victory may be

elusive but security solutions remain imperative" (p. 86). This is the purpose of a theater

military strategy – to inform a campaign plan with a theory of victory that will support winning

in a complex world and specifically, "…to win in Phase 0 whenever possible" (Robinson et al.,

2014, p. 100). Reflecting the challenges of the novel forms of warfare, Robinson et al. (2014)

stress that, "developing a theory for victory, that fully accounts for the changed character of

warfare" (p. 97) is an important task for the Army.

In order to prepare USAWC graduates to contribute to the development of theater

military strategies, USAWC faculty must identify curriculum gaps, and implement appropriate

learning objectives for USAWC students to reach mastery level knowledge of developing theater

military strategies, and how to adjust them to respond to the multiple variations and

combinations of the novel forms of warfare that are complicating their effective development.

USAWC students are senior field grade officers who will fill strategic positions in the Army and

the Joint Force and will be the decision-makers in 3 and 4-Star HQs directly confronted with the

challenges of the new security environment of the 'complex world.' USAWC faculty must also develop and implement learning objectives that will educate USAWC students to understand how adversaries have combined (and are likely to combine) these warfare forms in novel ways in future regionally-based likely conflict scenarios, how concepts transfer from one adversary or region to another, and how these issues impact current U.S. theater strategies. This requires conceptual knowledge that will squarely address and prevent the knowledge gap of not being, "prepared to anticipate or solve a novel future challenge" (Clark & Estes, 2008, p. 63).

Dr. Richard Lacquement, the Dean of the USAWC School of Strategic Landpower, provided guidelines for curriculum refinement and improvement to the faculty in 2016, focused on improving the 2017/2018 academic year strategy education curriculum. The guidance applied to the continuing process of curriculum improvement and redesign and includes a list of eight categories of conceptual knowledge required for strategic planners: strategic and operational art, strategic thinking, frame of reference, problem management, strategic decision-making, joint and combined ops, military history, and economics (Lacquement, 2016, slide 13). Of these, the first five are most applicable to strategy education with a focus on developing effective theater military strategies.

Knowledge of curriculum re-design. Based on public guidance and direction from Secretary of Defense James Mattis, former CJCS General Martin Dempsy, CSA General Mark Milley, former Commanding General of TRADOC, GEN David Perkins, and former Commanding General, USACAC, General Robert Brown to the Army Schools to improve PME to enable winning in a complex world, USAWC faculty must be able to set clear education objectives, and to identify and address any gaps of the previous curriculum and any limitations of the existing teaching strategies. The USAWC faculty do assess their collective knowledge

concerning curriculum redesign, as demonstrated by the following questions posed in a book written by USAWC faculty (composed of 11 Chapters in 354 pages), which assessed the teaching of strategy:

- "Do/Can we teach not just an understanding of strategy but the ability to do it? In other words, can we actually better prepare students to formulate and implement strategy, and if so, how?" (Dorff, 2010, p. 4);

- "What is strategy? Why should we teach it? What should we teach? How should we teach it? What should we expect as reasonable and necessary outcomes?" (Dorff, 2010, p. 4);

- "[Were] U.S. strategic shortcomings a function of failures in the PME system?" (Dorff, 2010, p. 6).

The first of these questions is directly relevant to this study.

The literature review in this chapter provides historical examples of curriculum reform in the staff and war colleges that demonstrate it can be done. The USAWC faculty are aware of their limits in teaching strategy, as demonstrated by USAWC Professor Harry Yarger's observation, in his chapter "How Do Students Learn Strategy? Thoughts on The U.S. Army War College Pedagogy of Strategy" where he explains,

> In a typical military academic year at the USAWC, faculty members cannot teach strategy to everyone; nor can most students learn to be strategists proper. Not only is strategy difficult, but the limitations on resources and other legitimate demands on student time are preclusive. (p. 199).

The preceding quote highlights the many competing demands placed on the faculty to make the trade-offs between the overall college curriculum and the need for better strategists and strategic-level planners from each USAWC graduating class.

While the changing character of war imposes new challenges, the USAWC faculty must continue to educate its officer students broadly for irregular, hybrid, and conventional war, as well as nuclear deterrence, while facing constrained resources now and in future budgets (Robinson et al. 2014). However, when it comes to teaching strategy, it makes sense to focus on current problems facing the CCMDs and their supporting Army Service Component Commands. USAWC faculty members Gabriel Marcella and Stephen Fought (2010), provided a simple guideline for how to teach in strategy education by, "introducing the students to the national security threats and challenges facing the nation [and]... require them to come up with creative solutions" (p. 94). The guideline above focuses on application, which is needed if USAWC graduates are to be successful at 3 and 4-Star Headquarters, where there is no time for on-the-job education and the focus of work is improving strategy, and conducting operations and activities that will improve the United States' security posture in the competition phase.

Relevant to the task of curriculum redesign, Krathwohl (2002) also explained that the construction of educational objectives should describe intended learning outcomes in terms of specific subject matter content and, "a description of what is to be done with or to that content" (p. 213). The missing content must be identified for inclusion to achieve the clear goal of what USAWC graduates are tasked to do in the field. Based on best educational practices outlined by Krathwohl, the USAWC curriculum needs to include concrete learning objectives that support stakeholder and organizational goals related to the changed character of war and the new security environment and to student outcomes in performance against the task of developing military theater strategies and campaigning.

Knowledge to redesign curriculum to support application. To respond to identified knowledge and skills gaps, Clark and Estes identify three types of knowledge and skill

enhancements that may answer performance gaps in relation to the organizational and

stakeholder goals, namely information, job aids, training, and, education (p. 58). Clark and Estes

(2008) explain that the first three are required, "when people do not know how to accomplish

their performance goals" and that the final type, education, is required when people, "anticipate

that future challenges will require novel problem solving" (p. 58). The full range of these four

types are relevant to teaching strategy education and as elements of an improved curriculum.

The information component that may be required is the evolving body of knowledge on

adversary concepts, doctrines, strategies, and novel types of warfare that are currently lacking

emphasis in the USAWC strategy education curriculum. The next type, job aids, also applies,

and could take the form of process and planning model steps, and concept models for identifying

the various elements of the novel forms of warfare for quick identification in the field in their

various combinations. Likewise, training is an applicable enhancement, and would include a

focus on the procedural and technical competencies necessary to navigate U.S. policy processes,

interagency processes, the joint strategic planning system, operational design strategies, and the

joint operations and planning process (CJCS, 2017; Lacquement, 2016,). As the USAWC

features the seminar model of instruction, and conducts staff exercises, there are also

opportunities to provide both guided practice and corrective feedback, which Clark and Estes

(2008) highlight as being important components of knowledge enhancement (pp. 58 & 59).

Table 2 provides a summary view of the knowledge influences discussed in the preceding

paragraphs accompanied with a description of the knowledge types.

Table 2

Assumed Knowledge Influences and Knowledge Types

Assumed Knowledge Influence	Knowledge Type
K1: USAWC strategy education faculty must have mastery level knowledge of the novel forms (types) of warfare being employed by the Russian Federation and the People's Republic of China.	Declarative (Conceptual)
K2: USAWC strategy education faculty must have mastery level knowledge of <u>theater strategy formulation</u> and current challenges to prepare USAWC graduates to effectively contribute to this task at 3 and 4-Star HQs.	Procedural
K3: USAWC faculty must have mastery level knowledge of <u>theater military strategy execution</u>, <u>and</u> how to adjust them in execution (campaigning) to respond to the multiple variations and combinations of the novel forms of warfare that are complicating the development of military theater strategies that work.	Declarative (Conceptual)
K4: USAWC faculty must be able to identify and address the strategy education learning objective gaps in the current syllabi and supporting readings, activities, assignments and assessments.	Procedural
K5: USAWC faculty need to know how to design curriculum with the right learning objectives, that advances the learners' ability to apply the knowledge and skills learned, supported by practice strategies for effective knowledge transfer.	Procedural

Motivation Influences

In addition to knowledge, motivation is a key influence on performance (Clark & Estes, 2008). Ambrose et al. (2010) explain that motivation can be understood as the investment one makes, "in reaching a desired state or outcome" (p. 68). Analyzing a stakeholder's motivation influences may reveal motivation causes of performance gaps in relation to accomplishing the stakeholder goal. There are three types of indicators of motivation: active choice, persistence, and mental effort (Clark & Estes, 2008). Clark and Estes (2008) explain these terms thusly:

active choice occurs when a person makes a choice, or defers making a choice, to pursue a goal; persistence is the ability to avoid distractions and concentrate their attention on the goal; and mental effort is the deliberate decision-making process on how much effort to be expended on the goal.

Underneath the motivation indicators examined above are psychological constructs such as value, self-efficacy and goal-setting. A review of the literature identifies several motivation-related constructs applicable to USAWC faculty efforts to redesign strategy education curriculum to improve student competence in development of theater military strategies to 'win a complex world.' The applicable motivation theories are self-efficacy theory, expectancy-value theory, and goal orientation theory.

Self-efficacy theory. Self-efficacy theory encompasses one's personal beliefs, expectations about one's capability to organize and implement (agency), as well as the actions necessary to achieve or perform at designated levels (Rueda, 2011; Hirabayashi, n.d.). One of the main principles of self-efficacy theory is that high self-efficacy can positively influence motivation (Hirabayashi, n.d.). Self-Efficacy is predictive of the three motivation indicators of choice persistence and mental effort and is especially important when undertaking complex and difficult tasks (Rueda, 2011). There are two types of efficacy: individual self-efficacy (this includes instructor self-efficacy) and collective self-efficacy. Instructor or teacher self-efficacy is when a teacher believes in his or her own ability to guide their students to success. Research suggests that teachers with a strong sense of self-efficacy tend to be better planners, more resilient through failure, and more open-minded and supportive with students (Zee & Koomen, 2016). Collective efficacy is when a staff of teachers believe that together they can inspire growth and change in their students. According to John Hattie, collective teacher self-efficacy is

the second most effective tool in improving student performance (Killian, 2017). Collective self-efficacy is applicable to the stakeholder group of focus for this study, the USAWC faculty. According to Self-Efficacy theory, organizations will be more active, effortful, and effective when they are confident in their ability to complete tasks successfully (Denler, Wolters, & Benzon, 2010). Organizations and stakeholder groups with high self-efficacy will choose difficult tasks, expend greater effort, persist longer, use more complex strategies, and experience less fear and anxiety (Hirabayashi, n.d.)

As the USAWC faculty responds to the Army's goal of improving Army PME to win in a complex world, it needs high collective, organizational self-efficacy in its ability to improve USAWC strategy education curriculum for strategy education. High self-efficacy will enable the instructors to engage and persist at improving the curriculum that is designed to develop strategists who can formulate winning theater military strategies that acknowledge and successfully counter the novel forms of warfare characterizing the 21st century security.

Expectancy-value theory. Eccles' (2006) expectancy-value theory explains how individuals make choices to engage in tasks based on the perceived value associated with achieving a task, and their competency beliefs to achieve it. Essentially, expectancy-value theory explains that an individual's or organization's expectancy of outcomes and values are influenced by task-specific beliefs such as level of competence to accomplish the task, and perceptions of the difficulty of the task (Eccles, 2006; Eccles & Wigfield, 2002). Dembo and Seli (2016) explain that values and interests play an important role in behavior and choices of activities, level of effort, and persistence that an individual will put forth on a task or assignment. The value component addresses the individual's perceived value of task accomplishment. This theory involves different types of values: intrinsic value, attainment value, utility (instrumental)

value; and cost value or cost belief (Ambrose et al., 2010). Intrinsic value represents the

satisfaction that one gains from doing the task; attainment value represents the satisfaction

obtained from achieving mastery and accomplishing a goal or task, and utility value represents

the obtaining extrinsic rewards (e.g., praise, public recognition, promotions, high status jobs)

(Ambrose et al, 2010). Cost value, or cost belief is conceptualized in terms of the perceived

amount of effort needed to succeed, cost of the emotional investment, performance anxiety, fear

of failure, loss of time, energy and other opportunities available (Eccles, 2006; Eccles &

Wigfield, 2002; Hirabayashi, n.d.). Applying this theory, the USAWC faculty must appreciate

the return on investment, or value, of a redesigned strategy education curriculum that better

prepares USAWC graduates to address the novel forms of warfare posed by adversaries that

characterize the 21st century security environment as they contribute to developing effective

theater military strategies.

   Goals and mastery orientation. Dembo and Seli (2016) explain that goals enhance

performance in several ways: determining level of effort and persistence, focusing attention,

conducting the strategic planning necessary to proceed, and providing a reference point for

assessing progress. This is relevant to the USAWC faculty as they go about revising the

curriculum and set goals both for student performance in developing strategy to respond to the

21st century security environment, and to respond to the many tasks and directives senior Army

leaders have assigned to the Army University. As the USAWC faculty examine how these tasks

and directives to improve PME can be achieved in the strategy education curriculum, they must

establish clear goals to accomplish the tasks and directives outlined in Table 1. Student learning

objectives and performance goals should link student understanding of the characteristics of the

complex security environment, to include adversary concepts, doctrines, strategies, and forms of warfare, to improved job performance in the 3 and 4-Star Headquarters.

Goal orientation theory addresses the reasons or purposes for setting goals, which fall into two types: mastery and performance (Dembo & Seli, 2016). According to Brooke (2012), a mastery goal orientation is focused on learning and improvement, while performance goal orientation refers to a focus on demonstrating competence relative to others. While the USAWC has been tasked to improve how it is educating its students, and must comply (performance orientation), the character of warfare is evolving and changing at an increasingly rapid pace, which means that the USAWC faculty will need to keep field grade PME relevant apace with the changing security environment.

Researchers have identified that a mastery-oriented individual and organizational focus indicates a greater likelihood of success (Dembo & Seli, 2016; Eccles, 2002). Research by Brooke (2012) showed that students who learned in a purely mastery-oriented environment (school setting) maintained these, "adaptive motivational patterns" (mastery orientation) even after returning to a work environment characterized by performance-oriented goals (n.p.). Svinicki (2010) proposed that when instructors model a mastery goal orientation in the classroom, students are more likely to adopt it. This theory applies to the efforts of the USAWC faculty as they set goals for improving curriculum, as well as student learning objectives, to achieve the Army goal of improving Army PME to 'win in a complex world' and produce graduates who have mastery level knowledge and skills to develop theater military strategies. The very process of undertaking goal-setting is one way to enhance efficacy and task accomplishment (Dembo & Seli, 2016).

Table 3 below provides a summary view of the motivation influences discussed in the preceding

paragraphs accompanied with the associated motivation construct.

Table 3

Assumed Motivation Influences and Knowledge Types

Motivation Construct	Assumed Motivation Influence
Utility Value	USAWC faculty need to see utility in redesigning the strategy education curriculum to respond to the 21st century security environment to support Army goal of 'winning in a complex world.'
Self-Efficacy	USAWC faculty, as a group, should have individual and collective organizational efficacy in theater strategy content and instructional or curriculum redesign to improve strategy education in support of the Army Operating Concept.
Attainment Value	USAWC faculty should see redesigning the curriculum to respond to 21st century security environment as a core component of their role as faculty in preparing student success.
Cost Value	USAWC faculty should see redesign efforts as not too costly in terms of time and non-competitive with their current instructional load

Organizational Influences

In addition to knowledge and motivation influences, the organizational aspect is critical

to understanding performance gaps that stem from the organization itself. Organizational

performance gaps can contribute to failure to achieve the organizational goals.   According to

Clark (n.d.), organizations, schools, and agencies are specific types of cultural settings and are

characterized by one or more cultural models. Culture and context are key factors that need to be

understood in order to manage learning and performance outcomes (Clark, n.d.; Seli, 2018). The

influences of culture and context can either positively or negatively impact individual outcomes

(Rueda, 2011). Rueda (2011) discussed the concept of organizational learning, which refers to,

"the ways in which organizations (as opposed to individuals" learn and adapt to challenges and

changes in in the environment" (p. 53). Rueda (2011), observed that even when everyone in an

educational institution, "knows what, when, and why they are supposed to do something to achieve the organization's goals, and even when they are highly motivated to do so, there are things about the organization itself that impede their performance" (pp. 51 & 52).

N. Murray (1999), proposed that military culture, important for unit effectiveness, may also be the most important factor for military innovation and, "preparing military organizations for the next war" (p. 27). Winslow (2000), asserts that a key cultural characteristic of the Army is that it systematically looks introspectively, "to address and resolve the challenges of maintaining or improving its professional war fighting competence" (p. 23). Lewis (2006), states that the Army's culture, "does not facilitate leader competencies required in strategic-level joint organizations very well" (p. 2). As the USAWC undertakes efforts to support the Army goal of 'winning in a complex world' and responding to the new 21st century security environment, it is important to understand how organizational influences, such as military culture, may impact attainment of that objective.

Impact of organizational culture on goal attainment. Clark, (video presentation, n.d.), addresses the difficulty that many organizations have in setting and communicating clear and measurable goals, and explains that this is often due to mixed or conflicting messages that create confusion about what the goals are, and their prioritization (slide #9). This is relevant to the Army War College setting clear goals to accomplish the tasks listed in Table 1. Johnson-Freese (2013) observed that all of the U.S. War Colleges needed to set clear goals for improvement, and implement the necessary processes and practices to support them. Gallimore and Goldenberg (2001) propose that an organization's culture can be analyzed based on the concepts of cultural settings and cultural models, which may have effects on performance and goal achievement. Cultural models are the shared perceptions of how the organization carries out its purpose,

executes operations, or conducts business, and includes shared ways of perceiving, thinking, and

storing possible responses to adaptive challenges and changing conditions (Gallimore &

Goldenberg, 2001). Cultural models are aspects of an organization's culture that may support or

conflict with the observable and known organizational policies and procedures, and which

comprise the values, beliefs and attitudes that are largely invisible and automated (subconscious)

behaviors (Schein, 2004; Seli, 2018). Schein (2004) provides numerous examples of where the

extant culture model can resist senior leader directives to move in a new direction, demonstrating

that organizational culture can be an obstacle to achieving organizational goals. Likewise, Clark,

(n.d.), explains that difficulties in achieving new goals are often due to "organizational

resistance," and the challenge for the leadership is to "change people's minds and beliefs so they

are open to new things" (video presentation, slide 26). On the other hand, Schein (2004),

explains that establishing a culture that supports organizational goals is, "necessary for effective

performance, and that the stronger the culture, the more effective the organization" (p. 7).

Research points to the relationship between cultural models and organizational goals, in

that the models can either support or impede attainment of organizational goals (Gallimore &

Goldenberg 2001; Schein, 2004). Organizational policies and bureaucratic structures hidden in

organizational culture models, can also be, "a hindrance to improved performance and meeting

goals, even when people are knowledgeable and motivated to achieve the goals" (Gallimore and

Goldberg, 2001, p. 59). The following sub-sections examines Army culture to reveal possible

culture influences on USAWC attaining its performance goal.

Army culture. Multiple organizational cultures exist within the DoD, and also within

the Army (HQDA, 2012a, p. 5-4), nevertheless, there is a common culture that is ingrained from

the very first days of basic training or officer training, which reinforces the importance of the

chain of command, executing orders without question, and to discipline oneself to remain

effective in situations of danger, hardship, and extreme stress (Halvorson, 2010). Using Schein's

(2004) stratification of culture explained above, artifacts of Army cultures include oaths, creeds,

songs, uniforms, unit heraldry, ceremonies, jargon, traditions, regulations, doctrine, policies,

tactics, techniques and procedures (Gerras, Wong, and Allen, 2008). Foremost among these

artifacts would be the seven core Army values of loyalty, duty, respect, selfless service, honor,

integrity, and personal courage, which soldiers remember via the pneumonic device "LDRSHIP"

(Halvorson, 2010). Second would be the warrior ethos, which refers to the professional attitudes

and beliefs that characterize the American soldier. The four points of the Warrior Ethos are that

a soldier will, "always place the mission first…never accept defeat…never quit…[and] never

leave a fallen comrade" (ARP 6-22, pp. 3-4). The warrior ethos is incorporated into the soldier's

creed that every new recruit must be able to recite on demand, in which every soldier reaffirms,

"I stand ready to deploy, engage, and destroy, the enemies of the United States of America in

close combat" (HQDA, 2012a, p. 3-4). The warrior ethos and soldier's creed are the foundations

of values, norms, and beliefs within Army culture. The key to fulfilling the soldier's creed is

individual discipline, within a highly disciplined and hierarchical working environment, which is

the foundation of how the Army functions (HQDA, 2012a). This study explores how Army

culture, and USAWC's own culture, impacts USAWC efforts to set and accomplish goals to

improve strategy education PME curriculum to prepare leaders for the complex 21st Century

security environment.

      Army and USAWC cultural influences impacting goal attainment. As doctrine and

the character of warfare has changed, military culture has changed with it to provide the

foundations for individual and organizational success. Army Colonel Haskins (2009), recorded

how Army culture evolved after the Vietnam War to prepare soldiers and leaders for victory

against the Warsaw Pact in the anticipated Third World War on the future battlefields of Europe.

He also argued that during the Global War on Terror, the Army had to encourage

experimentation with new ideas and abandon the existing Cold War orientation, as being no

longer relevant to achieving victory on the future battlefields of the 21st century security

environment. Reinforcing this idea, Army Regulation 600-100, *Army Profession and Leadership*

*Policy (*AR 600-100, 2017), explains that Army culture, "promotes and rewards mental agility,

the ability to break from established paradigms, recognize new patterns or circumstances, and

adopt new solutions to problems" (HQDA, 2017a, p. 2). Regarding doctrine, training, and

education, the Army's 2015 Vision statement calls for a culture of learning that promotes

experimentation with new ideas unshackled by doctrine, to find solutions to complex problems

and to seize unforeseen opportunities (HQDA, 2015a). The strategic vision for Army University

is to be, "a premier learning institution preparing the best leaders in the world to win in the future

security environment" (Perkins, 2015, p. 3).

However, within the Colleges of the Army University, Army norms and values can

potentially have a negative impact on learning. As an example, the Army values of loyalty and

teamwork can work at cross-purposes to critical thinking where various points of view are

examined for flaws, which applies to group settings like the seminar teaching model employed at

the USAWC. Disagreement can be seen as bickering that harms team cohesion, and for some

senior officers, it can be seen as disloyalty (Williams, 2013). In a paper published by the Army

War College, Pierce (2010), explained that Army culture at times prevented Army personnel

from exercising, "the excellent professional skills that are being taught via the Army's formal

professional development programs" in the organizations they served (p. v).

In a study on the Army's Officer Professional Management System (OPMS), Army Colonels Bryant and Urben (2017), found that 16 years of continuous warfare in Afghanistan and Iraq had created an unseen culture model that was at odds with Army PME goals for mastery of strategy (p. 3). According to Bryant and Urben, the need for mastery in tactical operations of the ongoing conflicts had resulted in a culture and professional management system that stunted the strategic development of future senior leaders and emphasized tactics over strategy, resulting in a loss of appreciation of the necessity for mastery of both tactics and strategy at the senior levels (2017, p. 3). Likewise, Lieutenant Colonel Ogden (2017) identified culture models across the U.S. military that hindered the development of strategic leaders (p. 46). Specifically, Ogden (2017) cited flaws in an OPMS that emphasized time in the field over developing competency at the strategic levels, and PME that exalted tactical versus strategic skills (p. 47). Two years earlier, Eliot Cohen (2015), a professor of strategic studies, in his testimony before the Senate Armed Services Committee, referenced these same trends when he stated that the U.S. war colleges were failing to create strategic thinkers from across the services, and that officer PME produced tacticians at the expense of strategic thinkers focused on modern warfare (p. 6).

Amplifying the need to focus strategy education on modern warfare, Ogden (2017), cites Lieutenant General David Barno, who has pointed out that the U.S. PME curricula fails to implement evolving concepts, such as the novel forms of warfare characterizing the 21st century security environment, and has largely ignored, "the evolving threats in the world" (p. 51). Gerras et al. (2008) reinforce this, as they asserted that senior Army leadership must assess whether Army culture is an impediment to meeting the demands of the current security environment, which includes field grade PME. Army culture models impact teaching efforts to develop critical thinking skills needed to understand the novel forms of warfare that characterize

warfare and competition. Ogden (2017) identified culture models in Army PME that unintentionally short-changed the development of critical thinking skills, and further elaborated that the faculty in the Army's academic institutions taught critical thinking concepts, but failed to provide sufficient practice to instill a mastery of how to apply them (p. 48).

USAWC faculty members Wong and Gerras (2015) examined how Army organizations are responding to a deluge of tasks in the lane of education and training management – the two authors observed:

"[I]t has been fairly well established that the Army is quick to pass down requirements to individuals and units regardless of their ability to actually comply with the totality of the requirements, there has been very little discussion about how the Army culture has accommodated the deluge of demands on the force" (p. ix)

This observation is relevant to the many tasks assigned by senior Army leaders and regulations outlined in Table 1 that affect the Army War College.   Wong and Gerras (2015) found that in many cases, multiple tasks competed for the time and attention of Army leaders, resulting in sub-optimal mission and task accomplishment.   With so many demands, the USAWC faculty must be provided the necessary time and other resources to effectively carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'

USAWC culture settings. Culture is revealed, or created in activity-centric settings, which are, "those occasions where people come together to carry out joint activity that accomplishes something of value to the organization" (Gallimore & Goldenberg, 2001, p. 47). Clark (n.d) explains that cultural settings, also known as 'activity settings' provide local, organization-specific context. Researchers have found evidence that aspects of the cultural setting, or social context, of an educational institution can be a major influence on

accomplishment of performance goals (Rueda, 2011; Schein, 2004; Winslow, 2000). The

concept of organizational learning then can be applied to USAWC's response to the TRADOC

and USACAC tasks to improve PME to respond to the challenges of the 21st century security

environment and the need to win in a complex world. The literature review did not reveal any

specific cultural settings at the USAWC that would impede USAWC faculty from improving

strategy education. Faculty interviews focused on uncovering these settings.

Table 4 below provides a summary view of the organizational influences discussed in the

preceding paragraphs accompanied with the associated organizational influence category.

Table 4

Assumed Organizational Influences and Influence Categories

Organizational Influence Category	Assumed Organizational Influences
Organizational Cultural Settings	USAWC must establish goals, policies and procedures in line with achieving the Army goal of 'winning in a complex world' (reinforce a culture model that embraces change to modify learning objectives, instructional design, and content focused on theater strategy development for the 21st century security environment).
Organizational Cultural Settings	USAWC must provide resources and reduce obstacles, to Faculty efforts to carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'
Organizational Culture Settings	USAWC must consistently communicate clear organizational goals to achieve Army goals of 'winning in a complex world,' and USACAC goals of improving PME to respond to the 21st century security environment.

CHAPTER THREE: METHODS

Purpose of the Study and Questions

The purpose of the study is to identify performance gaps preventing the USAWC from developing curriculum that supports the Army Operating Concept, 'win in a complex world' by providing strategists and strategic planners to 3 and 4-Star Headquarters, where the U.S. military confronts adversaries employing complex and novel forms of warfare in the competition phase. The research sought to answer the following questions, identifying the knowledge and skills, motivation, and organization influences to evaluate how well the USAWC is improving strategy education to support the Army Operating Concept of 'Winning in a Complex World,' and complying with Army directives outlined in Table 1:

1. To what extent has the Army War College modified the strategy education component of the USAWC curriculum in response to adversary concepts, doctrines, strategies and novel forms of warfare characterizing the 21st century security environment known as the 'complex world'?

2. How can the current curriculum be improved better support the requirements of the geographic combatant commands who are confronted with the new complex security threats?

3. What are the outlines and requirements for future modifications of the curriculum to better prepare USAWC graduates to develop theater military strategies in 3 and 4-Star HQs?

4. What is the feedback mechanism for USAWC graduates in 3 and 4-Star HQs to continuously improve the strategy education curriculum to improve USAWC graduates competency in developing theater military strategies?

5. What are the faculty knowledge, motivation and organizational influences that are

   preventing full accomplishment of Strategy Education Goals to prepare students to

   develop theater military strategy for the challenges of the complex security threats of the

   21st Century?

In addition, the research provided useful information to the following questions from the

USAWC 2016-2017 KSIL, which asked potential researchers to, "examine how the Army can

better prepare senior Army leaders to effectively contribute to national strategy (NSS, NDS,

NMS) development. How can we adjust officer development to prepare leaders to apply the new

Army Operating Concept, specifically, to 'win in a complex world'?" (Troxell, 2016, p. 10).

Furthermore, the research provided useful information to the question posed by USAWC faculty

in 2010, "Can we teach not just an understanding of strategy but the ability to do it? In other

words, can we actually better prepare students to formulate and implement strategy, and if so,

how?" (Marcella & Fought, 2010, p. 4).

Participating Stakeholders

While a complete performance evaluation would focus on all three stakeholder groups,

for practical purposes a single stakeholder group was selected for this study to limit the study.

According to Johnson and Christensen (2015), qualitative researchers must first decide which

populations are relevant to the research focus (p 269). The stakeholder population of focus

selected for this study is the faculty of the USAWC directly participating in the instruction of the

strategy education component of the USAWC curriculum. Of the 130 members of the USAWC

faculty, approximately 53 are primarily engaged in strategy education, although all departments

have a supporting component. The stakeholder group of focus is divided among five

departments: 34 are assigned to the Department of National Security and Strategy, two are

assigned to the School of Strategic Landpower, two are assigned to the Defense Strategy Course, and five are assigned to Strategic Concepts and Doctrine (USAWC, 2018a). These 43 faculty are directly engaged in strategy education. Another 10 faculty members are assigned to the strategic research department, with interest in strategy education, which provided the research requirement mentioned in Chapter One. These 53 faculty members then formed the primary pool of stakeholders most relevant to the focus of this research, although other faculty with clear roles in teaching strategy may also be considered.

According to Merriam and Tisdell (2016), purposeful sampling is based on the premise that the researcher, "wants to discover, understand, and gain insight, and therefore must select a sample from which the most can be learned" (p. 96). The selection criteria for participants in this study was intended to identify faculty members with significant experience with either strategy education or strategy research, who are thoroughly familiar with the current USAWC curriculum, as well as past faculty efforts made to improve it. The selection criteria also focused on selecting faculty members thoroughly versed in USAWC's teaching strategy employed to educate students with the concepts necessary to successfully perform as strategists in the 3 and 4-star joint force and service component headquarters responsible for developing theater strategies, or at the joint and service HQs to contribute to the development of national-level strategies.

Survey Sampling Criteria and Rationale

In conducting surveys, all 53 faculty members engaged in strategy education or strategy research met one of the necessary criteria below:

Criterion 1. Actively engaged in teaching the strategy education components of the Curriculum, or

Criterion 2. Currently serving in the Strategy Research department, where expertise on real-world strategy development is an obvious prerequisite for effective research on current problems.

Survey Sampling Strategy and Rationale

I conducted a census sampling of that portion of the faculty who are engaged in either strategy education or research. This approach fits the "purposeful selection" selection strategy I wish to follow by bounding the population of interest. These 53 faculty members formed the census sample of the stakeholder group of focus, the experts on strategy education. Johnson and Christensen (2015), explain that purposeful sampling is characterized by the researcher specifying the characteristics of the population of interest, and selecting participants who have those characteristics (p. 264).

Research on Army organizations requires an Army sponsor, and my research was sponsored by BG Mark Odom, Director of Concept Development and Learning, Army Futures Command, who assigned project oversight to the Future Warfare Chief, COL Chris Rogers (TRADOC, 2018a). With sponsorship secured, the USAWC Deputy Provost, Dr. David Dworak, committed to providing administrative support for research, allowing interviews with up to 25 faculty and observation of resident and non-resident instruction (USAWC, 2018o). Subsequently, Dr. Dworak announced the study to the USAWC faculty via e-mail that I had been approved for on-site research. The Deputy Provost's introduction e-mail was used as the basis for requests for individual interviews. The Army Research Institute approved the survey, (assigning a survey control number of DAPE-ARI-AO-19-20) for dissemination as an MSWord document or via hard-copy (Simmons, R., 2019).

During execution, participation was based primarily on availability of faculty able and willing to participate in the survey, and likewise for interviews and classroom observations. A total of 17 faculty were interviewed, more than twice the original goal. The survey was intended to provide a baseline of faculty views on the importance of addressing the adversary concepts, doctrines, strategies and forms of warfare, and appreciation about how the USAWC understands the current security environment, and how well students can recognize these in the real world. The surveys were intended to be completed before the on-site visit, but this was not possible without ARI approval of the survey. While the survey was for the most part executed after the interviews, the findings were no less useful.

<p style="text-align:center">Interview Sampling Criterion and Rationale</p>

As the potential interviews were to be conducted with 'information-rich participants' for deep study of the problem, and due to the challenges associated just one week's time on-campus, two criteria were developed to select interview candidates as follows.

Criterion 1. At least three years of experience with strategy education or strategy research as faculty of the USAWC. As Chapter One explained, the security environment has worsened over the last 10 years, and there have been efforts over that time to review the curriculum, if not to modify it, to meet these new challenges. This criterion ensures some familiarity the recent evolutions of course design, curriculum and organizational changes, and faculty development programs at the USAWC that bear on the quality of strategy education.

Criterion 2. Familiarity with the adversary concepts, doctrines, strategies and forms of warfare characterizing the new 21st century security environment. The crux of the research problem is how to improve strategy education to provide strategists to contend with adversary strategies of peacetime competition in regional theaters. Expertise in the novel adversary forms

of warfare and their impact on the 3 and 4-star joint force and service component commands in the geographic AOR bear on the relevance of USAWC strategy education to these commands.

In execution, these criteria proved too restrictive, as the military faculty are assigned to the college for a tour of duty, and come from a variety of professional backgrounds.

Interview Recruitment Strategy and Rationale

As the requirement for this research was published by the USAWC faculty in the academic year 2016/2017 KSIL (Troxell, 2016), I anticipated cooperation and support from the USAWC Provost and administration in gaining access to faculty for interviews. I employed a purposeful sampling strategy for interviews, but also employed a recruiting strategy of convenience, based on availability of faculty as their work schedules permit time for interviews during the limited time on-campus. Using the Deputy Provost's e-mail of introduction, I emailed individual teaching and research faculty members who comprised a subset of the survey sample. I also employed a strategy of 'network sampling,' leveraging my network of contacts at Carlisle Barracks to arrange initial introductions and interviews, and asking to be referred to qualified candidates. Merriam and Tisdell (2016), describe network sampling (also known as 'Snowball' and 'Chain' sampling) as the practice of asking current participants or candidates meeting the selection criteria to refer other potential qualified participants (p. 98). I relied on this method to ensure that I interviewed faculty meeting the criteria described earlier.

Observation Sampling Criterion and Rationale

My initial criterion for observation, was to observe instruction of strategy education carried out by faculty in any of the following four departments: Department of National Security and Strategy, the School of Strategic Landpower, and the Strategic Concepts and Doctrine

Department. In execution, the inter-connected nature of strategy education meant that actual

instruction of the strategy education curriculum extends beyond these four departments. The

purpose of classroom observation was to find useful information relevant to the problem of

practice, to assess strategy education vis-à-vis the proposed organizational goal.

Observation Sampling (Access) Strategy and Rationale

The sampling strategy for observation was one of convenience to obtain as much as the

class schedules would allow during the one-week campus visit. According to the USAWC

Department of Distance Education strategy education curriculum, online lectures that could be

observed remotely are not offered, which meant that all observation would need to be done on-

campus (USAWC, 2017d). According to Samkian (2018), for an observation program focused

on in-class instruction to be considered sufficiently rigorous, it must meet the standard of at least

six hours of observation per instructor observed. Accordingly, I did not rely on observations as

the main source of findings, as I could not meet this standard, which would require follow-on

visits to the USAWC campus to do so.

The objective of the planned and conducted observations was to facilitate triangulation of

findings from the surveys and interviews, as they demonstrate how the curriculum is carried out

in practice. Merriam and Tisdell (2016), explain that triangulation involves the use of multiple

data collection methods; multiple sources of data (e.g. document analysis and interviews) (p.

245). Likewise, J. Maxwell (2013) explains that triangulation is, "the use of different methods as

a check on one another, seeing if methods with different strengths and limitations all support a

single conclusion" (p. 102, see also Merriam and Tisdell, 2016, p. 245). My initial goal was to

observe the classroom instruction of an interview respondent, in order to build on the rapport

established during the interview, and I was able to interview all faculty observed teaching.

Data Collection Plan

Following completion of the USAWC IRB process, I had planned to conduct document analysis not later than early September with the support of the Curriculum Review Committee, USAWC librarian, and the USAWC SSI Chairman of Research. However, this level of support first required that my research was sponsored by an Army Command with the approval of at least a Brigadier General. Accordingly, I was only able to conduct research on open-source documents, and did not collect any proprietary USAWC documents until my arrival on campus on 10 December 2018.   I had planned to carry out survey online, simultaneously with document analysis, in order to have as much time as possible to assess how responses might influence the interview guide in terms of developing additional probing questions. This was not possible, as the survey also required review and approval by the Army Research Institute, contingent on having a research sponsor. The interviews and classroom observations did occur as planned during the on-campus visit at Carlisle Barracks PA.

I planned my on-site visit to occur during the November/December timeframe in order to observe courses providing instruction in the development of strategy, in particular theater military strategy and campaign plans. The National Security Policy and Strategy Course, which explores and evaluates U.S. military ways and means to connect operational efforts to strategic ends (policy aims) through the application of joint doctrine, translated into theater strategies and campaign plans to conduct joint, unified, and multinational operations. The course usually runs for four weeks from final week of October through the third week of November (USAWC, 2017c). The first two blocks (the Combatant Commander and Operational Art and Theater Strategy and Joint, Interagency, Intergovernmental, and Multinational operations (JIIM)), of the Theater Strategy and Campaigning Course run from last week of November through the first

week December, with theater military strategies being addressed on just one day in December

(USAWC, 2017d). This course explores the concepts of theater military strategies and campaign

plans to include joint, unified, and multinational operations. These three courses represented the

best opportunities to observe strategy education and theater military strategy instruction.   In

order to ensure a focus on theater military strategies, I planned for the on-site research to occur

during the latter half of November and early December in order to observe appropriate

instruction on theater military strategy development.

Data Collection and Instrumentation

Data collection was intended to begin with document analysis of USAWC documents not

publicly available, but this also required formal support from the USAWC, contingent on having

a research sponsor, and so the actual execution was document collection, interviews and

classroom observations, followed by a survey. Despite the compression of these research efforts,

I was able to optimize the 'time on the ground' available to collect data that directly supported

the research questions. All four methods required approval by the USAWC. Each of these

methods provided a complementary set of data that facilitated triangulation, fact-checking, and a

richer description of the selected stakeholder's experiences in their efforts to accomplish the

organizational and stakeholder group goals. The following paragraphs provide amplifying

discussion on the approach taken and results for each data type.

Surveys

The complexities of the new security environment in the peacetime competition phase are

caused primarily by the concepts, doctrines, strategies, actions, and forms of warfare, designed

and carried out by our adversaries in their theater military strategies to counter our own. Our

adversaries' use of hybrid warfare is a demonstration of the principles of General Sun Tzu of

Imperial China, who stated, "the highest form of Generalship is to conquer the enemy by strategy," and that victory is achieved by attacking or countering the enemy's strategy, which stems from knowing how he fights and developing a strategy that exploits his weaknesses (Lo, Lo, Shun-Te, 1991, pp. 67, 71–72).[1] Improving strategy education, and student performance outcomes developing military theater strategies in the field must therefore start with an understanding these novel forms of warfare and how our strategy development must be modified to account for them.

Surveys can provide useful measurement from self-assessment of how well, and how much the USAWC faculty understands and is teaching these forms of warfare. As mentioned previously, my plan was to conduct a census sampling of the entire set of the USAWC faculty engaged in strategy education with a goal of 65% participation rate (or 35 respones) . This group is composed of the teaching faculty executing the strategy education curriculum, and the research faculty, conducting strategy research to understand the current security environment through the lens of strategy development. My approach employed the concept of determining topic boundedness by target respondent population (Merriam & Tisdell, 2016, p. 39), and bounded the population who would be able to provide the most meaningful answers, namely, the faculty engaged in understanding, researching, and teaching strategy.

The survey questions addressed USAWC faculty appreciation of adversary concepts, doctrines, strategies and forms of warfare that characterize the complex world, the degree to which the faculty think they are covering this in their current instruction, and how they associate these new challenges to current difficulties experienced by the 3 and 4-Star HQs tasked to

---

[1] In Section III, Attack by Stratagem, of his timeless treatise *On the Art of War*, Sun Tzu wrote: "If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle."

develop military theater strategies. The survey was intended to provide a broader view across the strategy education faculty relevant to knowledge and organizational influences to understand both if and how adversary concepts, doctrines, strategies and forms of warfare are addressed in field grade strategy education. The survey was originally planned to be provided entirely via an online survey platform (such as Qualtrics and Survey Monkey), but Army Research Institute requirements for online surveys required use of survey software programs with a current Army Certificate of Networthiness (CoN). Unfortunately, at the time of the survey approval in December, no online service had a current Army-issued CoN, and so the survey was officially conducted via e-mail of MSWord documents and hand-delivered paper copies. Answers to the survey questions were expected to reveal how USAWC faculty prioritize the instruction of adversary concepts, doctrines, strategies and forms of warfare into their teaching, and identify if there is uniformity in their appreciation of the importance of these topics as part of the response to the HQDA and TRADOC tasks to better respond to the 21st century security environment.

Interviews

I originally planned to conduct eight interviews in-person, on-campus with the benefit of the information to be obtained by the online survey before travel. As mentioned previously, the interviews were the first data collection effort. I did employ the interview guide approach, wherein topics and issues to be covered are specified in advance in an outline, which provides structure, but still allows the interviewer the flexibility to allow the interview to evolve uniquely without following the predetermined order of questions, using the guide to ensure that all questions are asked and answered. During the on-campus visit, I had anticipated accomplishing only eight interviews participants (15% of the qualified pool), but in fact, 17 hours of interviews with 17 faculty were conducted.

Patton (2002) explains that a highly focused interview protocol ensures that time available is used efficiently. According to Patton (2002), when conducting research associated with a program evaluation, "it may be possible to interview participants once for a short, fixed time…so highly focused questions serve to establish priorities" (p. 346). Accordingly, I developed an outline to establish priorities that would ensure optimal use of time available with each interviewee. I conducted follow-up fact-checking via e-mail with specific questions of meaning when needed.

The protocol for these interviews was semi-structured in that questions might be used flexibly, without having to abide by a pre-determined order, with emphasis on exploring the issues as the flow of the interview would support. According to Patton (2002) a common combination strategy for interviews is to use a standardized format in the early part of the interview, to get the priority questions completed, and then switch to a less structured approach. I used this approach in those cases where the original interview appointment is shortened due to schedule changes on the part of the respondent.

 Merriam and Tisdell (2016) explain that interviewing in qualitative research, "is more open-ended and less structured" (p. 110), which supports obtaining the rich descriptive data needed to understand their experiences and challenges, and to find the KMO influences impacting attainment of the stakeholder goal. Patton (2002) identified six types of questions interviewers can ask (a) experience and behavior questions, (b) opinion and values questions, (c) feeling questions; (d) knowledge questions; (e), sensory questions, and; (f) background/ demographic questions (pp. 350–351). I planned to use primarily types 1, 2, 4, and 6. The experience-related questions examine how the current curriculum is taught, and what are USAWC faculty doing to improve the curriculum to answer the USAWC research question and

the Army mission to improve strategy education. Opinion and Values questions probed USAWC

faculty views on the validity of the mission to improve strategy education, and what they think

should be done. Knowledge questions explored USAWC faculty familiarity with the adversary

concepts, doctrines, strategies and forms of warfare, the curriculum redesign process, and the

importance of change. These are the questions that were seen as mostly likely to reveal KMO

influences affecting goal attainment. Rubin and Rubin (2012) emphasized the need to establish

trust with the respondent during the interview. In asking questions, I sought to develop trust by

clearly demonstrating my sincere interest in what the respondents were sharing to encourage

their participation over the length of the interview, and to be willing to participate in follow-up

interview at a later date if required.

Observation

According to Bogdan & Biklen (2007), in qualitative research, interviews are often

followed by observations. I planned to conduct a minimum of four classroom observations

during my on-campus research period, for the length of the class (60 to 90 minutes). Merriam

and Tisdell (2016) explain that observation is an effective research tool when it is systematic,

addresses a specific research question, and when it is subject to checks and balances that ensure

it will produce trustworthy results. Achieving a level of "systematic" quality was enabled by a

focused observation protocol.

During the planning phase, I anticipated that in a week, with many competing research

tasks, three classes would the most that could be observed. Based on observed seminars at the

Asia Pacific Center for Security Studies in Honolulu, I had estimated the class length would be

60-90 minutes. Regarding the process of seeking approval for observations, Bogdan & Biklen

(2007) recommend a low-key approach, emphasizing the status of the researcher as a student,

and to not approach the target population as an expert. Bogdan & Biklen describe the actual

observation protocol as "participant observation" where the observer visits the classroom and

performs the task in an unobtrusive manner that does not interfere with the normal flow of the

class (p. 87). My planned role was that of an observer participant as articulated by Merriam and

Tisdell (2016), in that my role would be explained to the students in the class (I planned to be

seated in the classroom with the students), and intended to observe rather than participate, as

Merriam and Tisdell point out that, "participation in the group is definitely secondary to the role

of information gatherer" (p. 145). While the participant role permits interaction with the students

during the instruction, the limited time available during the visit argued against more active

participation, because it would take away from the instructor/student interaction I need to

observe and write accurate field notes.   I kept to this role in all but one classroom, where I was

invited to share regional expertise by the professor. In the classroom setting, I also employed the

cooperative style of observation suggested by Bodgan and Biklen (2007), reflecting that I had to

negotiate with individual faculty for permission to observe, and would have limited time to

conduct such observations.

The main purpose of the classroom observations was for triangulation of other data

obtained through surveys, interviews and document analysis. As Merriam and Tisdell (2016)

explain, observations also provide context for follow-up interviews with the original

respondents. The focus of my observation was to determine from instruction and student

discussion how current theater problems are examined, the degree of emphasis and attention to

the novel forms of warfare, and whether the academic environment simulates, or models the

experiences the students will face when they report to 3 and 4-Star HQs. From observations, I

expected to gain additional information that would assist in triangulating emerging findings, to

provide context to the questions asked on experience and behavior, and to observe KMO

influences in play that could not otherwise be understood from surveys and interviews alone. I

also had planned to look at how the instructor provides opportunities for students to put into

practice what they have learned in the development of theater military strategies that account for

adversary use of hybrid warfare during the competition phase.

Writing on the topic of 'observation in research' Merriam and Tisdell (2016, p. 138)

point to the need for a systematic approach to observation. Reflecting this I planned the site visit

to take place when the course lessons would provide the best opportunity to observe strategy

education focused on how the new 21st century security environment, characterized as 'a

complex world' presents adversary concepts, doctrines, strategies and novel forms of warfare

that challenge traditional strategy formulation. As Merriam and Tisdell (2016) explain, the

overall time spent on-site, and the number of visits, are constrained by time, money, and other

resources available to the researcher, which was certainly true in my case as a working

professional.

The timing of the visit (10-15 DEC 2018) fortunately coincided with the Theater Strategy

and Campaigning (TSC) Course instruction for lessons 9-12, which covered the Joint Planning

Process, Operation Assessment, and Joint Functions (USAWC, 2018d).   However the timing of

the visit meant that the most applicable lesson, TSC 5 "Campaigning" which most closely

connects to the problem of practice as it focuses on "the competition below the threshold of

armed conflict…as a means to assist the Joint Force in campaigning" (which is the execution of

the Theater Military Strategy into operational campaigning) could not be observed (USAWC,

2018b, p. 37). Nevertheless, four classroom instruction observations of the REP curriculum

were completed, two in seminar (TSC 10 and TSC 11), two classes (CL 2201) of the Joint Land,

Air and Sea Strategic (JLASS) Special Program Elective. The JLASS elective puts students into the roles of senior leaders or principal staff positions in the Joint Chiefs of Staff, the CCMD HQs of U.S. Northern Command, U.S. European Command (NORTHCOM), U.S. Africa Command (AFRICOM), or in the Department of Homeland Security (DHS) for both classroom and exercise interaction (USAWC, 2018g). Students are required (among other tasks) to, "evaluate and revise existing campaign plans based on their suitability to support U.S. and allied interests. Prioritize resource allocation to execute campaign plans" which directly bears on the proposed organizational goal (USAWC, 2018g, p. B-84). I observed the EUCOM and AFRICOM groups as they were introduced to the scenario and Joint Force Command structures. In addition, I observed one class of the Basic Strategic Art Program (BSAP).

Documents

Elements of the USAWC curriculum are publicly available on the USAWC website, but working documents on curriculum re-design are not publicly available. My initial research of publicly available information revealed top-level detail on the content and focus of the USAWC strategy education curriculum that informed the interview, survey, and observation components of the research. During the site visit, USAWC faculty provided 19 important internal documents that allowed for a systematic content review to identify the current level of attention paid to the adversary concepts, doctrines, strategies, and forms of warfare characterizing the 21st century security environment, and the challenges of developing theater military strategies to counter them. Of the six types of documents described by Merriam and Tisdell (2016), I collected only organizational documents from the professors, researchers, and administration, that revealed curriculum content, decision-making about curriculum reform, prioritization of efforts, and resourcing decisions.

Merriam and Tisdell (2016) cite Patton (2015) to explain that, like observations, documents will generate new questions for follow-on interviews, to understand past decisions and arrangements made in the observation, relevant to the research study questions. The selection criteria for my interview respondents was set in part to have access to faculty members knowledgeable of past efforts of curriculum reform, who would be able to assist me in deciphering meaning from the document research. Questions arising from the document analysis were answered via e-mail exchanges.

Data Analysis

For document analysis, I sought out any information not publicly available on the USAWC curriculum review committee's past efforts at reforming the Strategy Education curriculum in the Theater Strategy and Campaigning Course and the National Security Policy and Strategy Course. I hoped to obtain evaluations of the curricula of the courses providing strategy education to understand how the USAWC curriculum committee approached curriculum revision to respond to past Army directives, but did not obtain any such documents. Throughout the document analysis process, I looked for evidence of knowledge, motivation, and organizational influences that might hinder attainment of the proposed stakeholder goal. I also sought to identify how the novel forms of warfare characterizing the 21st Century security environment were addressed and integrated into instruction.

For the surveys, I captured simple counts and percentages of responses to measure the frequency of responses. As the survey questions employed ordinal scales, prioritization as well as Likert scale responses, the data captured easily supported simple table display of the results. Descriptive analysis of statistical survey data was analyzed from the perspective of the research questions and the assumed KMO influences.

For interviews, data analysis began with note-taking that is a back-up to the recording, and a place where I captured my own thoughts about the nature of the interview, elements that could not be picked up by a voice recorder, such as body language, and initial conclusions, and emergent findings. The handwritten notes provided a support to the transcribed interviews. The recorded interviews were transcribed immediately following the site visit, and edited for accuracy. I followed up with faculty via e-mail or telephone for follow-up questions to ensure accuracy of the transcriptions and to go deeper into promising subject areas revealed during the interviews. When questions arose during the interview data analysis phase, I would first listen to the record interviews, along with the transcribed text, while referencing interview memos to improve recall of the interview and connect the field note interviewer comments back to the actual respondent remarks.

To make sense of the data collected, I employ the process of coding in three steps: 1) organization; 2) categorization, and; 3) identification of themes. J. Maxwell (2013) suggests three categories of coding that align with this approach, namely organizational, substantive, and theoretical (p. 107). USC Rossier School of Education Professor Samkian (2018) proposed the four levels of coding: (a) Level 1 – discrete – open / empirical / emergent codes; (b) Level 2 – Categories – axial, analytic, pattern codes; (c) Level 3 – Patterns, and (d) Level 4 – findings, assertions and propositions. Samkian (2018) also provides two major categories of codes, namely, *a priori* codes and emergent codes. The first of these, *a priori* codes, may be predetermined, and are sometimes referred to as deductive codes, that are derived from the conceptual framework, list of research questions, problem areas, etc. As the name implies, emergent codes are induced from the available information collected. Regarding the coding of the data, I started with the development of *a priori* codes that were organized according to the

central issue for each of the 11 KMO influences as the first level organization of data to start the analysis process and gain control of the data.

Emergent codes developed from concepts, concerns, grievances, obstacles, etc., which may be described as focus areas, that were revealed during interviews. The emergent codes allowed for parallel coding of focus areas for analysis. Among the emergent codes, those that proved useful were those that addressed (a) focus on 3 and 4-Star HQs; (b) curriculum revision is too hard; (c) faculty perceptions that a particular subject matter was already adequately taught in seminar vs. the contrary; (d) acknowledgement of the need for change vs. resistance to change; (e) the tension between general education and specific preparation for follow-on assignments; (f) the prioritization of the competition phase versus warfighting, and; (g) the tension between teaching students to be 'strategic thinkers' vs. being effective strategic planners in developing actual theater military strategies. These emergent codes are evident in the presentation of findings in Chapter Four.

Credibility and Trustworthiness

J. Maxwell (2013) defines validity, "to refer to the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account" (p. 122) and identifies the concept of 'validity threats,' which are the source of alternative interpretations, or other ways of understanding the data and conclusion, and stress that these threats are made implausible by evidence (p. 121). To ensure that data, findings, and recommendations of this study are credible and trustworthy, I employed the strategies provided by Maxwell, J., the first of which is to capture rich data via multiple methods of collection, namely, surveys, interviews, observation and document analysis. According to J. Maxwell this is approach is a proper component of a validity strategy (p. 126).

The second strategy is respondent validation, also known as 'member checks' (Merriam & Tisdell, 2016, p. 246). This is the solicitation of feedback from interview respondents and observations, and is, according to J. Maxwell (2013), "the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do…" (p. 126). Merriam and Tisdell (2016) cite Patton (2015), who explains that, "triangulation… increases credibility and quality" by countering the concern that study's findings are drawn from a single method or source (p. 245). Member checking was conducted via follow-up communications to verify respondent comments or to seek additional information, while inclusion of four data sources for this study enhanced the credibility and quality of findings presented in Chapter Four.

A third strategy is to search for discrepant data and negative cases (Merriam & Tisdell, 2016, p. 249). J. Maxwell (2013) identifies this as a, "key part of the logic of validity testing" as outlier data can point to defects in data (p. 129). Contrary findings are presented in Chapter Four along with those that constituted the majority opinion. A fourth strategy is that of triangulation (explained previously in this chapter), which can be achieved by collecting data via multiple methods to compare findings. Triangulation was accomplished by drawing from each of the four data sources when possible in developing findings.

A fifth strategy is that of numbers or enumeration. J. Maxwell explains that qualitative studies have an implicit quantitative component, and that claims of a phenomenon as being either typical or rare requires quantitative support (p. 28). Glesne (2011) observes that counting is a basic way to structure the research data, and that, "counting not only may be useful, it may also be necessary" (p. 238). This fifth method helped to capture frequency of responses or concepts identified by faculty during the interviews. Throughout the research, I sought internal reliability

with the strategy of enumeration to gauge the typicality or rarity of themes identified, and communicate these with descriptive phrases, such as 'few,' 'several,' 'most,' 'nearly all,' etc.

While ethical conduct of the research is more of an imperative than a strategy, Merriam and Tisdell (2016), emphasize that, "reliability and validity in qualitative research involves conducting the research in an ethical manner" (p. 238). The ethics section in this chapter addresses this important component. Coinciding with this imperative is the importance of rigor in research methods, which also ensures the trustworthiness of the study (Merriam & Tisdell, p. 242).

According to J. Maxwell (2013), two of the main validity threats are researcher bias and reactivity. Researcher bias is understood as the tendency of the researcher to select data that conforms to the researcher's, "existing theory, goals, or preconceptions" (p. 124). Addressing researcher bias requires the researcher to explain his, or her values and expectations that may influence the conduct of the study and its conclusions, in order to counter that influence (p. 124). According to Maxwell, J., respondent validation is an effective strategy to counter the validity threat of researcher bias and researcher misunderstanding of what he, or she has observed or heard (pp. 126–127). This was accomplished in part by the method of briefing back to the respondents what I heard and understood, a technique known in the U.S. Army as the 'back brief.' The researcher's biases are covered in a following section to this chapter, "Biases, Values and Personal Background of the Researcher."

J. Maxwell (2013) also discusses the concept of reactivity, a validity threat which describes the influence of the research on the setting or the organization/individual studied, and states that the goal is not to eliminate this influence, "but to understand it and use it productively" (p. 125). Reactivity in interviews, also known as 'reflexivity' (Hammersley &

Atkinson, 1995, as cited in J. Maxwell, 2013, p. 125) is the influence the researcher has on respondents and how they answer questions. The validity threat of the respondent providing the 'socially desirable response' to interview questions is a function of reflexivity. In interviews and observations, I introduced myself, first and foremost as a doctoral student researcher, interested in assisting the stakeholder organization to realize its goal via an evaluation study to identify any knowledge, motivation, or organizational gaps that might interfere with goal attainment, in this case, supporting the Army Operating Concept through strategy education.

Ethics

Glesne (2011) highlights the ethical considerations of informed consent, avoidance of harm, and confidentiality, in conducting research. The concept of 'informed consent' is the first of five basic ethical principles guiding the research design, and Glesne (2011) emphasizes that research subjects or participants, "must have sufficient information to make informed decisions about participating in a study" (p. 163). Glesne's second principle is that, "research participants must be able to withdraw, without penalty, from a study at any point" (2011, p. 163). he USC Office for the Protection of Research Subjects (OPRS) explains that "informed consent is essential before enrolling a participant and ongoing once enrolled" (Shahnazarian, Hagemann, Aburto, & Rose,2013). Adhering to these principles, I provide informed consent forms to all USAWC faculty via e-mail to confirm their voluntary participation in the study and explaining their right to withdraw without penalty, and reiterated these points before each interview.

Rubin and Rubin (2012, and Glesne (2011) emphasize that the core of expectations and obligations of the researcher is the principle that the participants of the research should not come to any harms because of the research. Key to accomplishing this is to ensure confidentiality of the data and of their participation through anonymity of participants. The informed consent form

provided to the USAWC as part of my introduction specified that faculty participation and remarks would remain confidential. These points were reinforced at the time of the interview. Rubin and Rubin (2012) and Creswell (2014), all cite the importance of proper security of interviews to prevent alteration or loss of the data, which would harm the research itself, or loss of the data to unauthorized personnel, which might harm participants who have provided their remarks with the assurances of anonymity.

To ensure accuracy of the data collected through interviews, I used a recording device and asked each participant for permission to record. To verify accuracy of the interviews, I obtained written transcriptions, and in those cases where verification was needed, I used the transcribed interview to frame the question. In transmitting and storing electronic data, I used random numbers for respondents to protect their identity, and ensured the security and safe storage of electronic files and handwritten notes to prevent loss. In considering the risks to anonymity when using quoted remarks from interviews in the dissertation, I refer to the faculty member interviewed as a "faculty respondent," or "interview respondent." Duke and Martin (2011) explain that direct quotations and excerpts from field notes should be used to, "inspire trust in the researcher's interpretations" (Duke & Martin, 2011, p. 14). My use of quoted material is to provide the exact wording. While some faculty stated that they were comfortable with being quoted, I did not need to directly attribute any quote to any interview respondent, and maintained the anonymity of faculty participants.

Biases, Values and Personal Background of the Researcher

Creswell (2014), explains that researchers should, "explicitly identify…their biases, values, and personal background" as it relates to the research and the organization being studied (p. 187). I approached this research topic as an Army-certified strategist (awarded the

certification of Army Strategist (Additional Skill Identifier 6Z) on April 17, 2008, based on

military education and operational experience while deployed in various allied and joint

headquarters). I also approached the stakeholder organization as an 'outsider,' as described by

Merriam and Tisdell (2016), who explain that a researcher will either be an insider or outsider to

the community under study, and that this role influences the conduct of the research. While I am

a December 2000 graduate of the USAWC defense strategy course, this course, which is

currently limited to 230 officers per year, this course is offered only via distance learning

(USAWC, 2017d). I have not attended any resident courses on the campus at Carlisle Barracks,

and approached the study of Army Senior Officer strategy education without any on-campus

experience with the USAWC faculty that might affect my objectivity.

My perspectives on operational and theater strategies reflect 29 years of active service in

the Army, which included: 11 years as a staff officer in 3 and 4-Star HQs (U.S. Pacific

Command; Joint Task Force 519; Allied Joint Forces Command Naples (NATO); 1st German-

Netherlands Corps (NATO); HQ International Security Assistance Force Afghanistan; U.S.

Forces Afghanistan; ISAF Joint Command, and; U.S. Army Pacific); five operational

deployments (Afghanistan in 2002, 2008, and 2009; Bosnia as part of the NATO Stability Force

(SFOR) in 1997, 1998-1999), and; two missions to Kosovo (2000, and 2010). I also served as

the senior Army information operations officer on the Pacific Command staff during

humanitarian assistance operations UNIFIED ASSISTANCE in 2004 and TOMODACHI in

2011. Over the last 5 years, I have worked as a defense contractor for the Department of the

Navy at HQs U.S. Indo-Pacific Command in support of the J39 Information Operations

Directorate. Concerning the new complex security environment, my current work in analyzing

the concepts (some outlined in Chapter Two) of hybrid warfare, Russian information

confrontation (an element of the Russian 'Gerasimov doctrine' of hybrid warfare), the PLA

'Three Warfares' doctrine, deterrence in competition, and the influences of both PLA and

Russian unrestricted warfare, shaped my appreciation of the challenges facing 3 and 4-Star HQs

in developing effective theater military strategies.

Ethical Questions Deriving from the Researcher-Participant Relationship

Merriam and Tisdell (2016) explain that in qualitative studies, 'ethical dilemmas' are

associated with the collection of data and dissemination of findings, which are both overlaid by

the researcher-participant relationship (p. 261). Merriam and Tisdell (2016) specifically address

the issue of informed consent from the perspective of whether and how much the researcher

reveals the purpose of the research to the participants. In this case, the original research question

was prepared by faculty of the USAWC and published in the USAWC KSIL, and so the purpose

of the research was familiar to the selected stakeholder group. Glesne (2011), explains that most

conventional research relationships ascribe power and influence disproportionately to the

researcher (p. 171). Creswell (2014), recommends selecting sites that will not raise power issues

with researchers, sites where the researcher does not have an interest in outcomes, as doing so,

"does not allow for the objectivity required…for the full expression of multiple perspectives that

is needed by qualitative research" (p. 96). I did not expect this to be the case, as all interviews

were conducted in the offices or workspaces of the interview respondent's choosing. Concerning

having an interest in the outcomes, I approached the research with an open mind to hear and

discuss alternative assessments of the problem and alternative concepts for solutions. While I

am a certified strategist who focused on developing strategy while on active duty, my research

focus is on teaching strategy, and my stakeholder group is the faculty who are the experts at

teaching strategy. Furthermore, I do not work for the Department of the Army, or any DoD

school or college. In my interviews with USAWC faculty, and observations of their instruction,

I did bring an appreciation of how the current threats complicate the character and focus of

theater strategies in the current security environment (the complex world), working with

educators who are seeking to educate strategists and strategic planners, and who understand the

timeless nature of strategy development for a wide range of strategic problems.

Limitations and Delimitations

The design of my study, based on delimiting decisions, imposed limits on the amount of

data I was be able to collect, the actual time available for data collection was compressed due to

the time required for obtaining formal approvals. This study was intended to begin with

asynchronous data collection via survey. This did not occur, and data collection for all types was

delayed until receipt of approval from the USAWC Deputy Provost, and the USAWC Human

Protections Administrator to conduct human subject research.   In execution, surveys usually

followed interviews, and so the interview protocol was employed without the benefit of

knowledge of the survey results, which were not compiled until April 2019.

Glesne (2011), points out estrangement from the research site helps the researcher to

approach the writing of findings from a perspective that is more global than situation specific,

which applies in this case as this was my first visit to the campus (p. 222). As Weiss (1994)

observed interview guides do not survive contact with the first respondent, and first and second

interviews tend to be "patchy" (p. 52). I considered these points in developing the interview

protocol to address this constraint and keep interviews on-track. While I was concerned that the

short time available on-campus might result in a smaller subset of observations for the purpose

of triangulation of emergent findings from interviews and follow-up member checks, this proved

not to be the case, as I conducted more than twice the originally planned goal of 8 interviews.

As pointed out by Merriam and Tisdell (2016), human perception is very selective, and is subject to criticism as being unreliable for that reason. Systematic observation is required, which was difficult to accomplish in a single week of on-site data collection. A limitation of the observation data source was that I was able to see only a few days of a nine-month curriculum.

A typical limitation for qualitative research involving surveys and interviews is that respondents may provide false information (lying), withhold information, or provide what they consider socially acceptable answers (J. Maxwell, 2013; Merriam & Tisdell, 2016). In this study, I assessed that the likelihood of respondents lying was extremely low, as the stakeholders are mostly serving or retired Army officers, bound by Army Values of Honor and Integrity, and who are genuinely interested in accomplishing the mission. In addition, concerns over the protecting the reputation of the organization could be seen as possibly limiting the candor of the interview respondents, who might not wish to reveal information that might reflect poorly on the organization. This again is unlikely as the Army is an organization that routinely identifies areas for improvement through the After Action Review (AAR) process at all levels to find performance gaps and address them.

I have de-limited the study to the assumed KMO influences, in accordance with the Clark & Estes Gap Analysis Framework, and have limited this assessment to just one of three major stakeholders. Accordingly, it is reasonable to assume that there may be KMO influences related to the other stakeholders, or influences that do not easily fit in the KMO gap analysis framework that are worthy of attention and might be the focus of a follow-on study.

Results of field research against proposed plan

At the invitation of the Deputy Provost of the Army War College, I conducted a one-week site visit 10-15 December 2018. With the great support of the Department of Military

Strategy, Planning, and Operations, I conducted interviews with 17 faculty (9 more than the goal), four USAWC REP classroom observations and one non-core curriculum course observation (2 more than the goal), document collection and research, and participated in a course design working group session, which was unexpected. A total of 24 survey responses were collected from USAWC faculty, less than the goal of 35, but sufficient to assess the faculty's appreciation of: 1) adversary concepts, doctrines, strategies and forms of warfare; 2) their importance to USAWC graduates; 3) how well USAWC graduates would recognize them in the real-world, and; 4) the degree to which they are represented in the USAWC strategy education curriculum.

Description of Data Collection

Survey

The Army Research Institute approved the survey to be administered in paper format at the Army War College, as no online survey platforms were credentialled with an Army CoN, necessary for approval for faculty to complete the survey from Army computers at the USAWC. However, some respondents preferred to complete the online version on Survey Monkey using their personal computers and cellular telephones. The paper surveys were distributed to faculty, and in-person by the principal researcher during the one-week site visit. The survey was sent via e-mail to all 54 faculty, and returned 24 responses, less than the hoped-for response tally of 35, but useful for measuring opinions, as most responses came from the Department of Military Strategy Planning and Operations engaged in the teaching of strategy at the theater level where 3 and 4-Star HQs are engaged in the competition phase in the complex world.

Interviews

A total of 17 faculty were interviewed, more than twice the planned number, as the

USAWC faculty were very supportive of this research and willing to participate. At the urging

of the Director of the Department of Military Strategy, Planning and Operations (DMPSO), I

interviewed faculty across departments, as all had a role in teaching and supporting the strategy

education curriculum. With each interview, introductions were made to other faculty

(resembling the snowball or chain method described by Merriam and Tisdell) who should also be

interviewed in order to gain an appreciation of the inter-connected approach the USAWC takes

to strategy education.

Observations

Two iterations of the basic Resident Education Program (REP) core curriculum seminar

instruction were observed, along with one class of the Basic Strategic Art Program (BSAP), and

two of the Joint Land, Air and Sea Strategic (JLASS) Special Program Elective.   The timing of

the visit (10-15 DEC 2018) fortunately coincided with the Theater Strategy and Campaigning

(TSC) Course instruction for lessons 9-12, which covered the Joint Planning Process, Operation

Assessment, and Joint Functions (USAWC, 2018d).   However the timing of the visit meant that

the most applicable lesson, TSC 5 "Campaigning" which most closely connects to the problem

of practice as it focuses on "the competition below the threshold of armed conflict…as a means

to assist the Joint Force in campaigning" (which is the execution of the Theater Military

Strategy) could not be observed (USAWC, 2018b, p. 37). Nevertheless, 4 USAWC REP

classroom instruction observations were completed, two in seminar (TSC 10 and TSC 11), two

classes (CL 2201) of the JLASS elective. The JLASS elective puts students into the roles of

senior leaders or principal staff positions in the Joint Chiefs of Staff, the CCMD HQs of U.S.

Northern Command, U.S. European Command (NORTHCOM), U.S. Africa Command

(AFRICOM), or in the Department of Homeland Security (DHS) for both classroom and exercise interaction (USAWC, 2018g). Students are required (among other tasks) to "evaluate and revise existing campaign plans based on their suitability to support U.S. and allied interests [and] Prioritize resource allocation to execute campaign plans" which directly bears on the proposed organizational goal (USAWC, 2018g, p. B-84). I observed the EUCOM and AFRICOM groups as they were introduced to the scenario and Joint Force Command structures, and examined theater operational challenges within a CCMD AOR.

Document Analysis

The documents obtained during the site visit included General Officer and Alumni Surveys and the current USAWC curriculum, student materials, proposals for new courses and programs, and curriculum guidance documents. These documents are not available on the public website and provided a deeper look at USAWC curriculum content and student and 'customer satisfaction' with the performance of USAWC graduates. The General Officer surveys measured senior leader satisfaction with the performance of USAWC graduates working at senior Army, Joint, and multi-national organizations and headquarters. Alumni surveys measured graduate satisfaction with the course, solicited alumni suggestions for improvements for the curriculum and assessments of how well the USAWC instruction prepared them for their follow-on jobs. These surveys provided for an ability to assess employer (the General Officers) and employee (alumni) prioritization of curriculum subject matter through the lens of the actual work environment USAWC graduates find themselves after graduation. The surveys provided several key findings regarding the perceived importance, or lack thereof, that both groups placed on understanding the new security environment, and the development of theater military strategy and theater campaign plans. The current curriculum documents detail the level of time and

attention given to the subjects of interest to this study, and in what courses they are being taught

and examined.

CHAPTER FOUR: FINDINGS

The purpose of this chapter is to report the results and findings of data collection to evaluate how the USAWC is responding to Army directives to improve strategy education in response to the challenges of the complex world. Research questions 1-4 proved useful during the data collection phase, but as this dissertation employs the Clark and Estes (2008) Gap Analysis Framework, Question #5 most comprehensively frames the significant findings. The findings are therefore organized primarily in response to research question #5, according to the Knowledge, Motivation, and Organization influences presented in Chapter Three. The findings presented here were drawn from a survey completed by 24 Faculty of the Army War College, from interviews with 17 faculty members, 5 classroom observations, and document research from the Army War College internal curriculum directives, internal surveys, memoranda, and internally published curriculum. Knowledge, motivation, and organizational influences were validated or invalidated as potential causes for performance gaps. In those cases where the USAWC was performing well, the KMO influences were considered to be assets. All but one of the knowledge influences were identified as possible causes for performance gaps, the exception being K2, where the findings demonstrated that the USAWC faculty ability to teach how to develop theater strategy is an asset, albeit one that could be more fully optimized. All motivation influences and all organization influence were identified as possible causes for performance gaps.

Results and Findings for Assumed Knowledge Influences

Knowledge Influences are considered gaps if responses to interview and survey questions indicated the faculty level of knowledge or ability described in each of the 4 knowledge influences would hinder attainment of the proposed goal to improve USAWC strategy education

to achieve the goal of the Army Operating Concept of 'winning in a complex world.' These

influences were developed based on the premise that faculty should: 1) know the current forms

of warfare, strategies and doctrines of our adversaries that make the current security environment

a complex world described in the Army Operating Concept; 2) know theater strategy

formulation; 3) know theater strategy execution (campaigning); 4) be able to identify gaps in the

curriculum based on the current security environment, and; 5) know how to design curriculum

with the right learning objectives. Validation, or partial validation, of these influences means

that the faculty likely has knowledge-related gaps that would prevent mission accomplishment.

Table 5

Assumed Knowledge Influences and Knowledge Categories

Category	Assumed Influence	Validated (gap)	Partially Validated (gap)	Not Validated (asset)
Declarative (Conceptual)	**K1:** USAWC strategy education faculty must have mastery level knowledge of the adversary concepts, doctrines, strategies and current forms of warfare of warfare being employed by the Russian Federation and the People's Republic of China.		X	
Procedural	**K2:** USAWC strategy education faculty must have mastery level knowledge of theater strategy formulation.			X
Declarative (Conceptual)	**K3:** USAWC faculty must have mastery level knowledge of theater military strategy execution, and how to adjust them in execution (campaigning) to respond to the multiple variations and combinations of adversary forms of warfare that are complicating the development of military theater strategies that work.		X	

Table 5, continued

Category	Assumed Influence	Validated (gap)	Partially Validated (gap)	Not Validated (asset)
Procedural	**K4:** USAWC faculty must be able to identify and address the strategy education learning objective gaps in the current syllabi, as well as supporting readings, activities, assignments and assessments.		X	
Procedural	**K5:** USAWC faculty need to know how to design curriculum with the right learning objectives, that advances the learners' ability to apply the knowledge and skills learned, supported by practice strategies for effective knowledge transfer.		X	

Knowledge Influence 1 (K1): Mastery level knowledge of adversary concepts, doctrines, strategies and forms of warfare

A consistent theme of comments by senior leaders to improve PME is that the character of warfare has changed and have made the operating environment more complex (Dempsey, 2012; USACAC, 2015; Mattis & Hoffman, 2015; White House Office of the Press Secretary, 2017; Mattis, 2018, Hoffman, 2018; Dunford, 2018). As the CJCS, Gen Dunford wrote, "The character of war and strategic landscape have changed," and DoD planning must adapt accordingly (Dunford, 2018, p. 1). Understanding how the character of warfare has changed requires examining the forms of warfare, strategies and doctrines that drive those changes. Such knowledge is therefore an essential step towards analyzing how to improve strategy education PME to enable USAWC Graduates operating at the strategic level to make effective contributions at 3 and 4-Star HQs to win in the complex world. As demonstrated in Chapter

Two, the Army School System has Army School System has re-organized in the past, in response to adversary concepts, doctrines, strategies and forms of warfare (USAWC, 2017g).

This influence is partially validated (indicating that it may be a performance gap) as most of the faculty responses to the survey and comments in interviews demonstrate that several USAWC faculty do have mastery level knowledge of the current adversary forms of warfare and are therefore able teach them. Document analysis of curriculum and course content revealed where and how these warfare forms, strategies, and doctrines are being taught. The survey measured faculty knowledge of the current adversary concepts, doctrines, strategies and forms of warfare that are prominent in the current security environment; asked faculty to prioritize among these topics for instruction; asked the degree to which faculty believe these subjects are being taught as part of the USAWC curriculum, and; the degree to which students are learning them and can recognize them in the real-world. Faculty interviews sought after detailed examples of how the faculty brings its knowledge of current adversary concepts, doctrines, strategies, and forms of warfare into instruction.   Understanding the operations environment (OE) and information environment (IE) are both essential to developing a combatant command's theater military strategy and CCMD/ASCC theater strategy and campaign plan. As strategy education is distributed across the faculty, it is essential that all faculty have mastery level understanding of the adversary concepts, doctrines, strategies and forms of warfare that complicate developing and implementing theater military strategies in today's complex world.

Forms of Warfare in the USAWC Curriculum. Producing curriculum relevant to the AOC and the complex 21st Century security environment is one of the 8 major initiatives in Army University strategic plan (Perkins, 2015, p. 7). The forms of warfare emphasized in this study are those currently employed by our adversaries during the competition phase (and into

conflict), primarily in Gray Zone conditions and conflicts, as part of Hybrid Warfare, and according to the operational concepts, doctrines, and strategies employed by China and Russia. These topics are relevant to the extreme to the AOC in the competition phase. Faculty interviews point to the following core courses as having a proper role in explaining these concepts: Theory of War and Strategy (TWS, taught by the Dept. of National Security and Strategy), Theater Strategy and Campaigning (TSC, taught by Department of Military Strategy, Planning and Operations [DMSPO]). The TWS Course Directive does not specifically mention any of these forms of warfare, adversary doctrines/strategies, or the conflicts/confrontations taking place under Gray Zone conditions (USAWC, 2018f). Likewise, the TSC Course Directive (USAWC, 2018b) does not specifically mention Gray Zone, hybrid warfare, or any of the Chinese and Russian preferred forms of warfare, doctrines, and strategies that characterize today's security environment described as 'a complex world.'

In interviews, faculty explain that the absence of these specific terms in the course directive should not be taken as evidence that the students aren't learning about them in class and through assigned readings. This was explained to be common practice, as terminology changes meaning, unless the DoD or Army has established a lasting official definition. Learning outcomes are generally stated in skills and knowledge for application in work settings and are generalized. As one senior faculty member explained, the course directives, "may not address those specific names of warfare, but it's covering the kinds of warfare throughout history that have confounded us…because ultimately, the specifics of the types of warfare will change over time, but some of the underlying ideas will stay pretty constant."

Faculty members explained in interviews that the regionally-focused electives and Individual Research Projects (IRPs) allow students to learn more about the threats in a particular

region of focus of their choosing, which often reflects their follow-on assignment after graduation.   Document analysis reveals that from the 107 electives offered, three stand out as pertinent to understanding our adversaries in the complex world. Students wishing to learn more about how to respond to Gray Zone challenges in the competition phase may take the elective course DE2360, "Campaigning in the Gray Zone," which opens the door to further examine how adversaries operate in the Gray Zone, the forms of warfare they use, and the strategies and doctrines that drive those actions (USAWC, 2018g). To learn more about how Gray Zone conditions, adversary forms of warfare and strategies/doctrine create dilemmas for the Combatant Commanders of the two priority theaters of EUCOM and INDOPACOM, students may take course NS2311, the Advanced Regional Studies (ARS) elective for Europe, or course NS2283, "China as a World Actor" (USAWC, 2018g).   A senior faculty explained that once they have completed the core curriculum, students will choose their electives in order to pursue their interests. Some of them will elect to study these issues, but many will not focus on competition, and issues like Gray Zone and Hybrid Warfare.

Faculty Knowledge of Hybrid Warfare and Adversary Warfare Concepts. Survey results are shown in the tables below to support an examination of faculty familiarity and knowledge of adversary forms of warfare, which is necessary if they are going to integrate these topics into their instruction.

Table 6

Faculty appreciation of the adversary forms of warfare characterizing the current environment.

Form of Warfare	Perceived Importance for Strategy Education	Faculty Ranking
Gray Zone	91% of faculty responses rating this as 'very important' (58%), or 'important' (33%).	1
Hybrid Warfare	84% of the faculty survey respondents rated as either 'very important' (28%), or 'important' (56%).	2
Russian Information Confrontation	84% rated this as 'very important' (28%), or 'important' (56%).	3
PLA Unrestricted Warfare	80% of the faculty rated this as either 'very important' (32%), or 'important' (48%).	4
PLA 'Three Warfares' Doctrine	60% of faculty survey respondents rated PLA 'Three Warfares' as either 'very important' (32%), or 'important' (28%).	5

Survey responses demonstrated that the faculty are cognizant of these forms of warfare and the Gray Zone conditions of the current security environment, as ratings of importance of these topics trended high across the board. Survey results demonstrate that faculty saw enabling students to understand Gray Zone conflicts as the most important aspect of the Adversary threat picture. The Gray Zone is a set of conditions favorable to our adversaries permitting them to carry out hybrid warfare during the peacetime competition phase to accomplish their strategic objectives to the detriment of the U.S. and Allied security position in the globe.

From survey responses, the faculty believe that the most important form of warfare characterizing the current security environment for students to learn is Hybrid Warfare, which was also mentioned frequently during interviews. This was followed up by the Russian Information Confrontation concept, and PLA Unrestricted Warfare, the last of which provides the PLA a theory of warfare, and methods that span peacetime competition into high-end major warfighting. PLA unrestricted warfare provides tactics and concepts for any country facing a

superior or near peer adversary, and so the methods therein are readily applicable for either the

PRC or Russian Federation. Of interest is that 4% of respondents rated this concept as 'not at all

important' which is perhaps an indication that they may be unfamiliar with a concept, that while

published in 1999, provides many of the methods used by adversaries operating in Gray Zone

conditions, and remains very relevant to challenges facing the CCDRs. The form of warfare

with the lowest importance rating is the PLA's 'Three Warfares' Doctrine, which China employs

primarily during the peacetime competition, and would continue to use through crisis and

conflict.

That Gray Zone problem addresses the conditions of the complex world, which is to say,

the complex security environment across multiple CCMD theaters, and it is therefore logical that

it have the highest ranking for instruction and student learning, as it has the widest applicability

for the work that USAWC graduates will do across the Army and the Joint Force. The survey

ranking of Russia's Information Confrontation as the most significant adversary-specific threat

may be explained by a faculty's interview remarks about the Army's historic and culturally

preference for the European Theater. A faculty interview respondent explained that, "… the

cultural heart of the Army is in Europe, right? And for good reason, [it's a] land war" that has

been fought twice in the two World Wars, and the European Theater saw decades of training and

preparation for a possible WW III during the Cold War. Russia is carrying out offensive

information operations and propaganda in the European Theater against the United States and its

allies, and is also active in the information environment of the U.S. homeland, during

competition, having carried out a significant influence campaign via social media to undermine

faith in the democratic process, disunify the American people, and meddle in presidential

elections (HPSC on Intelligence, 2018).   This active and aggressive effort is known as

'Information Confrontation,' an element of the so-called Gerasimov Doctrine of the Russian Armed Forces (Iasiello, 2017), and a version has been recently included in the warfighting doctrine of the PRC (Engstrom, 2018).

Document analysis points to two recent works published by USAWC faculty that demonstrate a research focus on the top two threats listed in the NDS, namely China and Russia. Among the recent works (2018) are two squarely focused on the problems confronting U.S. Indo-Pacific Command and U.S. European Command, as well as the gray zone challenges confronting all the geographic combatant commands (CCMDs), namely *Avoiding the Trap: U.S. Strategy and Policy for Competing in the Asia-Pacific Beyond the Rebalance*, (Lai, Troxell, & Gellert, 2018) and *Current Russia Military Affairs: Russian Strategic Objectives and Planning* (Deni, 2015). Taken together, these works of scholarship further demonstrate that some USAWC faculty do indeed have mastery level knowledge of these forms of warfare would contribute to USAWC curriculum design and course content, and for leaders across the Army.

The instructor and research faculty producing the scholarly articles, reports, and books are providing invaluable knowledge in support of all DoD PME. The work of research Faculty across Army University are considered to be a critical capability to executing the AU strategic plan, which states that the research and publications they produce are, "critical to create and exploit a unique asymmetric cognitive advantage over potential adversaries" in the complex security environment (Perkins, 2015, p. 19). Faculty interview respondents who have published clearly understand the complex world, and the challenges of the security environment from theater perspectives. These faculty could easily develop and teach classes (as electives or in seminar) focused entirely on the gray zone conditions, as well as adversary forms of warfare, operating concepts, and doctrines.   In the interviews, faculty explained that the Chinese and

Russian methods to exploit gray zone conditions are addressed in each of the main courses as part of the discussion on the complex security environment.   As one faculty interview respondent explained, "Some of the courses, NSPS, and TWS, talk about these ideas of an asymmetric threat or competition below the level of armed conflict." While faculty familiarity with PLA Unrestricted Warfare scored poorly in the survey, interviews revealed that a few faculty were very conversant with this concept of warfare.   Interviews also revealed that experience and knowledge about Hybrid Warfare and the other concepts and forms of warfare identified in the survey vary from one faculty to another. Said one interview respondent: "Some faculty do it better than others," but that they are making the effort to address these concepts. Another faculty member remarked that, "there are certainly faculty here who know it [Hybrid Warfare] and can talk [about] it, then there are some who just aren't. And so, that is I think the limiting factor, because they don't necessarily have the depth of understanding to be really comfortable to go toe-to-toe and in detail with the students." This respondent added that he believed that the USAWC should make the effort to ensure that all faculty have attained the necessary competence and familiarity to teach these forms of warfare confidently in seminars.

As Gen. Dunford has made clear, "the character and war and strategic landscape have changed" (Dunford, 2018), which requires USAWC students, as practitioners of operational and strategic arts to achieve mastery level knowledge of the adversary concepts, doctrines, strategies and forms of warfare that make up the security environment of the complex world. Students are coming to the Army War to learn about this strategic landscape, and require faculty who have mastery level knowledge on these subjects to prepare students for success at 3 and 4-Star HQs which are actively campaigning in peacetime to deter war, and planning/training for war should deterrence fail. The adversary concepts, doctrines, strategies and forms of warfare addressed in

the survey and interviews are those of China and Russia, the top 2 adversarial threats facing the

United States and her Allies as identified in the National Defense Strategy (Mattis, 2018). The

curriculum does not make clear that these topics are being addressed in instruction, and faculty

survey responses point to a disconnect between the level of importance faculty attach to these

issues, versus the sufficiency of the level of emphasis accorded to them in the curriculum and

instruction and the perceived level of competence of USAWC graduates to recognize them in the

real world.

The USAWC has sufficient expertise in the faculty as demonstrated by the works of

scholarship focused on Chinese and Russian threats, which can be leveraged in the curriculum

review process and development of course content. Students must have both factual and

procedural knowledge, associated with a given content area. Mastery level knowledge of

adversary concepts, doctrines, strategies and forms of warfare in the current security

environment comprise the body of knowledge that USAWC students, "must know to be familiar

with, in order to understand and function effectively or solve problems in a given area" or

discipline (Rueda, p. 28). As explained in Chapter One, conceptual knowledge includes,

"categories, classifications, principles, generalizations, theories, models, or structures pertinent

to a particular area," which properly describes the topics at hand, namely, the adversary

concepts, strategies, doctrines and forms of warfare (Rueda, 2011, p. 28).

Knowledge Influence 2 (K2): Mastery level knowledge of theater strategy formulation

This influence was not validated as a cause for failing to achieve the proposed goal, as

interviews and document analysis demonstrate the USAWC faculty has particular expertise in

the teaching of strategy, making this an asset for the USAWC to accomplish the proposed

organizational goal.   The literature review in Chapter Two demonstrated that USAWC

publishes research on the operational environment challenges confronting the CCMDs and how they develop and carry out theater military strategy. Document analysis of the AY2019 TSC course directive demonstrates that students are taught to formulate strategy as part of a Joint Planning Group (JPG) simulating the working environment of a 3 or 4-Star HQs. The final survey question measured to what extent faculty perceived the novel forms of warfare characterizing the 21st Century Security environment do complicate, or are important to, the formulation of effective theater military strategies.   Document analysis of course directives reveals that strategy formulation is a significant portion of the Theater Strategy and Campaigning course, which includes teaching the process elements outlined in the Joint Planning Process (JPP). Among the USAWC faculty are certified strategists from the FA59 career field, as well as regional experts coming from the Foreign Area Officer career field (FA48). The lesson authors are usually those with the greatest expertise within the faculty, based on currency with current challenges, their own published scholarly works, and past experience.

The USAWC brings in external experts who are working in the CCMDs, Joint Staff, National Security Staff as guest lecturers to reinforce teaching on understanding the linkages from National Security Strategy down to Theater Military Strategy. Several faculty interviewed named specific individuals who travelled to the USAWC to support this effort over the last two years. Faculty are also quick to highlight one of the key texts supporting instruction in the development and execution of TMS, namely the *Campaign Planning Handbook*, published and updated yearly by the DMSPO. Chapter 5 of this handbook, "Development of Theater Strategy and Campaign Plans," provides students the 'how-to,' step-by-step instruction on the development of a TMS and supporting campaign plan. The handbook explains how the TMS provides the framework for the Theater Campaign Plan, and how to develop the operations,

activities, and actions (OAA) the campaign plan needs to carry out to achieve strategic effects

favorable to the attainment of U.S. policy objectives in the theater. Included in this chapter is the

importance of understanding the complex environment confronting CCDRs. To prepare students

to be able to contribute to TMS development, the handbook explains the utility of the Joint

Planning Process (JPP) to the task, and explains procedural steps in a checklist (job aid) format

for implementation in their future jobs. The handbook bridges a doctrine and policy gap for

practitioners as these are still evolving regarding a standard formatting of TMS and TCP

(USAWC, 2018c). Procedural knowledge includes using the appropriate methods, models,

techniques, rules and methodologies particular to an activity (Rueda, 2011, p. 28).   DMSPO

faculty point out in interviews that this reference has received positive reviews from graduates in

the field who are confronted with the task of developing TMS and TCP.

While the faculty have demonstrated mastery of this area, surveys and interviews point to

possible gaps in terms of instructional content that would permit students to examine how

adversary concepts, doctrines, strategies and forms of warfare are making the task of developing

an effective theater military strategy and the supporting campaign plan so challenging for 3 and

4-Star HQs in the CCMDs. As stated previously, the purpose of a theater military strategy is to

inform a campaign plan with a theory of victory that will support 'winning in a complex world,'

and specifically, "…to win in Phase 0 whenever possible" (Robinson et al., 2014, p. 100).

Knowledge Influence 3 (K3): Mastery level knowledge of TMS execution (campaigning)

Interviews, document analysis, and classroom observations demonstrate that most

USAWC faculty responsible for teaching campaigning have mastery level knowledge of the

campaigning, but survey and interview responses indicate a gap in the teaching of adjustment of

campaign execution to respond to the adversary's variations and combinations of the forms of

warfare, and doctrines that make this work difficult in the real world at 3 and 4-Star HQs. The

procedural knowledge (see Rueda, 2011, p. 28) needed to respond to these complex adversaries

is the development of theater military strategies and the campaign plan that directly counter the

novel forms of adversary warfare during the competition phase.

The main course to teach all USAWC students about executing the TMS (campaigning)

is the Theater Strategy and Campaigning Course, (TSC) run by the DMSPO. The course has 33

lessons across 5 major thematic blocks over 4 months of instruction, and each lesson is

maintained by a lesson author in the DMSPO faculty. Campaigning is examined early and

throughout the course from the perspective of theory, current practice, and procedures, and

students apply what they have learned to case studies discussed in the seminar, and then in a

practical exercise. The TSC instructors make full use of students experienced in the use of the

Joint Planning Process to bring their experience into the seminar discussion (USAWC, 2018b).

The TSC curriculum is intended to, "help prepare students to function effectively in roles as a

strategic advisor, theorist, planner, or leader" (USAWC, 2018b, p. 1). The first of five blocks of

instruction enables students to understand the linkages of national strategic guidance to the

creation of theater military strategies and campaign plans, and how operational art is applied in

both the formulation and execution (campaigning).   The end of course 4-day (24 hour) exercise

challenges the students, "to apply operational art and design as part of a geographic combatant

commander's staff to achieve strategic effect" (USAWC, 2018b, p. 2). This exercise, named

Kalimitan, is based in the South China Sea, and allows students to draw analogies from real

world events reflecting the complex world. Students learn the process through which national

strategies, such as the NSS, NDS, and NMS, "are synthesized and translated into theater

strategies and campaign plans" (USAWC, 2018b, p. 3). According to one professor interview

respondent, the intent is not write out a 'full-up' TMS or TCP, but to introduce students to the

tasks, processes, etc., and then use that framework when tasked in a future job to develop a real

TMS or TCP.

The TSC learning objectives emphasize the 'complex environments' faced by CCDRs

(USAWC, 2018b, p. 18). Among the six Program Learning Objectives (PLOs) of the School of

Strategic Landpower to which the DMSPO belongs is, "to produce graduates who are able

to…apply strategic and operational art to develop strategies and plans that employ the military

instruments of power in pursuit of national policy aims" (USAWC, 2018b, p. B-1). The TSC

curriculum is also designed to support JPME Phase II Joint Learning Area 2 (JLA2), "Joint

Warfare, Theater Strategy and Campaigning for Traditional and Irregular Warfare in a Joint,

Interagency, Intergovernmental and Multinational Environment" (USAWC, 2018b, p. C2-1).

Within Learning Area 2 is the Joint Learning Objective (JLO) for students to be able to,

"evaluate how theater strategies, campaigns and major operations achieve national strategic goals

across the range of military operations" (USAWC, 2018b, p. C-1), which again focus on TMS

and TCP. This JLO is the right place to improve students' understanding of how to adjust TMS

to respond to the concepts, doctrines, strategies and forms of warfare employed by America's top

adversaries. Interviews with faculty reveal that many have extensive expertise in developing and

executing a Theater Campaign Plan and are mostly familiar with construct provided by the Joint

Concept for Integrated Campaigning (VCJCS, 2018). Faculty experience comes from past

assignments, and work in the field in support of CCMDs, which can be out-of-date.

Integration of threat concepts, doctrines, strategies and novel forms of warfare is taking

place, even as survey responses indicate that the level of attention in the current curriculum to

these topics is currently inadequate. A faculty interview respondent acknowledged the

importance of teaching the theater campaign plan and how the faculty approach it:

> So when we talk about what is a global campaign plan, how is it built, why is it built,
>
> who's building it, who is the coordinating authority, who is the primary action team, we
>
> necessarily have to talk about why these concepts actually have risen to the fore based
>
> on…they're in response to a threat. What is that threat? You clearly can't have that
>
> conversation without understanding what is a threat. In order to do that we read the JOE
>
> [Joint Operating Environment], and we read some posture statements.

The foregoing quote shows that the USAWC Faculty are in fact introducing the complexity of

threats posed by America's priority adversaries using recent Joint level assessments of the

operating environment. However, the current version of the Joint Staff's assessment of the Joint

Operating Environment 2035, published in 2016, is based on the previous National Military

Strategy of 2015, and the National Defense Strategy of 2012 (Kelly, C., n.d.). The document is

useful, because it is 'official,' and provides a description of the future security environment,

circa 2035 and identify, "implications of change for the Joint Force so it can anticipate and

prepare for potential conflicts" (CJCS, 2016, p. iii). However it reinforces the challenge

USAWC faculty have in finding authoritative documents from DoD describing these threats.

One faculty respondent advocated for the full implementation of the Joint Concept for Integrated

Campaigning (JCIC) as formalized doctrine, "as fast as possible" so that it could be taught as

"approved doctrine." The security environment's complexity is not static, and our adversaries

continue to refine their concepts, doctrines, strategies and forms of warfare to stay ahead of our

doctrine and education. Winning or losing in the competition (peacetime) phase is largely a

function of the quality of content and execution of the Theater Campaign Plan, and should

therefore be a priority learning objective for the USAWC.

Knowledge Influence 4 (K4): USAWC faculty must be able to identify and address the

strategy education learning objective gaps in the current curriculum

As this dissertation is looking for gaps, topics supporting learning objectives the USAWC

faculty agrees are insufficiently addressed represent potential curriculum gaps that can be

addressed through the curriculum review process.   This knowledge influence was partially

validated as a possible reason for a performance gap in teaching strategy. The USAWC faculty

do know how to identify gaps, as demonstrated in survey responses and interview comments,

however, several faculty stated that the current strategy education curriculum does not have gaps

that are preventing it from fully supporting the AOC. Survey responses indicate that current

adversary forms of warfare, warfighting concepts and doctrines are a curriculum gap, and these

are critical elements of the complex world where winning is proving to be a very difficult

challenge to 3 and 4-Star HQs during peacetime campaigning. The difficult balancing act

faculty must perform when addressing known gaps results in satisficing solutions that do not

address the knowledge gaps acknowledged by faculty in the survey.

The surveys assessed the degree to which USAWC faculty believed that the current

USAWC curriculum and instruction effectively covered current adversary concepts, doctrines,

strategies and forms of warfare. The following table shows faculty perceptions of whether the

current curriculum has the proper level of emphasis on ensuring students understand the forms of

warfare characterizing the current security environment.

Table 7

Faculty assessment on adversary forms of warfare properly reflected in curriculum.

Form of Warfare	Level of Emphasis			
	Too Much	About Right	Insufficient	Unsure
Gray Zone		56%	40%	4%
Russian Information Confrontation	4%	32%	56%	8%
Hybrid Warfare	4%	68%	28%	
PLA Unrestricted Warfare		52%	40%	8%
PLA 'Three Warfares' Doctrine		24%	56%	20%

The survey results indicate the faculty are mostly satisfied with the curriculum and level of attention paid to understanding Gray Zone conditions and hybrid warfare, rating the level of emphasis as 'about right'(56% for Gray Zone and 68% for Hybrid Warfare). However, a majority of faculty assessed that the PLA 'Three Warfares' Doctrine, and Russian 'Information Confrontation' were not being taught with adequate levels of emphasis (56% of responses rated the level of emphasis as insufficient for both). Only 52% of the USAWC faculty survey participants rated the level of emphasis on the PLA's Unrestricted Warfare as 'about right,' with 40% saying it was insufficient. These are the doctrines and strategies being employed in the competition phase by the nations listed in the NDS as America's top 2 adversaries (Mattis, 2018). The 'about right' ratings were not as strong as they should be, indicating the faculty believe there is room for improvement. These ratings point to clear gaps in the curriculum focus. The PLA 'Three Warfares' Doctrine best describes how the PLA is carrying out operations and activities in the Gray Zone against the United States and her Allies in the Pacific, while the

Russian Information Confrontation, a significant element of the 'Gerasimov Doctrine,' does the same for the European theater. It is very significant that the majority of faculty survey respondents saw the adversary concepts most related to the top two theaters of importance being underserved in the curriculum.

Answers to the last set of questions reinforced that faculty sensed a gap in terms of how well the curriculum was preparing graduates to perform in the real world. The table below summarizes responses to questions asking how well USAWC graduates would recognize the various forms of warfare and doctrines employed by our top adversaries.

Table 8

Faculty assessment on anticipated ability of graduates to recognize adversary forms of warfare.

Form of Warfare	Ability for USAWC Graduates to Recognize in Real World			
	Able to recognize	Somewhat able to recognize	Unable to recognize	Not applicable, USAWC not teaching this concept.
Gray Zone	61%	39%		
Russian Information Confrontation	20%	64%	8%	8%
Hybrid Warfare	42%	46%	4%	8%
PLA Unrestricted Warfare	28%	52%	12%	8%
PLA 'Three Warfares' Doctrine	4%	33%	42%	21%

The survey employed a set of questions to identify curriculum gaps regarding the forms of warfare that characterize the complex world and the current security environment by asking the faculty to assess how well they thought USAWC graduates would be able to recognize gray

zone conditions and conflicts, as well as adversary forms of warfare and doctrines in the real world. The one form of warfare that faculty believed its graduates would have the greatest difficulty recognizing in the real world was the 'Three Warfares' Doctrine of the PLA with 42% believing that students would be unable to recognize it, and 21% stating that students were not learning about the concept during their time at the War College.   The 'Three Warfares' Doctrine was the most significant gap in the curriculum identified by the survey instrument in terms of expected graduate job performance in the real world.

The survey asked USAWC Faculty to consider the work that USAWC graduates assigned to 3 and 4-Star HQs tasked with supporting the development of theater strategy and carrying it out in operations, and to assess the importance of these graduates understanding all the forms of warfare, concepts and operating conditions listed in the survey in relation to their job. With the envisioned role of the USAWC graduate being clearly understood to be at an ASCC, sub-unified, or CCMD, the faculty overwhelmingly (84%) saw these concepts, doctrines, strategies, and forms of warfare and operating conditions as 'very important' (44%) or 'important' (40%). This last metric is critical as we continue to examine whether USAWC graduates are adequately prepared to lead the development of theater military strategies, and their implementation in a theater campaign plan at 3 and 4-Star HQs.

Faculty Ability to Identify Curriculum Gaps. One respondent commented that the USAWC needs to identify and respond to blind spots in the curriculum and suggested, "I would focus a lot more on this gray-zone, hybrid competition that we are losing…its demonstrable that we've developed this blind spot."   Another faculty observation is that the broad strokes of the USAWC curriculum make it difficult to find specific gaps at the top level, and even in course directives. Simple word searches for concepts like Hybrid Warfare, Complex World, 'Three

Warfares,' Information Confrontation, etc., would return little evidence that these topics are being taught, although assigned readings and seminar discussions cover them.

In his interview comments, one professor explained that the USAWC does not follow the TRADOC learning model of Task, Condition, Standard to structure instruction that would specifically mention concepts to be taught. Also frequently mentioned during faculty interviews is that the method of delivery through the seminar offers enough flexibility to achieve change through instructor-guided seminar dialogue that is informed by the readings the faculty instructor assigns the students, and that the faculty instructor may select at the very last minute to take advantage of recent scholarship, journal articles, or policy/strategy announcements. A senior faculty member commented on the ability to make mid-course changes to the curriculum: "the course directors have great latitude in shaping [the instruction]. Even in mid-course they can change how they want to approach the topic. They've got that ability – they just have to work it out between the Department Chair and the Dean."

Faculty interviews revealed that many are confident in their ability to recognize a gap and to integrate new content in response to the complex world through the flexibility provided by the Seminar model of instruction to incorporate relevant information. As one faculty interview respondent explained:

> [F]eeding those seminar discussions with material to update the content of the
> curriculum, keeps us fresh. Even if the general theme, the title of the class or the title of
> the lesson may be the same as it was five years ago, the content of that discussion has
> remained relevant, current…these discussions that are recurring in seminar on a regular
> basis, so I don't think it can get more cutting edge than that..

Looking at internally-driven curriculum reform, one professor recalled an assessment conducted in 2012 by USAWC faculty, which was a gap analysis for both the resident and distance-learning programs that determined the USAWC core curriculum was paying insufficient attention to the economic instrument of national power. From this assessment, the faculty added a new lesson, "The International Environment: Global Economic Order," to the NSPS course, and a dedicated lecture "Financial Power" given by USAWC Professor John Troxell. The new lesson educates students to understand the rationale for the inclusion of economic interests in the NSS, the impact of America's relative economic power on the global balance of power, and the impact of major international economic institutions on the international system (USAWC, 2018l).

A more recent of self-initiated successful curriculum revision was in 2017 in response to the new edition of Joint Publication 5-0, *Joint Planning* (which provided new processes and formats for operational assessments), in response to new doctrine the War College dedicated an entire lesson to the topic, out of currently 33 lessons of the overall core curriculum of TSC, representing a significant change. Two faculty pointed to this as an example of how the USAWC was able to implement change within a year with a dedicated lesson so that it could be given more time and attention and taught as a specific subject. A faculty interview respondent explained that while the U.S. Army War College curriculum should unequivocally, "be aligned with the contemporary security challenges and prepare students to understand the contemporary security environment," he added "I don't think we should be reinventing the curriculum every single year" to respond to changes in the operating environment.

The USAWC also responded to a self-identified gap in the teaching of communications skills of Senior Officers. This gap was reflected in surveys of General Officers conducted by the

Army College in 2018, which revealed that General Officers in the field were looking for USAWC graduates to, "communicate clearly, persuasively, and courageously" (USAWC, 2018h). The logic is that strategic thinkers need to be able to communicate strategic guidance and assessments clearly to multiple audiences. The USAWC responded by implementing an entirely new set of 5 lessons, "Foundational Skills," which added to the front of the "Introduction to Strategic Studies" studies course. The new course directive is titled, "Foundational Skills, Introduction to Strategic Studies, and Strategic Studies Capstone" (USAWC, 2018k). These new, non-credit introductory lessons answer the calls from senior leaders to provide, "a foundation of academic skills to help students succeed in the remainder of the curriculum" (USAWC, 2018k, p. 1). Faculty also responded by increasing the requirements for writing assignments across the curriculum and instituted the requirement for a series of video-taped presentations, which are then shown to fellow students for critical feedback. This program is now being expanded to have USAWC students give a video-taped presentation of their Strategic Research Project, which is the culminating written assignment that supports the award of the master's in military strategy. On the other hand, several faculty remarked that they are not aware of any specific gaps in the core curriculum, and assess that the College is responding, and has responded, in a prompt manner, to senior leader guidance. Faculty point out that direction for change has to go through the Commandant, and that CSA Taskers and OPMEP requirements are well-known throughout the faculty.

Faculty Satisfaction with Current Strategy Education Curriculum. Faculty interviews revealed that many are very satisfied that the USAWC has developed a curriculum that achieves the right balance between student knowledge level, mandatory instruction to

comply with OPMEP and accreditation requirements, and Senior Army Leader guidance to

improve PME. As one faculty interview respondent explained:

> I think we had, and have, a very good curriculum designed on teaching the basics of
>
> strategy…its components, and its ways and means. And I think we do a really good job
>
> of teaching students on how to construct strategy, the test for strategy… Suitability,
>
> applicability, feasibility, and risk. Our readings and our writing assignments are tailored
>
> at ensuring that our students are well-versed in the basics of strategy. Formulation,
>
> construction, test. I'll also say that department [DMSPO] has implemented last year the
>
> strategic appraisal tool, which is an Army War College product that really gets at
>
> appraising the strategy, appraising strategies - our own or especially those of other states,
>
> or non-state actors. So, I think we do a really good job with that.

Survey responses and remarks from interview respondents point to clear gaps concerning

the forms of warfare, operating concepts/doctrines, and strategies being employed by the PRC

and Russia, the top 2 threats to the United States and her Allies as identified in the NDS (Mattis,

2018). However, several senior faculty remarked that they are not aware of any specific gaps in

the core curriculum, while others point to past efforts to respond to top-down driven

requirements to focus on issues of importance to the CSA and Joint Staff, or identified in GO

surveys, as proof of USAWC faculty can and does respond to curriculum gaps. Respondent

remarks in interviews also point to the complexity of the inter-connected nature of the strategy

education curriculum, and the opinion that the faculty is, "doing a good job" of teaching strategy.

However, the litmus test is whether the curriculum is supporting the Army Operating Concept of

'winning in a complex world,' as faculty survey responses and interview comments point to

curriculum gaps that result in USAWC graduates not having the full set of skills to win during the competition phase as staff officers at 3 and 4-Star HQs.

Knowledge Influence 5 (K5): Designing curriculum with the right learning objectives

USAWC faculty need to know how to design curriculum with the right learning objectives, that advances the learners' ability to apply the knowledge and skills learned, supported by practice strategies for effective knowledge transfer. Interviews and document analysis partially validated this knowledge influence as a potential cause for a performance gap. Relevant to the task of curriculum redesign, Krathwohl (2002) explained that the construction of educational objectives should describe intended learning outcomes in terms of specific subject matter content and, "a description of what is to be done with or to that content" (p. 213). The missing content must be identified for inclusion to achieve the clear goal of what USAWC graduates are tasked to do in the field. Based on best educational practices outlined by Krathwohl, the USAWC curriculum needs to include concrete learning objectives that support stakeholder and organizational goals related to the new security environment and to student outcomes in performance against the task of developing military theater strategies that inform the development of effective theater campaign plans.

The literature review in Chapter Two revealed that the USAWC was directed to revise curriculum in response to changes in the character of warfare, and did so successfully, as the review of the, "4 incarnations" of the War College recounts. Each of the 4 incarnations was in response to changes in the character of war and the threat. In this decade (2000-2019), the Army War College has revised existing, and designed completely new curriculum to respond to both external environmental challenges, and internal deficiencies in PME. The impetus for curriculum redesign or reform have come from both inside and outside the USAWC. An

example of the latter is how USAWC responded to the call from GEN Dempsey, while serving

as the CJCS in 2014, to the entire PME enterprise to develop, "agile and adaptive leaders with

the requisite values, strategic vision, and critical thinking skills necessary to keep pace with the

changing strategic environment" (Keister, Slanger, Bain, & Pavlik, 2014).

Faculty provided several examples of recent real-world curriculum changes in response

to gaps identified from outside the college. Such an example provided by a faculty interview

respondents was carried out in response to a direct tasking from the CSA, GEN Milley in 2016 to

the Army War College, to the strategic thinking skills of General Officers.   On March 22, 2016,

Gen. Mark A. Milley, "initiated formal steps to improve the effectiveness, efficiency and rigor

for General Officer professional military education," tasking Army War College, commandant

Major General William Rapp, to lead this effort (O'Donnell, 2017, p. 43). MG Rapp instituted

the Army Strategic Education Program (ASEP) at the War College and rebuilt general officer

education around four core courses: 1) ASEP-Basic (for brigadier generals); 2) ASEP-Advanced

(for major generals); 3) ASEP-Senior (for lieutenant generals), and; 4) ASEP-Transition for

retiring Generals. These courses, which started as pilots, were fully established within a year and

continue today, demonstrating that the USAWC can change PME quickly when it is important.

One faculty interviewee remarked that following Secretary of Defense Mattis' remarks

that 'PME was broken,' which included a call to teach more on theater campaigning, the

USAWC faculty took action:

> When I saw Secretary Mattis' memo on his admonishment against PME, about PME and
>
> the specifics of what he was talking about, campaigning, because that was one of his
>
> primary admonishments: "We need to teach campaigning more. I'm tired of talking
>
> about contingency plans, I want to talk about campaigning." As we looked at that, there

was a hole in campaigning. We didn't have a campaigning lesson prior to this year that

specifically looked at 'What does campaigning mean? How do we do it? Are we being

effective?' That kind of thing.

As a result of these changes, the TSC course now more explicitly addresses the theater campaign

plan, and campaigning in the competition phase.   The key take-away from these examples is that

the faculty responds well to change mandated from the chain of command, but is perhaps more

challenged with collectively identifying gaps, agreeing on the importance of those gaps, and

collectively taking action to modify the curriculum.

While past curriculum revision efforts in response to self-identified gaps, doctrine

changes, and CSA direction were positive, faculty expressed frustration with changes to the

curriculum that only added new content without removing any of the old content, as the

following interview comments from a faculty interview respondent demonstrate:

Because the students have an absorptive capability that we're already maxing out, or

close to maxing out, more information is not what they need. They need the right amount

of information and then time to reflect on it. In the past, attempts have been made to do

more and the results were way less, because the students couldn't reflect on it and then

they couldn't even respond to it, and eventually they were frustrated and disconnected.

The above observations explain in part, why some USAWC faculty are resistant to curriculum

change imposed from outside the college.

A significant factor impacting curriculum change identified by faculty interview

respondents was the need to maintain the College's accreditation status with the Middle States

Association to sustain the College's master's degree in military strategy.   One faculty remarked,

This is a Masters [degree] conferring university accredited by the Middle States [Association]. So to change curriculum there is a process and it involves a faculty council….You cannot make massive curriculum changes without going through a process that requires input from the faculty council…Before we conferred Masters [Degrees], that was probably not an issue.

The remarks above reflect faculty perceptions on how the requirements of accreditation for the USAWC Degree in Military Arts and Strategy impose constraints on the college's ability to undertake significant curriculum change in response to the challenges of the current security environment.

Synthesis of Results and Findings for Knowledge Influences

The forms of warfare, doctrines, and strategies employed by our adversaries make the current security environment incredibly complex. While there is no mention of these in the printed curricula, except for one elective DE2360, "Campaigning in the Gray Zone," faculty stated in interviews that adversary forms of warfare, doctrines and strategies are being discussed in seminar instruction. Surveys showed that USAWC faculty believe these forms of warfare, doctrines and strategies are important for strategy education, as all were primarily rated as 'very important' or 'important.' The concept of Gray Zone conditions/conflicts was rated the most important to learn, reflecting that the faculty recognized the challenges they pose to these CCMDs during the competition phase. USAWC teaching and research faculty have published research on Russian and Chinese strategies for the competition phase, demonstrating expert knowledge on these topics by the faculty who published these works. According to interview comments, faculty teaching ability for these topics varies widely, indicating that there is room for improvement to ensure that all USAWC Faculty are able to teach on these subjects.

The USAWC curriculum does include instruction on the development of theater military strategy and that students are taught how to formulate such a strategy in a practical group exercise, reflecting the work process in 3 and 4-Star HQs. The Theater Strategy and Campaigning Course has the majority of instruction and focus on this topic. Some USAWC faculty are indeed renowned experts in theater military strategy and have worked with CCMDs to help in their development.   Regarding theater campaign plans and campaigning, the USAWC TSC faculty literally 'wrote the book' on campaigning (Campaign Planning Handbook), that provides a useful job aid when graduates are working in 3 and 4-Star HQs USAWC 2018c). The interviews revealed that faculty acknowledge the importance of teaching students about the TMS, TCP, and campaigning. Adjusting TMS and TCP to respond to adversary actions and forms of maneuver in the competition phase was identified as an area for improvement.

Interviews revealed that USAWC faculty are looking for gaps in the strategy education curriculum and addressing them when found, within the limits of resources available and the latitude or authorities provided to make changes at their level.   The survey assessed faculty judgment on the level of emphasis currently paid to adversary forms of warfare, doctrines, and strategies. The PLA 'Three Warfares' doctrine, which the PLA successfully employs in Gray Zone conditions, was identified as having an insufficient level of attention in the curriculum. This gap was confirmed by following questions in the survey, the answers to which showed that faculty believed USAWC graduates would have difficulty recognizing PLA 'Three Warfares' doctrine executed in the real world. For USINDOPACOM, this is a daily challenge and is a form of warfare in use daily across the theater.   Faculty were nearly unanimous (93%) that these topics would be important for USAWC Graduates to know if they were serving in 3 and 4-Star HQs at the theater strategic level.

In interviews, faculty discussed their assessment of current gaps in the curriculum. Gray Zone, Hybrid Warfare, competition, and the various adversary forms of warfare, strategies and doctrines featured prominently, along with cyberspace operations, multi-domain operations, and others. However, many faculty expressed in interviews the belief that these gaps don't rise to the level of requiring a new lesson or major curriculum change to accommodate, and that these topics may be adequately addressed with assigned readings and seminar discussions. Many faculty interview respondents expressed great satisfaction with the current curriculum and saw no gaps that required a significant response in the same manner as the historical examples provided in Chapter Two, in order to respond to, and support the Army Operating Concept of 'winning in a complex world.'

In response to external tasking and directives from the Secretary of Defense (SECDEF), CJCS, and the CSA, the USAWC was prompt to act and make corrections to the curriculum. Although as analysis under organizational factors will show, the USAWC faculty did not perceive any task to change the curriculum in the Army University White Paper that called for change to 'win in a complex world.' Faculty interview remarks reveal an abundance of caution about over-reacting to gaps that are identified from outside actors, unless those actors can officially order them to change.

Although USAWC faculty do have much to admire regarding their strategy education curriculum, when examined through the lens of our current performance in the competition (peacetime) phase, there is room for improvement. As described in Chapter Two, Phase 0, now the competition phase, was developed to focus planning/operations to deter aggression, and shape the theater via preventive actions to proactively prevent problems from becoming crises (Rumsfeld, D., 2006). As shown in Chapter Two, there is sufficient evidence to show that the

U.S. is not winning in the complex world in the competition phase (Bebber, 2016; Tulak, 2016, 2019; Harris, 2018; Ratner 2019; Davidson, 2019a; Scaparrotti, 2019). USAWC faculty Antulio Ecevarria and Nathan Freier determined that current campaign planning model for the competition phase was inadequate to seize and maintain the initiative in the competition phase against hybrid threats confronting the CCMDs and recommended to the DoD to empower the CCMDs to employ more active theater campaign models (Echevarria, 2016; Freier et al., 2016). The new *Joint Concept for Integrated Campaigning* (VJCS, 2018), while not yet official U.S. Joint doctrine, provides the framework for such an approach. The need for such action was clearly articulated by ADM Phil Davidson, the Commander of U.S. Indo-Pacific Command in very recent testimony to the Senate Armed Services Committee explained that America's adversaries pursue their objectives in the Gray Zone, and that, "USINDOPACOM must compete in the 'gray zone' between peace and war," adding that his command would focus, "on competing and winning below the level of armed conflict" (Davidson, 2019a). Reinforcing the urgency of ADM Davidson's assessment, Patrick Shanahan, as acting Secretary of Defense, designated the Indo-Pacific as the DoD's priority theater (Shanahan, 2019). Accordingly, adversary concepts, doctrines, strategies and forms of maneuver, along with new (draft) friendly force operational concepts and organizational solutions that may be incorporated into theater military strategy and campaign plans to respond to the competition phase should be a prominent part of the curriculum of the USAWC.

Results and Findings for Assumed Motivation Influences

Motivation influences are considered validated as a possible cause for performance gaps if responses to interview questions demonstrate that faculty do not as a group have the proper level of motivation for action to: 1) see utility in making changes to the curriculum to support the Army Goal of 'Winning in a Complex World;' 2) have collective efficacy to ensure that theater

military strategy and campaigning are adequately taught in the curriculum, 3) see value in redesigning the curriculum to ensure USAWC graduates are successful in responding to the challenges of the complex world in strategic-level positions in the Army and Joint Force and; 4) believe that curriculum redesign efforts are worth the time and effort expended and are manageable. Alternately, if the faculty's motivation in these areas is high, then the influence is not validated as a possible cause of a performance gap, and may be seen as an asset. All four motivation influences were found to be possible causes for performance gaps as shown in the table below.

Table 9

Assumed Motivation Influences and Influence Categories

Organizational Category	Assumed Influence	Validated (gap)	Partially Validated (gap)	Not Validated (asset)
Utility Value	**M1:** USAWC faculty need to see utility in redesigning the strategy education curriculum to respond to the 21st century security environment to support Army goal of 'Winning in a Complex World.'	X		
Self-efficacy	**M2:** USAWC faculty, as a group, should have individual and collective organizational efficacy in theater strategy content and instructional or curriculum redesign to improve strategy education in support of the Army Operating Concept.		X	
Attainment Value	**M3:** USAWC faculty should see redesigning the curriculum to respond to 21st century security environment as a core component of their role as faculty in preparing student success and deterring war.	X		
Cost Value	**M4:** USAWC faculty should see redesign efforts as not too costly in terms of time and non-competitive with their current instructional load	X		

Motivation Influence 1 (M1): Faculty must see utility in redesigning strategy education to respond to changes in the security environment and to 'win in a complex world'

M1 addresses whether the USAWC faculty see returns on the effort necessary to undertake the hard work of redesigning curriculum to support the Army Operating Concept. and According to Ambrose, (2010), utility value represents the obtaining extrinsic rewards (e.g., praise, public recognition, promotions, high status jobs). With the many tasks that faculty must balance on a daily basis, interview comments revealed that curriculum redesign is in direct competition with the workload of teaching. The literature review reveals that USAWC has collectively invested in this effort, has published research on Strategy Education pedagogy, curriculum, and curriculum redesign, and has successfully redesigned curriculum in the past to respond to extant and future security threats. As the USAWC follows a philosophy of educating students on strategy in a broad approach, the faculty may not see a compelling need to change how the USAWC teaches strategy in the face of current threats of the 21st Century security environment. Some of the faculty interview respondents noted the USAWC publications focused on gray zone and competition already, "feed into the curriculum" by providing content that supports the seminar debates, although the decision to use these publications is left to the judgement of the course author.

Is Curriculum Change Necessary? T. Galvin (2018) explains that change efforts initiated from outside the organization, "may spur natural resistance from within the military rank and file unless leaders demonstrate full ownership" (p. 8). Interviews revealed that some faculty take issue with the statements of General Officers who have called for change in PME to better address the complex security environment, characterized by strategic competition below the level of armed conflict, to 'win in a complex world.' A theme expressed by some faculty

was that the current security environment, while challenging, does not require major changes to

the USAWC curriculum. One respondent, referring to the criticisms of War Colleges from senior

military leaders remarked that, "Maybe they don't have the problem they think they have" and

suggested, "some of the critics of the current curriculum might do better to come down and

experience the real deal and see if we are getting after it [strategy education]." Faculty also

question the assertion, made by senior military leaders that today's environment is more

complex: said one faculty member: "Is that true? Is it more complex? Is this any more complex

than my predecessor looking at the inter-war years between World War I and World War II?"

In regard to whether the current security environment challenges should be a driver for

curriculum change, not all faculty are convinced that the effort would be worth it. Some faculty

question that there is anything new about Gray Zone conflicts, hybrid warfare, 'Three Warfares'

doctrine and other recent concepts that would necessitate curriculum change, explaining that

America's adversaries have always sought ways to achieve asymmetric advantages. Faculty

reported in interviews that the recent guidance to the USAWC from the CJCS, the CSA, and the

Commandant for curriculum change as one respondent explained is not to, "win in the complex

world," but rather to "develop…strategic thinking skills and communication skills."

Changes in doctrine, or updates to Joint Education requirements from Joint Staff J7 are

seen by the USAWC faculty as stronger drivers for accomplishing change to curriculum than the

current real-world problems faced and articulated by the geographic CCMDs. The Joint Staff J7

is seen as the proper route by which changes responding to CCMD problems can be made in the

Joint Education requirements in the OPMEP, which are mandates the USAWC must follow. In

addition, several faculty observed that as long as the USAWC is a direct-reporting unit to the

Chief of the Staff of the Army, it will be more responsive to CSA-driven initiatives, than issues from the Joint Force not transmitted through the OPMEP process.

Why curriculum change is slow. The challenge to making big changes in the curriculum is the inter-connectedness of one course's content to another. One faculty interview respondent explained that

> [Y]ou can change stuff, but the second and third order effects are not as easy to manage as you would think, because we've built a really complex system and to provide an optimum amount of different challenges to an intellectually and career-diverse student body, so … every time you move something, there are second and third order effects….If you try to do revolutionary change, your probability of success is very low, and your probability of catastrophe from second and third order effects is not something I am comfortable with.

The remarks above demonstrate the complexity of changing curriculum that is taught across several departments within the College by professors and instructors with varied professional backgrounds and disciplines.

Within the structure of the current curriculum, lesson authors are continuously updating their lessons based on new developments in the field, in doctrine, in policy/regulations, and U.S. National Security/Defense/Military strategies. Many faculty interviewed were protective of the current curriculum and expressed the opinion that a major curriculum change could ruin a smooth-running operation that allows minor changes at the instructor level to keep apace of the environment. Curriculum change at the Army War College can be characterized as steady and incremental, and many faculty expressed concern that the inter-connectedness of instruction could be upended by change that is undertaken too quickly. Reflecting what T. Galvin (2018)

expressed as the "fear of 'breaking' the organization to fix it," one faculty expressed it this way: "You can break the system [of inter-connected instruction]. You could break this very easily, if somebody came in and said, 'this is how we're going to do it, and we're going to do it fast' you could destroy this very quickly."

Reflecting caution about the pace of curriculum change, faculty interview respondents described the curriculum reform process as 'incremental,' either from the perspective of defending a cautious pace of change, or calling for greater change. Providing an example of the former, one faculty interview respondent stated:

> At the War College it's [curriculum change] a static process. We know what we want to tell them [the students] and we make those small incremental changes. We do incremental improvements around here, the way you do incremental budgeting...We feel like we have the best curriculum ever and every time we do an incremental change, we're dropping off the bottom 5% and were adding the best next 5% to it.

When it comes to issue-specific calls for curriculum change from senior military leaders, such calls are seen by some faculty as disruptive. As one respondent explained:

> There are no significant inefficiencies [in the curriculum] that you are going to harvest, and there are a thousand issues out there, and somebody always comes and says we need to do more on issue X, but that's not really how the War College works. The War College produces people with senior leader skill sets and strategic leader skill sets, and they will deal with all the issues that they face as senior leaders.

These comments above reinforce T. Galvin's concept of the fear of breaking an organization while attempting to fix it, and the belief that the curriculum should not be changed quickly in response to external criticism about curriculum content.

Motivation Influence 2 (M2): Faculty individual and collective self-efficacy in redesigning strategy education to support the Army Operating Concept.

The USAWC faculty, particularly the Department of Military Strategy, Planning, and Operations (DMSPO) has the requisite knowledge and skills to expertly teach the development of theater military strategy and campaigning. As explained in the assessment of K2, this is a clear asset for the USAWC that provides a firm foundation for improving student performance in 3 and 4-Star HQs in developing TMS and the supporting campaign plan. However, M2 assesses whether the USAWC faculty is effectively redesigning or improving strategy education to better support the AOC 'winning in a complex world.' This motivation influence is only partially validated as the USAWC faculty interviews revealed consistent individual confidence in their ability to redesign curriculum, using their individual initiative, while also showing that there is less consensus on satisfaction with the college-level curriculum change effort, which is seen as a more daunting task, as described in the analysis of M1. As the analysis of K4, survey responses showed, faculty saw gaps in the curriculum related to understanding the changing character of war, exemplified in adversary concepts, doctrines, strategies and forms of warfare, that has led to the complexity of the current security environment. Survey responses also showed that faculty assessed these topics were not being adequately taught and that graduates would have a difficult time recognizing them in the real-world where they present challenges to 3 and 4-Star HQs.

Addressing the collective ability to effect change in the curriculum, faculty interview respondents expressed both satisfaction and dissatisfaction with the process and outcomes. USAWC faculty interview respondents describe the annual process for curriculum redesign as, "hard to wait for," and saw more value in making minor changes along the way, as these minor changes within the established curriculum are arrived at in a collegial manner with the inputs of

other faculty and administration. Describing efforts to improve curriculum at the instructor and

department level in a positive manner, one faculty member said that the College had a very, "flat

organization" that is focused on this task throughout the year, with faculty able to approach

administration with ideas to improve within the established curriculm.

Faculty in the School of Strategic Landpower expressed confidence in their individual

and collective efficacy in revising curriculum and course content in response in response to

changes in U.S. policy, military doctrine, senior leader guidance, and in the security environment

in terms of threats and adversary activities, capabilities, and strategies/doctrine.   One recent

example provided by faculty was the cooperative effort between DMSPO and Department of

Command, Leadership, and Management (DCLM) as they responded to the implementation of

the Joint Strategic Planning System (JSPS). In this instance faculty members in multiple

departments worked together to look for how this new system would affect instruction and

course content, and made changes to the course resulting in changes to specific lessons and

completely new lessons that would be implemented. A faculty interview respondent explained

that all lesson plan authors and course directors are engaged in a, "rolling curriculum

development," that is continuous throughout the year, with faculty refining their course content

and structure as soon as they are finished with teaching a component. Another faculty interview

respondent remarked during an interview that he was currently in the middle of planning his

program for the next year, while still teaching it. In order to make his instruction as realistic as

possible to prepare students for work at 3 and 4-Star HQs, this professor elected to use an actual

theater strategy from U.S. Southern Command. The foregoing examples demonstrate individual

faculty efficacy in revising course content and curriculum to better support the AOC.

Regarding the collective process for curriculum change, a faculty interview respondent provided a condensed description of the formal annual process of curriculum revision. He described the process starting with the Dean providing next year's curriculum guidance, followed by Course Directors leading their faculty teams to respond and prepare an updated plan that is briefed as a concept to the Dean for approval to continue refinement. According to this respondent, upon the Dean's approval, more detailed revisions are made, and the final product is prepared for the students. Once the course is finalized and printed, faculty still retain the ability to substitute readings in response to changes in the environment, to include doctrine, policy, and adversary threat picture. In addition to guidance from the Dean, several faculty mentioned in interviews that the College's proximity to Washington, DC, provides the benefit of frequent visitors from the Pentagon. As one faculty respondent describes this advantage, the USAWC faculty receives, "lots of help, like the Joint Staff sends Colonels and Generals here almost monthly to help us prepare, and the Combatant Commands are in continuous contact."

The examples above, and in Chapter Two, demonstrate the successes that the USAWC has accomplished with past curriculum change efforts. However, when it comes to making changes specifically in response to the AOC, the motivation is inconsistent. As analysis in M4 will show in the following pages, the USAWC faculty describe the task of curriculum redesign as being a difficult burden to manage alongside teaching and administrative duties, with impacts on the effectiveness of the process. Despite some positive individual assessment for the task of curriculum redesign, there is no recognizable and distinct effort to ensure that the current curriculum is fully supporting the AOC.

Motivation Influence 3 (M3): Faculty see curriculum redesign necessary for student success

M3 is focused on faculty motivation to redesign curriculum as a component of attainment value. Attainment value represents the benefit or satisfaction obtained from accomplishing a goal or task, which in this case is improving student performance in follow-on assignments where their work involves executing the AOC in the real world (Ambrose et al, 2010). This influence is partly driven by the organizational culture, but motivation to accomplish this task can be assessed as being either a gap or asset for goal attainment. The USAWC faculty should see redesigning the curriculum to respond to 21st century security environment as a collective capability and core component of their role as faculty in preparing students to successfully contribute to theater military strategies both for deterring war, and winning conflict.

This motivation influence was validated as a potential cause for a performance gap, as the analysis of M1 points out, several faculty do not believe that the current security environment is so complex that it should drive curriculum change. Interview responses indicate that several faculty believe that the USAWC's standard curriculum already properly prepares students for success in the current security environment. As one faculty interview respondent explained:

My sense is that the average graduate out of here, and I say average because you got some that are at the lower end and some at the higher end. And I think the average graduate out here is going to do a pretty good job, because I think in 10 months here, the totality of what they get here sets them up pretty well for exactly the kinds of strategic discussions that you're going to have in a theater about how do you set ends-ways-means, how do you look at risk, what are the tools that are available, what are the organizations that are available, how do you think your way through a problem ... I think they're set up pretty darn well coming out of here for all that.

Furthermore, faculty also assess that there has been no priority given to specifically preparing graduates to operate on the staff of a 3-Star ASCC or a 4-Star CCMD working on theater military strategy in the current complex security environment. As one faculty interview respondent explained, "Very few of them are going to a 3 and 4-Star headquarters and those kinds of things…that's kind of a set of tasks within the overall JPME II requirement." Out of the typical USAWC graduating class of 370, only 120 of them are Active-Duty Army Colonels, who are spread across the Army and Joint Force in various strategic-level positions. Accordingly, a faculty interview respondent explained, the curriculum emphasis is on continuity of focus on the essentials, rather than making changes:

> The strategic security environment is always changing, and in order for PME to serve its students well, it must be in a process of continuous updating and evolution to address the changes in the strategic security environment, while remaining anchored in the things that don't change: the nature of warfare, the theories that enable clear-headed thinking about warfare and strategy, the ideas of leading, operational art, and campaign design.

In terms of setting up students for success in their next job, faculty often remarked that only a small percentage of their graduates would be leading, or managing the development and implementation of TMS at a 3 or 4-Star HQs, where the complex task of winning in the competition phase is most acutely felt. These faculty point out that the graduates will fill a variety of positions across the Army and Joint Force, and so the instruction should provide a broad set of critical analytical tools for understanding strategic problems, rather than attempt to develop students to perform as fully-qualified strategists. These faculty also point to the effective liaison maintained between the USAWC and the CCMDs, in particular EUCOM and INDOPACOM, with specific DMSPO faculty maintaining that line of communication, which

includes spending time in those HQs to understand their operational challenges and bring those

back for the students to examine in the TSC scenario exercise and in regionally-focused

electives.

The faculty of the DMSPO are teaching theater strategy via the TSC curriculum that

forces the students to struggle with the complex problems confronting INDOPACOM and

EUCOM with two specific planning scenarios that every seminar will tackle, choosing either a

Baltic nations scenario focused on the Russian threat, or a South China Sea scenario focused on

the Chinese threat. This effort is done in a group setting to take advantage of students' previous

operational assignments, as well as the inputs from the International Fellows. In this manner, the

faculty believe they are effectively testing the students' abilities to apply what they've learned

over the course to master the skills and knowledge necessary to build, or at least contribute to the

building of a theater military strategy and campaign plan.

Motivation Influence 4 (M4): Faculty see curriculum redesign as having proper cost value

M4 is focused on cost value, or cost belief, which is conceptualized in terms of the

perceived amount of effort needed to succeed, cost of the emotional investment, performance

anxiety, fear of failure, loss of time, energy and other opportunities available (Eccles, 2006;

Eccles & Wigfield, 2002; Hirabayashi, n.d.). Applying this theory, the USAWC faculty must

appreciate the return on investment, or value, of a redesigned strategy education curriculum that

better prepares USAWC graduates to address the concepts, doctrines, strategies and forms of

warfare presented by adversaries that characterize the 21st century security environment as they

contribute to developing effective theater military strategies. The USAWC faculty generally

view redesign efforts as being too costly in terms of time and as being in competition with their

current instructional load. Interview responses from several faculty validated this influence as

having an impact on goal attainment. Several faculty interview respondents characterized the official curriculum redesign or change process as being too time-consuming and difficult.

Time requirements for curriculum redesign. Part of the challenge of changing or updating curriculum is the development of individual lesson plans and course directives for new requirements, which one respondent characterized as taking, "a tremendous amount of time," and being, "really quite hard." A   professor with experience in other institutions reported during his interview that the faculty at the War College who must write the lesson plans are not given a reduced teaching load to compensate for the administrative task of curriculum change. Another faculty interview respondent commented that for those faculty who are also expected to contribute in the areas of scholarship (publishing, speaking engagements, etc.) in support of the Army and the Joint Force, as well as perform service to the local community, the workload of curriculum review and change can be difficult to manage.

One faculty interview respondent described the curriculum redesign process as, "glacial" and, "calcified,"and made these comments on the process:

> It's burdensome and its slow. I don't know if its necessarily so. If we were a little more comfortable with the ambiguity that we live in and taught a little bit more like an academic institution. Every profession's institution of education, whether you're a lawyer, or a doctor, or the Army War College, has this tension between the theory and practice and the evolution of practice, like the cutting edge stuff of the practice…I think the organization would benefit by adapting some of the cultural practices of the academic institutions, so they're not near as concerned with quality control of being able to take a lesson plan, or a course, from one faculty member handing to another and having them repeat it…doing that replicability validation. At our level, I don't think that replicability

validation is warranted…We are so enamored with being able to replicate content in each of our seminars and in our curriculum, that it is difficult to accommodate change with that formal part of it. We mitigate that by allowing a lot of flexibility in the delivery, but I don't think at this level that we need quite as much rigor in standardizing the curriculum.

Respondents were asked to describe the workload on faculty to participate in the curriculum review and refinement process. One remarked, "…the course authors and lesson developers have got a huge burden" supporting the process, explaining:

[A] reason is you've got a cadre of faculty that are experts in their field and we all have an opinion…you have to socialize all that stuff [proposed revisions], and then because of that quality control piece, you've got to convince the faculty to teach what it is that you just wrote. So it is a huge burden to do it, and do it with appropriate rigor, and bring in the right readings to lay it out in an adult learning style to where you're doing it through the Socratic method of asking question and developing the faculty notes and the points you might want to make, or if the conversation goes this way, or that way, how you can bring it back on track, or show the other side of something. That's hard enough, but then to socialize that with the rest of the faculty who all have an opinion on what you wrote about, or many of them will have an opinion that is different than what you laid out, there are the two sides what you think and what you emphasize. That's tough, that's probably the toughest role there is here at the War College.

The interview remarks in the paragraphs above characterize curriculum redesign as challenging, burdensome, requiring change, and slow, all of which negatively affect faculty motivation to engage in this process.

Shortage of personnel impacts curriculum redesign. The lack of depth of instructor faculty makes the burden of curriculum redesign more acute. A faculty interview respondent described this challenge:

> I know every other organization cries for more, but I mentioned that we have one instructor per course for each seminar, right? You want some of this other stuff done? You want some of this looked at? There has got to be some slack, there has got to be a few [faculty] 'on the bench,' or something that they can do some work, they can update products, they can think about, 'What do we do next year?' kind of stuff.

Another faculty interview respondent also commented on the shortage of faculty and its impact:

> I will use the Navy War College as an example. They have two instructors for every seminar, two for every seminar! We have one with a very limited bench, if somebody gets sick or goes down for some reason, we do have some people we can pull in to actually carry that workload. But if we were to have…a bench of 12, for example, and that's not even two to one [instructor to seminar ratio], that's one and a half to one, I think that would allow us to be able to divide the curriculum development, research, writing the scholarship…and be able to stay abreast of some of the currency things [keeping up with defense and security issues] that we, I don't want to say we neglect, but we have to do episodically, that don't necessarily provide all of the currency that we could have.

Another faculty interview respondent suggested that reducing the teaching load would free up time for better curriculum change and redesign, and specifically supported reducing the number of students in each seminar to 12. This of course has organizational impacts and would also drive a requirement for at least 8 more faculty. These observations point to a lack of resources

impacting faculty motivation and seeing curriculum reform as having the proper cost value,

making this a likely gap impacting attainment of the proposed organizational goal.

   Faculty effecting change in the classroom. Faculty consistently report that the process

for curriculum change at the USAWC is too slow, describing it as, "fairly stable." One faculty

interview respondent remarked: "It's too slow for me, it's a little too bureaucratic for me, it's a

little too much trying to make it all fit for a standard, consistent delivery." The AY2019

Curriculum Guidance explains, "the dominant theme for AY19 will be continuity" and

acknowledges that changes from the previous year were, "modest" in scope (USAWC, 2018d,

pp. 1 & 8). Accordingly, many USAWC faculty seek to make change in the classroom, rather

than in the curriculum, to ensure they are keeping apace of changes in the character of warfare

and trends in the DoD. A faculty interview respondent explained that, "There's a lot more

flexibility that is given to a professional teaching faculty. They do let them deviate." Various

methods are available to course directors and faculty to bring new concepts into the curriculum

to include guest speakers to present their views and then participate in the seminar or to address

the student body in lectures given in the large halls. Frank Hoffman is cited by USAWC faculty

interview respondents as an example of a well-known expert on the topic of Hybrid Warfare,

who was invited to bring that topic into the classroom and lecture hall.   Faculty also exploit the

talents and experience of the students who come from a variety of disciplines and professional

assignments and combat or operational tours of duty to provide lessons from their own

experiences dealing with the complex world. All these methods introduce subjects without

making any changes in the course syllabus. Recent topics introduced in this manner include

Multi-Domain Operations, which is a key concept for overcoming adversary A2/AD strategies,

but was not yet published doctrine when introduced to the students.

Faculty initiative to effect change in the classroom independent of organizational curriculum redesign efforts likely have a positive effect on motivation, but are limited to those individuals who are successful in making these changes. From an organizational perspective, changes made across the College will have greater impact. Faculty interview remarks on the difficulty of the task, slowness of the process, need for change, and need for greater personnel resources, are likely not offset by individual initiative, thus validating this motivation influence as a possible cause for a performance gap.

Faculty assessments of the cost value of curriculum change addressed in the foregoing pages demonstrate they are sufficient to negatively impact faculty motivation, and therefore are a possible cause for a performance gap to accomplishing the proposed organizational goal. Faculty interview respondents 'zeroed in' on the difficulty of the task of contributing to curriculum redesign, the slowness of the process, the lack of adequate personnel resources, and the requirement for improvement of the process as negatively impacting motivation for the task.

Synthesis of Results and Findings for Motivation Influences

Motivation Influence 1 (M1) was validated. The USAWC faculty is not united in opinion that the changing character of war and the complexity of the current security environment, resulting from aggressive adversaries who are carrying out hybrid warfare and other asymmetric means of military action in the competition phase merit changes to the USAWC curriculum. Many expressed the view that only minor changes are necessary, if at all, and that such change would be incremental. One obvious difference between the successful external calls for change, and those in the AU White Paper and Strategic Plan, is that those calls for change that the USAWC acted upon came from the SECDEF, CJCS, or the CSA, while the requirements for change found in the AU White Paper signed by Commanding General of Combined Arms Center

(Brown, 2015), and the strategic business plan for AU signed by the Commanding General of

U.S. Army Training and Doctrine Command (Perkins, 2015).

Motivation Influence 2 (M2) was partially validated. USAWC faculty interviews

revealed consistent individual confidence in their ability to redesign curriculum, using their

individual initiative, while also showing that there is less consensus on satisfaction with the

college-level curriculum change, which is seen as a more daunting task.   Survey responses

showed that faculty saw gaps in the curriculum related to understanding the changing character

of war as exemplified in adversary concepts, doctrines, strategies and forms of warfare that

define the current security environment. Survey responses also showed that faculty assessed

these topics were not being adequately taught and that graduates would have a difficult time

recognizing them in the real-world where they present challenges to 3 and 4-Star HQs.

However, the faculty could not point to any specific curriculum change addressing this gap.

Motivation Influence 3 (M3) was validated as interviews revealed many faculty did not

believe much, if any, revision of the curriculum was necessary to respond to the complex world.

Many USAWC faculty believe that the current curriculum already prepares graduates for success

in strategic positions, however, no specific priority is given to preparing officers to serve in 3 and

4-Star Commands. Accordingly, while TMS and TCP are taught, and faculty believe that the

level of attention accorded to these topics is sufficient, these are the real-world problems

preventing the United States Army and Joint Force from winning in the complex world in the

current operations phase of peacetime competition. Faculty are quick to point out that all

students learn about TMS and TCP, and participate in a scenario for group examination focused

on real-world threats facing EUCOM and INDOPACOM. The faculty believe that they are

adequately testing the students on what they've learned in the TSC course and could contribute

to the development of a TMS. Accordingly, the faculty do not see attainment value in

redesigning curriculum to prepare students for success in the 3 and 4-Star HQs facing these

problems daily.

Motivation Influence 4 (M4) was validated through faculty interviews.   USAWC faculty

assess that significant curriculum change is hard, time-consuming, and competes for time needed

to conduct scholarship, community service, and family life. Many described the formal

curriculum process as burdensome, slow, and suffering from the requirement to ensure,

"replicability of instruction" from one seminar to another as the lessons are taught by professors

assigned one to each seminar. The most frequently used words to describe the process are,

"slow," "hard," and "incremental." Faculty generally made changes in the instruction in-stride to

keep student reading assignments and materials and focus current, and then made incremental

changes within their departments in the annual curriculum updates.   Faculty interview

respondents explained that insufficient time and heavy workload associated with curriculum

redesign are linked to insufficient faculty manpower. Faculty explained many reasons why it is

hard to change curriculum, which explains the resistance that external calls for curriculum

change seek to overcome. Members of the USAWC faculty are very proud of the inter-

connected curriculum they have developed, which distributes faculty effort to achieve program

learning objectives across many courses and reinforces knowledge transfer. The USAWC faculty

interview respondents explained that the process of curriculum change is slow and, "hard to wait

for," and that the faculty are ready to make changes under their own authority as lesson writers

and course directors. Making incremental change within those authorities is seen as a

collaborative and collegial undertaking.   Faculty expressed confidence in their individual ability

(efficacy) to revise curriculum and course content to keep up with changes in doctrine, policy

and in the security environment. Mandates or tasks from the CSA and Joint Staff for curriculum

changes appear to be stronger drivers for change, than those issued by TRADOC, such as the AU

White Paper, or AU strategic business plan, which seem to have had much less discernable

impact.

Results and Findings for Organization Influences

The assessment of organizational influences examine whether the USAWC: 1) has

established [and is communicating] goals, policies and procedures; 2) is providing necessary

resources, and; 3) is reducing obstacles to the faculty to support the TRADOC goal of harnessing

PME to accomplish the Army Operating Concept of 'winning in a complex world.' As a college

that is also a military organization, its members, the faculty and students, can be expected to fall

in line behind clearly established goals, policies and procedures, as the culture of the military

places a premium on loyalty and followership. Accordingly, the organizational priorities and

cultural model set by the leadership will be acknowledged and acted upon by the faculty.   Senior

leadership intervention is required to carry out change that establishes or reinforces a culture

model that embraces change to modify learning objectives, instructional design in response to

changes in the environment, or tasking from higher authorities (Kelly, 2008). The Army War

College acknowledges that it serves an Army, "that must constantly change to adapt to emerging

threats and their associated new mission sets" (USAWC, 2018m, p. 1-1). To carry out its

mission, the USAWC must provide needed resources, while simultaneously reducing obstacles,

to support Faculty efforts to carry out curriculum re-design to accomplish Army goal of 'winning

in a complex world.' Inherent in this obligation is identifying and understanding what those

needed resources and obstacles are. This section seeks to identify both. As a military

organization, the USAWC must set and communicate clear organizational goals to achieve Army

and TRADOC goals of 'winning in a complex world,' and improving PME to respond to the 21st century security environment.

Summary of Organization Influence Findings

Chief among the major findings for organization influences is that the USAWC has not established a goal that specifically links strategy education to the Army Operating Concept of 'Winning in a Complex World' and the TRADOC goals articulated by Generals Brown and Perkins to demonstrably improve PME to support the AOC. Uneven acknowledgment of the need for change to strategy education curriculum was acknowledged as a performance gap. The influence of Army culture was found to have an impact on the USAWC learning objectives linked to the AOC, and to the College's approach to curriculum change, and that the USAWC culture may pose obstacles to curriculum change to better support the AOC. The inter-connected nature of the USAWC strategy education curriculum means that the whole college must be involved in revising it.   Improving academic rigor was identified as a solution to improving student success in follow-on assignments.

Army and USAWC policies were found to be causes for performance gaps. Talent management policies were identified as sources of both obstacles and possible solutions to improving curriculum, instruction, and student performance. The current model of the career-long Officer PME was identified by faculty as contributing to performance gaps, while proposed changes held the promise of feasible solutions.

Resource constraints also presented gaps to attaining the proposed organization goal. Time available to the faculty for curriculum review and instruction was identified as an obstacle to both. Faculty manning levels were identified by faculty to be a cause for performance gaps, while improving faculty selection, faculty development, and retention held promise for feasible

solutions. The lack of officially approved doctrine to explain the competition phase, and the impacts of adversary concepts, doctrines, strategies, and novel forms of warfare on the current security environment was identified as a cause for performance gaps. Classroom and building infrastructure shortfalls were found to contribute to performance gaps.

The absence of a clearly articulated goal likewise interferes with the USAWC's ability to lead the Strategy Education Community of Interest to improve strategy education across the Army University to support the AOC. Competing tasks and priorities from superior HQs makes it difficult for the USAWC to set clear goals for integrating the AOC and other concepts that would improve the performance of Army and Joint Force operating in the competition phase.

Faculty unfamiliarity with TRADOC goals for improving PME to support the AOC were identified as a source of current performance gaps. The current structure of surveys from General Officers in the field on the performance of USAWC graduates have not included any particular focus on the performance of USAWC graduates in the complex world during the peacetime competition phase at 3 and 4-Star HQs.   Finally, the emphasis on improving the performance of USAWC graduates in the development of theater military strategies and campaign plans executed at 3 and 4-Star HQs has not been acknowledged as a means to achieving the AOC during the competition phase. Table 10 on the following page provides a summary of the validated organizational influences.

Table 10

Assumed Organizational Influences and Influence Categories

Organizational Category	Assumed Influence	Validated (gap)	Not Validated (asset)
Organizational Cultural Settings	**O1:** USAWC must establish goals, policies and procedures in line with achieving the Army goal of 'winning in a complex world' (reinforce a culture model that embraces change to modify learning objectives, instructional design, and content focused on theater strategy development for the 21st Century security environment).	X	
Organizational Cultural Settings	**O2:** USAWC must provide resources/ reduce obstacles, to Faculty efforts to carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'	X	
Organizational Culture Settings	**O3:** USAWC must consistently communicate clear organizational goals to achieve Army goals of 'winning in a complex world,' and TRADOC goals of improving PME to respond to the 21st century security environment.	X	

Organization Influence 1 (O1): USAWC must establish goals, policies and procedures in line with achieving the Army goal of 'winning in a complex world'

Assessment of this influence examines cultural settings at the USAWC, and efforts to establish formal organization goals in support of higher Army goals for PME to facilitate 'winning in the complex world,' to include reinforcing an organizational culture that embraces change to modify instructional design and curriculum content. According to Clark (n.d.), organizations, schools, and agencies are specific types of cultural settings and are characterized by one or more cultural models. Culture and context are key factors that need to be understood in order to manage learning and performance outcomes (Clark, n.d.; Seli, 2018). The influences

of culture and context can either positively or negatively impact individual and organizational

outcomes (Rueda, 2011).

Army War College Publication 3556, *How the Army Runs,* addresses the difficulty of

implementing change in the Army: "Changing large organizations with well-developed cultures

embedded in established bureaucracies can be incredibly difficult. People in organizations like

the Army with functioning, complex systems and embedded processes tend to resist change or

cause change to become more evolutionary" (Yuengert, 2017, p. 1-1). As an organization of the

U.S. Army, this principle may explain resistance to change in curriculum at the USAWC. As

discussed in Chapter Two, resistance to change in military organizations is common (Schein,

2004; Kelly, 2008; Pape, 2009). Having the right organizational culture to facilitate change is

critical. Policy options to start or sustain change include those that could be implemented within

the organization under its own authorities and resources, as well as Army level policy changes

that would support the USAWC mission. This section provides findings related to organizational

influence #1 (O1).

Impact of Army Culture in Changing Curriculum. Chapter Two captured several

examples of how the extant culture of the Army at any particular time in the last 50 years has had

negative impacts on the teaching of strategy (Gerras et al., 2008; Cohen, 2015; Bryant & Urben,

2017; Ogden, 2017). At the end of the Cold War, a debate raged in the U.S. Military about

developing forces specially organized and trained for non-combat, peace-support operations, and

other tasks (Downing, 1994, Tulak, 1996). The culture of the Army at the time was strongly

opposed to such changes and believed that if the Army was trained to carry out the most complex

high-end warfighting against an enemy like to the Warsaw Pact Armies in Europe, then it was

more than capable of adjusting on the fly to accomplish missions of 'lesser complexity.' This

way of thinking eroded over the Post-Cold War years of humanitarian operations, peace support

and peace enforcement, and in recent years, counter-insurgency operations (COIN). While the

Army has regained much of the COIN expertise it had developed during the Vietnam War, many

believe that the Army has now forgotten how to fight major theater war (Barno & Benshael,

2018; King, 2018).

GEN Mark Milley, as the CSA, has stated that the Army and Joint Force must shift focus

from the counterinsurgency operations of Afghanistan and Iraq, to sustained major theater wars

against enemies with equal or near equal capabilities, primarily the militaries of Russia and the

PRC (Kreisher, 2016; Myers, 2017, 2018). The threat of a major theater war has returned as the

DoD public affairs reports that, "long-term, strategic Cold War-style competition has re-

emerged," and that places emphasis on lethality for warfighting (Lange, 2018), as well as

effectively countering adversary moves in the competition phase (VCJCS, 2018). Faculty

interview respondents have identified this culture dynamic, and a current focus on preparing for

major theater war, as a possible impediment to increasing attention and teaching time to focus on

gray zone conflicts, adversary warfighting concepts and doctrines that characterize the current

security environment. While the AOC, 'winning in a complex world,' clearly applies to the

competition phase, it also most certainly applies to the crisis and conflict phases that might

include major theater war. Approaching this issue from another perspective, one USAWC

professor stated during an interview that the Army's culture is focused at the tactical level, where

tasks are usually not ambiguous. These cultural positions within the Army argue, faculty say, for

a slower approach to curriculum change that keeps it a broad and high level, thus allowing

faculty to bring in current topics within the established curriculum that changes slowly and

works within established doctrine rather than evolving concepts and theories.

What guidance is the USAWC receiving about 'winning in a complex world'?

Aspects of an organization's culture may support or conflict with the observable and known policies of an organization (Schein, 2004; Seli, 2018). Schein (2004) provides numerous examples of where the extant culture model can resist senior leader directives to move in a new direction, demonstrating that organizational culture can be an obstacle to achieving organizational goals. If an organizational goal is not aligned with the dominant organizational culture, then that culture presents an obstacle to goal attainment.

A senior faculty interview respondent explained that the USAWC has not received any specific guidance from TRADOC or the CSA on what it needs to change, or what revisions to the curriculum focus are necessary to 'win in a complex world' following publication of the Army Operating Concept and Army University White Paper and the Army University strategic business plan. In addition, the USAWC faculty report that the College has received only positive reviews on the quality and capabilities of its graduates sent out to the Joint Force and Army HQs to work at the strategic level in surveys of active-duty General Officers in the Field. USAWC Graduates are also surveyed on how well the USAWC curriculum prepared them for success in their follow-on assignments to strategic-level positions, and these surveys also indicate great satisfaction with the USAWC curriculum. However, this faculty member explained that there is some evidence in faculty evaluation of the students while at the college, which can provide indicators of where the student body may not be fully achieving program learning objectives. As this faculty member explained:

> So when we looked at, for example, oral comprehensive exams, we come in and the
>
> faculty grade each student, how well they attained or displayed each one of the program
>
> learning outcomes, and one of those is tied to campaign planning. So when I looked at

the data from two years ago (2016), everyone did okay. But of all the learning outcomes,

the one that was way lower than the others was the ability to translate national policy into

workable campaign plans.

The same respondent then discussed survey data from Generals and alumni:

And we ask again, across all of our learning outcomes, how would you rate our

graduates? And one of those that is rated lower is back to the campaign planning. So

there's a piece of evidence that shows, again it is an acceptable level, it's still rated very

high, but it's an area that isn't as high as the others. Again, is it because we don't have it

right? I don't think that's the case. I just think…that to do it right is really, really hard,

and you [as a student] are not going to become an expert while you are here.

According to the faculty, the current guidance and directives from Army leadership is not calling

for any specific changes to the Army War College Strategy Education Curriculum related to

'winning in the complex world.' The Joint Force has its own channel for communicating

requirements to the Joint PME enterprise via the Joint Staff J7, and so far, interview respondents

say, the Army War College has not received any calls for improvements to the Strategy

Education curriculum from the Joint community or even from communications channels from

the CCMDs through its liaison efforts that are focused on TMS, TCP, and the competition phase.

The USAWC Academic Year 2019 Curriculum Guidance provides goals and objectives

to be achieved via a strong curriculum. This document provides the USAWC's organizational

mission, Commandant's vision and intent, and assessment from June 2018 that informed the

detailed guidance to faculty. The Commandant's Intent statement explains 'what success looks

like' and lists three key attributes for the USAWC to achieve: 1) providing strategic leader

education and development of national security professionals; 2) serve as the, "center for

strategic thought for the Army," and; 3) to provide, "practitioner support" to the Joint Force and the Army by maintaining a staff and faculty, "that can deliver Joint Force and Army expertise in the global application of land power" USAWC, 2019, p. 3).

The USAWC 2019 curriculum guidance does not specifically mention any goals focused on responding to the calls of senior leadership for improved PME in connection to the AOC, nor does it specifically highlight the concept of Strategy Education. It also does not specify to what degree the core curriculum should prepare USAWC graduates to be effective strategists or strategic planners. As one faculty interview respondent explained the current state of affairs, "A lot of these students will graduate here with some knowledge of strategic thinking but nowhere the depth that is needed to become true strategic thinkers." Among the many open-ended comments from General Officers who participated in the 2018 GO Survey was this one on the Army's strategy education: "Strategy is almost exclusively performed as a Joint responsibility; the Joint Senior Service Colleges currently have a better handle on getting their students to understand it and get skilled in it" (USAWC, 2018h, p. 30). This statement demonstrates that the War Colleges have different priorities, but also points to an area for possible improvement for the Army War College. One senior faculty interview respondent explained that given the time constraints (10 month curriculum) and the Army's demand signal for a well-rounded USAWC education, the College simply cannot produce strategists:

> We're not making them experts in it, but in their role as a senior leader or senior adviser, what do they need to know about JOPES [Joint Operations Planning and Execution System]? What are the essential elements? ... So, I think that what we'd rather have is someone leading a planning effort [who] is not an expert, perhaps, in any one thing, but knows in general terms 'How do I determine risk?' 'What are we looking for at the

theater [level] as far as what is the anticipated end state?' 'What is a reasonable approach

or not?' … And I think this is some of the frustration I've seen out of the senior

leadership [in the field], is we don't have people who are really skilled at developing a

military campaign plan and all that it entails, and understanding all the different element

that not just the joint services bring, but [also] the inter-agency partners, and now

synchronize that in a way that we get synergistic effects on the battlefield, or your

operating space if it's Phase Zero [peacetime competition].

The foregoing observations reveal that while senior leaders in the field are frustrated at the lack

of Staff Officers arriving with the skills to develop theater military strategies and supporting

campaign plans at 3 and 4-Star HQs, and that campaigning is an area for improvement in the

curriculum, there are no clear objectives or goals published by the USAWC to address this area

of weakness that impacts the Army's ability to carry out the AOC across the spectrum of

conflict.   According to the AU strategic business plan, such guidance will come from the CSA:

"the Army War College will receive direct guidance on its missions and strategic educational

requirements from the Chief of Staff of the Army" (Perkins, 2015, p. A-1). However, in the

same document, General Perkins explains that, "The Army University creates the learning

environment required to produce agile, adaptive, and innovative leaders across the Total Force in

support of the Army Operating Concept" (Perkins, 2015, p. 3). The USAWC is a college of

Army University, and so the guidance in the AU White Paper and Strategic Plan applies to the

USAWC.

Learning Objectives Addressing the Complex Security Environment. The TSC

learning objectives do in fact emphasize the 'complex environments' faced by CCDRs,

demonstrating that the USAWC faculty see this as a priority (USAWC, 2018b, p. 18). Faculty

interview respondents were all asked to identify the most important of the concepts, doctrines and strategies covered in the survey worthy of increased attention in USAWC curriculum. The majority of the interview respondents highlighted Gray Zone, hybrid warfare, competition below the level of armed conflict, and hyper competition as areas requiring a higher priority, and many added cyber operations, space operations and multi-domain operations. Only two of the faculty highlighted Russian Information Confrontation, as one of the top three issues. Interview responses correlate well with the survey responses on the priority of Gray Zone, but hybrid warfare was rated higher in interviews than the survey results. Addressing this question of prioritization, one respondent stated that, "China and gray zone would be my top answer." This respondent also highlighted the need to simultaneously balance these topics with the sometimes competing priorities of very senior military leaders. This respondent provided as examples General Dunford's emphasis on the changing, "character of war and strategic landscape" that is directly connected with the gray zone and both Chinese and Russian actions (Dunford, 2018), and remarks by the Chief of Naval Operations, ADM John M. Richardson, emphasizing the return to great power competition (Kreisher, 2019), explaining that both needed to be addressed in a balanced manner.   With a focus on Gray Zone challenges facing the CCMDs, one faculty member expressed optimism that the War College was improving its efforts to prepare students to work effectively at 3 and 4-Star HQs: "…are we intellectually preparing them, to step into a staff and be able to think at that high strategic level about multi-domain battle and challenges in the maritime, in the Indo-Pacific Asia environment? And the answer is, I think we're almost there. We're getting closer." Formally establishing USAWC curriculum goals and learning objectives for the competition phase would support the AU strategic plan goal of adapting to the novel challenges in the operating environment and preparing to 'win in a complex world.'

Integrated Core Curriculum. A consistent theme across the interviews with USAWC faculty was the importance of the Adult Learning Model in developing strategic thinkers. Writing for the Journal of Military Learning, Meinhart, (2018), explains that the adult learning approach, "inspires one to learn very deeply on wide variety of complex subjects and their associated challenges" and allows learners to create, "insights that will be deeply ingrained into one's thinking so they can be implicitly or explicitly applied to address these complex challenges students will face upon graduation" (p. 76). Achieving this level of ingrained thinking process requires iterative exposure and attention to topics throughout the ten-month USAWC curriculum.

Accordingly, strategy education topics are not covered in a single course, but are touched on repeatedly over many courses taught by different departments. The USAWC curriculum guidance for the 2018/2019 academic year explains that, "the core curriculum provides a common framework within which the courses build upon and reinforce each other…[to] provide continuity of thought and meaning for students throughout the year," with each course touching to some degree on the overall learning outcomes. (USAWC, 2018d, pp. 14, 15). All of the USAWC faculty interviewed highlighted that Strategy Education was not 'owned' by any one department, and that all carried part of the load for teaching strategy. As an example, the Strategic Leadership Course (SLC) has 18 lessons, of which one, Lesson 8, Understanding the Competitive Environment, is clearly part of the strategy education curriculum. The description for lesson 8 in the Course Directive explains the importance of environmental scanning as a skill for the senior leader to understand and stay abreast of changes in the competitive environment in order to, "facilitate continued organizational effectiveness in a competitive world" (USAWC, 2017h, p. 31).

Another example is the National Security Policy and Strategy (NSPS) Course that is taught simultaneously with TSC. The purpose of the NSPS course is, "to develop senior military and civilian leaders who understand the art and practice of policy and strategy formulation and implementation in achieving U.S. national security objectives in the contemporary security environment" (USAWC, 2018l). The NSPS course sets the foundation for all following strategy instruction and links national level security, defense, and military strategies to the strategies developed at strategic-level military commands, such as ASCCs and CCMDs. The course introduces the Army War College's, "Strategy Formulation Framework" as a tool that students will use for several courses in the college, and in their follow-on assignments.   NSPS complements lessons in the following USAWC courses: Introduction to Security Studies (ISS), Theory of War and Strategy (TWS), and Strategic Leadership Course (SLC). (USAWC, 2018l). The NSPS course provides students with the conceptual tools they'll need in three core courses: Theater Strategy and Campaigning (TSC); Defense Management (DMC), and; the Regional Studies Program (RSP).

Yet one more example of how the strategy education curriculum is distributed across departments is the Defense Management Course (DMC), which follows TSC. The assigned reading for DMC includes the *Joint Operating Environment 2035: The Joint Force in a Contested and Disordered World* (JOE 2035) so that students can develop skills to interpret changes in the OE, such as adversary capabilities, concepts and doctrines, in support of joint planning (CJCS, 2016).   As the DMC Course Directive explains, Lesson 5, Strategic Requirements connects to the theater military strategy and campaigning, as it, "focuses on how the Combatant Commanders assess their capability gaps and gain required capabilities needed to execute their Theater Campaign Plans..." (USAWC, 2017i).

The inter-connected nature of the strategy education curriculum ensures better student outcomes as students are exposed to core concepts across multiple courses which is known to enhance knowledge recall (National Academies of Science, Engineering and Medicine, 2018, p. 99). However, as discussed earlier in the analysis of motivation influence #1, this inter-connected approach also complicates curriculum redesign for strategy education, reducing faculty motivation to undertake it. Overcoming this challenge may require additional resources to enable the faculty to more readily undertake the effort.

Seminar as the key delivery vehicle for Strategy Education. The USAWC curriculum policy guidance for the 2018/2019 academic year explains, "the seminar group will serve as the center of academic activity. Courses and lessons will use the seminar mode of instruction and adult learning model as much as possible, (USAWC, 2018d, p. 8).   The same curriculum guide directs the faculty to employ participatory learning as the primary learning methodology, "whenever possible," and that, "instructional methods should promote student contributions" (USAWC, 2018d, p. 15). Over the course of interviews, responses to specific questions about where and when particular topics relevant to the complex security environment and competition were taught, invariably the seminar group was listed as the delivery means over the core curriculum. One faculty interview respondent explained that the seminar provides the vehicle for curriculum change in execution that the formal change process does not:

Because we have an adult learning model, we'll certainly incorporate these conceptual and national debate and professional debate items within the dialogue of the seminar. But what goes into the curriculum has got to be mature. So you teach doctrine, you don't teach concepts or good ideas. And so, there are formal processes, and this is good, it brings discipline to the program. The overall structure of the curriculum is very much

driven or informed by that which has been vetted. But the discussions that go around that

is what keeps the thinking fresh.

The individual initiative of USAWC faculty is key to bringing in emerging and evolving friendly

and threat concepts and campaigning in the competition phase. However, the issue of reliance

on doctrine as the test for what should be taught limits curriculum redesign, and puts a greater

onus on the faculty to exercise judgment on how to bring in emerging friendly and threat

concepts and campaigning in competition. This reinforces Lieutenant General David Barno's

observation that the U.S. PME curricula fails to implement evolving concepts, such as the novel

forms of warfare characterizing the 21st century security environment, and has largely ignored,

"the evolving threats in the world" (cited in Ogden, 2017, p. 51). Among the JPME learning

objectives in Learning Area 2 is the requirement for students to, "evaluate how theater strategies,

campaigns, and major operations achieve strategic goals across the range of military operations"

and for students to, "evaluate key classical, contemporary and emerging concepts,

including…doctrine and traditional/irregular approaches" (CJCS, 2015a, p. E-E-2, emphasis

added).

Army's 2015 Vision statement calls for a culture of learning that promotes

experimentation with new ideas unshackled by doctrine, to find solutions to complex problems

and to seize unforeseen opportunities (HQDA, 2015a, emphasis added). The Army War College

acknowledges that it serves an Army, "that must constantly change to adapt to emerging threats

and their associated new mission sets" (USAWC, 2018m, p. 1-1, emphasis added).   The

guidance makes clear that these topics (adversary concepts, doctrines, strategies and forms of

warfare, campaigning in competition) should be incorporated into Field Grade PME.

Army War College organizational culture impact on curriculum reform. Interview questions dig into the influences of culture in facilitating or stifling such efforts. Faculty comments in interviews highlighted organizational culture that is sometimes resistant to change. One professor remarked:

> The faculty are trying [to achieve curriculum change] but you have an old guard here and change is difficult, and you have people wedded to the way they've done things…they get wedded to their courses. They get wedded to their way of thinking. It's a challenge to be revolutionary, and this ['winning in a complex world'] might need revolutionary change.

Faculty descriptions of the curriculum change process as slow and cumbersome also reflect on the culture of the USAWC that has permitted the process to become unwieldy.

Talent management policy. Successful talent management helps an organization to achieve its goals and objectives (Anwar, Nisar,Khan1, & Sana, 2014). The Army's Talent Management Strategy, like the Army University Learning Strategy, is designed to support the Army Operating Concept to 'win in a complex world' (McConville and Wada, 2016). The AU strategic plan includes actions related to talent management of AU faculty and students. Among the actions focused on faculty in the Army's Talent Management Strategy are the following: 1) "Develop an 'end-to-end' faculty development program.." and; 2) "Develop a talent management assessment strategy to support faculty development" (Perkins, 2015, pp. 7–10). Faculty development is also a component of the Army Human Dimension Strategy, under Line of Effort 3, Institutional Agility, Supporting Objective #3.2. Education, which seeks to increase educational effectiveness and agility, in part through faculty development, in order to, "prepare Army Professionals to succeed in complex environments" and to develop Army professionals,

"who adapt and win in the complex world of 2025" (Odierno and McHugh, 2015, pp. 9 & 12). Talent management was also emerged in faculty interviews as an area where improvements to strategy education might be achieved.

Focusing on the faculty talent management policies, a faculty interview respondent suggested a solution, which is to ensure that Army Officers teaching at the War College are given Joint Credit for their time at the College. Joint duty credit is a requirement for promotion to General Officer and is seen as a certification that can improve the officer's promotion potential. Air Force and Naval Officers teaching at the Army War College are awarded joint credit for their time at the USAWC, but the interview respondent explained that Army policy does not permit it. According this respondent, addressing this policy oversight could improve recruitment of talented and experienced Army Officers to join the College as professors of practice, so that they can accomplish that important career milestone educating the Army's senior leaders. Talent management policy for Students is a component of the AU strategic plan, which includes an initiative to, "Grow Qualified Students" for Army schools and colleges calls for leveraging talent management, "to identify and prepare students for learning opportunities," and to, "develop an application and acceptance process similar to civilian graduate programs for selective levels of PME" (Perkins, 2015, p. 9). Attainment of this goal would result in students arriving at the USAWC with greater aptitude for learning.

Faculty identified in interviews that talent management policies for students could help to ensure incoming students were prepared to perform well academically, and that graduates were fully prepared for their next job after the War College, as strategically-minded professionals. A faculty interview respondent suggested a change in policy for determining students' follow-on assignments to the HQs of ASCCs, Theater Army, Joint Task Force (JTF), or CCMD, that

would better focus those students to properly prepare for their role in supporting the Theater

Strategy and TCP while at the College.

Faculty explained in interviews that attempts to refine the curriculum to produce strategic

thinkers have been hampered by the Army's talent management process that does not select

strategic-minded personnel to attend the war college, but rather selects Officers who have

demonstrated mastery of tactical level skills. These faculty members explained that the current

selection for the War College selects officers who are operating at the pinnacle of tactical

mastery, but may not have spent much time developing their operational and strategic level skills

through personal efforts or military education programs. This is not a new phenomenon, the

Armed Forces Journal explained in 2009 why attempts at reforming PME usually fail:

> They will fail, because the services will not be able to attract the brightest and groom
>
> them through proper schooling for positions of responsibility unless the intellectually
>
> gifted are rewarded with selection for promotion and command. Unless intellectual
>
> excellence is tied to the services' personnel systems, true reform is impossible…. **Our**
>
> **system of professional military education produces too few officers capable of**
>
> **understanding and dealing with the complexities of war at the strategic level**. We
>
> have too few of these officers because the services tend to accelerate the careers of
>
> officers who, early in their careers, show talent at the tactical level of war. (AFJ, 2009,
>
> emphasis added).

As one senior member of the SSI faculty described, the shortfall is not offset by

individual self-development, because there is no clear signal or reward for them to do so:

> Part of the problem for the senior service colleges is that you have individuals coming
>
> here that have been tactical thinkers their entire career. Very few of them have developed

their own professional reading geared towards strategic thinking. In fact, many of them

have no idea what strategic thinking is when they come here.

A few faculty pointed out that many of the Army's budding strategists who don't transition to

Strategy Functional Area (FA 59) are often weeded out in the selection process for promotion in

their primary career field before they have an opportunity for selection to the War College. The

Army University strategic plan suggests a more stringent approach to selection of students for

AU schools and colleges that would need to be coordinated with the Army Talent Management

Strategy, namely, improving the identification and preparation of students for academic success,

and implementing a more rigorous acceptance process, "similar to civilian graduate programs for

selective levels of PME," which would assuredly include the USAWC (Perkins, 2015, p. 7). The

following section identifies other ways to improve student performance in Field Grade PME.

Implement strategy education earlier in officer's career to prepare for USAWC.

Faculty reported in interviews that may of the U.S. students coming to the USAWC have not had

operational assignments above the Division level and have not been exposed to the strategic level

of war/operations, or to strategy development at the National and Theater levels, and have spent

their entire career at the tactical level. The faculty assessed that current Officer PME is not

providing sufficient preparation for officers to learn how to think strategically over the course of

their pre-USAWC career. Forsythe (1992), emphasized, "The Army cannot afford to wait until

War College attendance to lay the foundation for leadership at the strategic level. The

foundation must be established early on in the officer education system and must be built upon at

each subsequent educational level" (p. 45). General John Galvin emphasized the need to develop

strategic thinking in junior officers to prepare them to one day perform at the strategic level: "We

need young strategists, because we need senior strategists, and we need a lot, because when the

time comes, we need *enough"* (J. Galvin, 1989, p. 4). Hibner (2016) identified that Strategic-

Theater Headquarters, such as the CCMDs, Sub-Unified Commands, ASCCs, and JTFs:

> require joint master operational planners that are the product of a program to develop
>
> them throughout their careers to meet the planning challenges of the future. As
>
> environments grow more complex, the only way CCMDs will keep pace are through
>
> planners who enable commanders to understand the strategic-operational environment
>
> and make sound decisions. (p. 3)

The AU Strategic Plan specifically addresses this, and calls for developing an Army culture that,

"values career-long learning" and delivers learning to students, "in advance of need," which

speaks to the need to prepare students to excel at their next resident or distance-learning course

(Perkins, 2015, p. 5).

Keister, et al., (2014) documented this shortfall, pointing out that in the U.S. military,

"officers receive the preponderance of joint education at the O-4 to O-6 grades and beyond" (p.

66). This lack of previous exposure to strategy education, the interviewed faculty explained,

requires the curriculum to focus on getting all students up to the same starting level to understand

the basics. Faculty interviewees have suggested that if strategy education were started earlier in

an officer's career, students arriving at the USAWC would already be performing at a higher

level, and the instructors could raise the bar of performance. Appropriate topics for instruction

that could be introduced earlier included critical thinking, scanning the strategic environment,

broad appreciation for military history, political science, and international relations to help

officers mature their understanding of the strategic environment as they go up through the ranks.

As one faculty explained in an interview: "If you want to get after this stuff…the cognitive

aspects of an individual, the research that this team has done says 'this takes a decade or more',

which would be right, exactly what the War College faculty said, it's too late when they get here. They have to start developing these competencies much earlier in their career." Another faculty interview respondent said it this way:

> So, if the United States Army War College is the office of prime responsibility for strategic thinking and strategic education, we do that after we get officers at the senior O-5 and O-6 level. I would argue that strategic thinking, just like critical thinking, just like being able to communicate, is something that is a lifelong career progression. So, we need to at least introduce junior officers to strategic issues and critical thinking ideas early on in their career, instead of that being first addressed here at 18 to 20 years of service.

More than a few faculty members commented that the officers coming to the War College were for the most part only one or two assignments away from retirement, meaning that the Army's return on investment for USAWC strategy education would be short-lived. These faculty suggested that elements of the USAWC strategy education curriculum should be introduced earlier in the Field Grade Officer career, with additional instruction at CGSC as one suggestion. As one senior faculty interview respondent explained, educating officers to develop military campaign plans is an effort that needs to start before students arrive at the Army War College:

> How do you really do that? That is a skill that's learned. It's not learned in 10 months, so that needs to start before people get here, and then we continue to develop it, and it's continued to be developed after they leave…It's really you start at Leavenworth [Command and General Staff College], if not sooner…. so if you start developing those skills somewhat at pre-commissioning, either at ROTC or the military academy, you're

not making strategic advisers out of anybody there, but you're just starting to develop these skills, and you have a culture that at least accepts it, if ideally encourages these types of behaviors. We don't wash them out early…and then now, when they get here, you've already got the raw material, the foundation has been laid… They're not being exposed to it for the first time when they get here. Now we're continuing to refine it, and then after they leave here, there are systems, and maybe it's distance learning or other experiential things that are available to help hone that skill where if someone does find out, 'I'm going to be a leader of a planning effort in a Combatant Command, gee, I wish I'd paid more attention during TSC' he can go back and get honed up on those skills there without having to go through a lot of effort. That would be ideal.

Faculty in the Department of Distance Education have proposed the Pershing Certificate Program as a way the USAWC can provide introductory strategy education to Senior Company Grade (Captains) and junior Field Grades (Majors) to

> …fill that gap, junior field grade, senior company grade folks that have to operate in strategic roles, operational strategic roles specifically, where they have to have some strategic mindedness about them, which are the things you hear the chairman talk about, the change in environment and why we need to change professional military education, complexity, globalization, all those things…

Completion of the proposed 36 week program (four certificate courses, eight weeks each) would result in the award of a USAWC Certificate in Strategic Studies (2018m). Delivery would be offered in a combination of online (primary means) with optional hybrid delivery that would include offering resident sessions at the USAWC or by sending mobile training teams (MTTs) to supplement online learning with face-to-face instruction (USAWC, 2018m). Like the popular

Defense Planners Course, this program is being proposed for approval and resources. The new

faculty requirements for this program include 3 Full-time (Title 5) positions: 1) Program

Manager, 2) Ed Tech, and; 3) Institutional Support (USAWC, 2018m).

USAWC adoption of this program would immediately put the college in a delivery mode

to the right grade of officers who are nearing that phase in their career where they could find

themselves assigned to 3 and 4-Star Army and Joint Force HQs. The proposed course would

educate leaders on critical thinking in real-world situations, the contemporary concepts

influencing national security and warfighting; joint planning; formulation and assessment of

security strategies, and; processes used to develop and implement security policies to name just a

few. The four 8-week courses are (a) critical thinking and decision making, (b) security strategy

and policy, (c) security issues in today's world, and (d) strategic warfare electives (USAWC,

2018m). Faculty interview respondents reported that a similar proposal was made in 2013, but

was set aside due to the budget cuts that followed implementation of sequestration in accordance

with the Budget Control Act of 2011.

The literature review and document analysis revealed that the USAWC has made

significant efforts to form the Strategy Education Community of Interest (SE CoI) to build a

strategy education curriculum that would provide structure for Officer PME Strategy Education

Curriculum across the 4 cohorts of Army personnel (Officer, Warrant Officer, Enlisted, and

Civilian) and for each the 5 levels of PME for these cohorts[2] (Valledor, 2015). The USAWC

hosted the Strategy Education Conference, September 22-24, 2014 at Carlisle Barracks, with 22

organizations forming the initial SE CoI (Valledor, 2015). The initial focus of this conference

---

[2] The five levels for Officers are: 1) Pre-commissioning (military education received at Academies, ROTC and Officer Candidate School); 2) Primary – education received at Grades O-1 through O-3; 3) Intermediate – education received at Grade O-4; 4) Senior – education received at Grades O-5 or O-6, and; 5) General – education received as a General Officer or Flag Officer. See CJSC, 2015a, Appendix A to Enclosure A.

was on enabling a distributed education of strategy across the Army education enterprise, now

known as Army University (Valledor, 2015). This first conference resulted in a common

definition of 'Strategy' for the SE CoI, a common appreciation that each level of PME would

contain courses that support strategy education, and developed the foundations of the strategy

education framework (Valledor, 2015). More recently, the USAWC hosted the Strategic

Education Symposium, bringing together the SE CoI to, "develop cohort/rank specific execution

recommendations" to the Army Learning Coordination Council (ALCC) General Officer

Steering Committee (GOSC) in October of the same year (USAWC, 2018n).   More work, and

better communication on those efforts, are necessary to ensure that all USAWC faculty are

conversant on efforts to establish effective strategy education curriculum for the Army.

Organization Influence 2 (O2): USAWC must provide resources/ reduce obstacles, to

carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'

Wong and Gerras (2015) found that multiple tasks competed for the time and attention of

Army leaders, resulting in sub-optimal mission and task accomplishment.   With so many

demands, the USAWC faculty must be provided the necessary time and other resources to

effectively carry out curriculum re-design to accomplish Army goal of 'winning in a complex

world.' Resources to enable change are always a concern, whether the impetus for change

comes from outside or within the organization itself. Most of the tasks the Army War College

has received from senior leadership were not accompanied with resources to carry them out, and

initiatives for change developed within College must compete for funds against already

established and running programs. As T. Galvin (2018), explains, "military organizations are not

ordinarily empowered to change their mission and available resources without authority of their

parent organization" (p. 38). The resource challenge for curriculum change is very important, as

changes may require increases in personnel, facilities, services, as well as other costs to the

organization such as opportunity costs for other focus areas. This section provides the findings

for Organization Influence #2.

Insufficient time available to teach in detail on the forms of warfare and conditions.

Time is a limited resource that the USAWC faculty must use wisely, as the length of the REP

academic year cannot be increased due to the needs of the operational force to keep FG officer

duty positions filled. In his study of Army Officer Professional Military Education system

reform, COL Lewis (2006) argued that the Army should provide, "time for an officer to obtain a

graduate level education" and that such an education, "can serve to fill the gap created by 15 to

20 years of experience at the tactical and operational level of Army commands" (p. 3). Filling

this gap in the 10-month duration of the REP is a challenge. Faculty interview respondents

explained that the required subjects consumed almost all available instruction time, making it

difficult to add more time to such topics as adversary concepts and doctrines that characterize the

complex security environment and campaigning in the competition phase. Faculty expressed a

desire to have more time devoted to their particular course, so that they could add back in

relevant and important content that was taught in the past, but had to be removed to make way

for adding content driven by the JPME II requirements.   One faculty noted that adding in the

JPME II content added 12 weeks' worth of instruction, but without extending the standard 10-

month academic year. As another faculty interview respondent explained:

> Where I think we could improve. It's interesting, a year seems like a long time to educate
>
> officers, or ten-month curriculum seems like a long to educate officers, but after you get
>
> through teaching the basics of everything that's required by JPME, not just strategy, but
>
> defense management, strategic leadership, the National Security policy and strategy,

theater campaigning. After you teach all of those requirements there's precious little time left over to get into the specifics of, 'what is the PLA 'Three Warfares' Strategy?' 'What does Russian hybrid warfare look like?' And so, I think we get into those, but perhaps not to the degree that we should, again, being limited by time.

Another faculty professor explained that the faculty is challenged to, "pack in" all the requirements for the master's degree in military arts and strategy into a 10-month curriculum that also must fully address the requirements imposed by the Joint Staff requirements expressed in the OPMEP. Faculty revealed that a significant investment was made to, "level the academic preparedness of students" at the start of the academic year, as many incoming students have not yet attained a master's degree and lack the research, studying and writing skills that are required.

As several faculty interview respondents explained, a two-year course could produce certified strategists, however this is a greater investment for education than the Army can support, as it must send some graduates back into operational-level assignments. A senior faculty member interview respondent added that while he would very much like to have the ability to run a multi-year program, "the resources simply aren't there to do it," which include sufficient classroom space, and the prohibitive cost to the force to keep officers in school longer, and out of the line and in the field. If the REP cannot be lengthened, then perhaps the Army War College could find other ways to introduce strategy education into an Officer's career at the time when he or she needs it for the next position. The USAWC already runs other educational programs that develop certified strategists (Defense Strategy Course [DSC] and BSAP) outside the REP for younger Field Grade Officers, and these may be scaled to increase the number of graduates.

The USAWC faculty are challenged to optimize the 10-month curriculum for the REP students, while simultaneously conforming to JS J7 OPMEP requirements, and maintaining accreditation as a master's degree granting institution. The demands of the operational force for officers to return to units, means that follow-on education in strategy would be costly to readiness and would therefore be limited to special programs. While a 2-year War College would produce strategists, the demands of the current security environment for mission-ready forces does not permit keeping officers out of the operational force for a second year. The USAWC does provide other education programs that are producing strategists and strategic planners, and these can be scaled to better support the execution of the AOC at 3 and 4-Star HQs where the U.S. is confronted with complex threats during the competition phase.

Need to reduce obstacles to timely curriculum redesign. Among the obstacles confronting faculty with updating curriculum to address the changing security environment is the absence of official doctrine that explains it authoritatively. As one faculty member remarked, "If the Joint Force doesn't know what competition below armed conflict is, because we don't know what it is… you are not going to directly teach that to the students." Another faculty member remarked that were he, "King for the day," his top priority for improving education on the current security environment would be to have doctrine explaining Hybrid Warfare and how our adversaries conduct it, rather than, "digging around for articles" in defense journals and web logs to introduce in class readings. This faculty member advocated for the full implementation of the Joint Concept for Integrated Campaigning (JCIC) as formalized doctrine, "as fast as possible." The Army's Human Dimension Strategy addresses this in Key Task 1E: "Living Doctrine," which seeks to, "publish Army Doctrine in a learner-centric and interactive format that is adapted to the way people learn in a digitally-enabled society and ensure it is available to the

user at the point of need" (Odierno and McHugh, 2015, p. 13). Even when doctrine is published, some faculty expressed caution over, "shifting the rudder" too quickly regarding curriculum change. As one faculty interview respondent explained, it is often a re-packaging of concepts with new terminology, and that the enduring quality of the current curriculum is intended to ride through such change. He explained that the faculty is quick to read the latest articles, Joint and Army publications, and other sources and integrate those concepts inside the existing curriculum during the execution of the school year, essentially as in-stride curriculum refinement via assigned readings and classroom discussions.

A good example of in-stride response to higher guidance is how DMSPO responded to Joint Staff J7 tasks to teach a new concept of warfare developed by the Chinese known as Systems Confrontation, System Destruction Warfare, or Systems Attack Concepts, which has been an important topic to both USEUCOM and USINDOPACOM and is explained in a recent RAND report (Engstrom, 2018). Despite not having any official doctrine available at the appropriate classification for seminar instruction (information must be unclassified and releasable to the International Fellows), the DMSPO team found a way to work it into seminar instruction without changing the curriculum. The RAND report details the PLA version of 'information confrontation," which is considered a key component to any military operation. The USAWC effort to include this in instruction is a good example of how the USAWC can respond to clear senior leader and Higher Headquarters guidance and direction.

Many faculty interview respondents highlighted the obstacles of changing curriculum as a zero-sum equation to bring in new content. One respondent explained:

One thing that is a challenge to innovation within the curriculum is, nobody ever wants to

take anything out, and so you have to find trade space to put new ideas in or take

curriculum themes that are associated with the fields of new ideas and incorporate the

lessons of those new ideas in. It's very difficult to cut things out completely in order to

make room for something like a completely new course or a completely new lesson

within the curriculum.

Another view expressed by faculty on the resource of time as perhaps being the major limitation

is, that it requires clear prioritization of what to teach, and to what level of student performance.

As one professor explained:

I think 10 months could be enough [time], but obviously, something's got to give. I

would say we're probably in a zero-sum game, and so, what do we want to do with their

time? I would go back through it [the curriculum] and 'rack and stack' everything and

prioritize…That's how I would attack it, because I think time is our most precious

resource.

The prioritization of what to teach would follow from having clear goals and objectives,

and a clearly established alignment of multiple goals/objectives/tasks coming from the JSJ7,

CSA and TRADOC. The 2015 Army Learning Model called for, "maximizing the effectiveness

of limited resident learning time," which will require new approaches (Perkins, 2015, p. 15).

Implementation of the Army Human Dimension Strategy (HDS) living doctrine, (Odierno and

McHugh, 2015), and implementation of the Army's 2015 Vision statement that called for a

culture of learning that promotes experimentation with new ideas unshackled by doctrine, to find

solutions to complex problems (HQDA, 2015a) will help to improve instructor and course author

flexibility at the USAWC. Instructors need more flexibility to teach threat concepts, doctrines,

strategies and novel forms of maneuver, even if U.S. military doctrine can't explain them.

Resourcing faculty-centric solutions. The faculty expressed a common theme of being spread too thin to manage the workload of teaching, along with other tasks. As one senior faculty remarked, "We need more depth, so if we're designed to teach 24 seminars, having 24 faculty members doesn't give you a whole lot of depth to get people out and surveying the environment, to bring those ideas back into the curriculum. Where are the resources we need?"

Another faculty-centric solution is to improve faculty selection. One faculty interview respondent remarked that the War College should be more selective in the faculty recruitment, through changes in Army personnel policy and talent management practices. The AU strategic plan already addresses this and calls for recruiting policies that would, "support a combination of stable, expert civilian faculty and operationally experienced, quality military leaders" (Perkins, 2015, p. 9). For the military, or practitioner faculty, a recommendation provided by one faculty interview respondent is to get officers who have, "been exposed, as an academic, to multidisciplinary research writing," and who have had enough career broadening experiences and assignments, that they are competitive for promotion. On this point, the faculty interview respondent recommended the USAWC should, "Bring in Brigade Commanders [as faculty], or you bring in O-6's who are pre-brigade commanders, but they're on that [promotion] track, and they leave here to become competitive and get promoted, it is much more likely that the students that are here are going to listen to what they have to say."

Faculty development focused on improving expertise and thus, quality of instruction was also suggested as a solution set. One faculty interview respondent suggested permitting more of the 'seasoned faculty' to get 're-greened' [Army slang for improving one's professional knowledge and experience] by serving on temporary duty as a member or advisor to the staff of an ASCC, CCMD, or Army Futures Command to get fresh experience at the strategic level. The

USAWC is already doing this on a limited basis, but the program could be expanded with

additional resources.   Doing so might require additional faculty to cover the temporary absence

of faculty participating, but would benefit the College by having its faculty rotate 'into the field'

and bring those experiences back to inform instruction and curriculum. This approach would

burnish the credentials of the retired military faculty who would get the opportunity to improve

their currency in strategic issues and have more credibility with the students, while also

expanding the networks of potential speakers and research opportunities at supported commands.

This suggestion is not new, it was well and fully articulated in a 2015 article appearing in the

Joint Forces Quarterly in, "Extending the Shelf Life of Teachers in Professional Military

Education (Pierce, Gordon, and Jussel, 2015). The authors recommended that the War Colleges,

"should actively seek and resource PoP [professors of practice] engagements with joint planning

or policy development organizations for an extended period" (Pierce, Gordon, and Jussel, 2015,

pp. 63, 64).

The AU strategic plan supports the approach above as an action to be carried out under

the initiative of producing relevant curriculum.   This initiative calls for AU colleges and schools

to, "seek, assimilate, and promulgate operational feedback," which is to draw lessons and

experiences from the operational force, which for strategy education would be the 3 and 4-Star

HQs supporting the CCMDs (Perkins, 2015, p. 8). This also supports another initiative of the

AU strategic plan to, "develop policy and a process to facilitate faculty collaboration and

exchanges" (Perkins, 2015, p. 8). The Army War College is already doing this with faculty

supporting EUCOM and INDOPACOM, and these efforts could be scaled up. Several faculty

mentioned in interviews that EUCOM and INDOPACOM have dedicated liaison faculty who

have provided direct support to both commands on-site. As a faculty member explained in

interview, that when these professors travel out to the HQs of USEUCOM, USINDOPACOM,

TRANSCOM, et al., they are:

> putting our curriculum to work and…explaining theater campaign planning, developing
>
> strategy for Phases Zero through Five…putting that to work…taking the theoretical and
>
> putting it into practice and seeing what works and what doesn't' work. And when he
>
> comes back now, I guarantee you…he has at least an informal discussion, if not a formal
>
> trip report…of 'here's were design works or doesn't work. Here's what we're seeing
>
> with campaign planning as we're getting ready to update the curriculum….So they take
>
> that into the classroom, so what [they have]…found while they are out, that now becomes
>
> part of the curriculum or of the methodology for how we teach that curriculum.

In one recent case, a faculty member travelled to USINDOPACOM, where he helped to write the

theater strategy that was ultimately adopted and implemented. This kind of recent experiential

expertise is then shared with other faculty to improve the TSC course content on developing

theater military strategy and campaign plans.

The faculty-centric solutions just reviewed require some combination of additional

resources and a reduction of obstacles. The resources required include additional time for

faculty to accomplish all assigned tasks, which could be provided by having additional faculty to

spread the burden. Additional resources are required, to include additional funds for salaries and

programs. Reduction of obstacles can be accomplished in the arena of talent management policy

changes. Adopting a more flexible position on doctrine will allow faculty more latitude on

curriculum design and course content. Expanding other education programs provided by the

USAWC beyond the REP and Distance Education Program (DEP) would provide more

strategists and strategic planners to the Army and Joint Force with other educational programs.

Improving academic rigor. One of the obstacles to more effective strategy education is the level of rigor that may currently be applied. As discussed at length in Chapter Two, the challenges of the current security environment demand greater rigor in strategy education (HQDA, 2012b; Kelley & Johnson-Freese, 2014; N. Murray, 2013b, 2016; Riley, Hatfield, Freeman, Fallesen, & Guntier, 2015; Goldich, 2012; Ricks, 2012, 2013a, 2013b). In interviews, USAWC faculty discussed the current limitations on imposing rigor in the current approach to the curriculum.

Some faculty commented on the need to improve the rigor of student performance and the demands from instruction. Said one respondent, the number of students not graduating is, "a very minor portion, very, very few of them even get recycled during the course." One of the challenges identified by several faculty interview respondents to achieving greater rigor in the instruction is the lack of strategy education received by USAWC Students prior to their arrival at the USAWC. Faculty remarked that this gap means that instruction must, "bring everybody up to the level playing field," because many students are limited by their background in tactical assignments as many of them have never worked in 4-Star CCMDs, the Pentagon, or at an ASCC. As one faculty remarked: "You have guys that come all the way up to Brigade Command and have never done anything above division [level], maybe have not even been on the division staff. That's not strategic, and so they have to be brought up into the discussion at a level that is up one or two [tiers] with in the Army structure."

The AU Strategic Plan calls for, "increased academic rigor and relevance as one of 3 lines of effort (LOE) to better harness PME in support of the Army Operating Concept (Perkins, 2015, pp. 7-8). The AU adopts the definition of academic rigor from The Rigor/Relevance Framework proposed by the International Center for Leadership in education, which is based on

the dimensions of higher standards and student achievement, and, "encourages movement to

application of knowledge instead of maintaining an exclusive focus on acquisition of

knowledge" (Jones, R., 2002, p. 4).   The concept defines relevance as, "the application of

knowledge, concepts, and skills to solve inter-disciplinary, real-world problems," which makes it

a good fit for the challenges of the complex 21st Century security environment (Perkins, 2015, p.

7). The 2017 Army University learning strategy states that the Army should develop rigorous

and relevant learning content that is tied to desired performance outcomes in the operational

context in which Army leaders will operate (Kern, 2017).

College and classroom infrastructure. Many faculty commented on the restrictions that

the current infrastructure, that is to say the school building and classrooms, imposed on

instruction, and its effects on teaching and learning the strategy education curriculum. As one

professor interview respondent remarked:

> [R]ight now we are in a building that was designed for seminars with 12 people, and we
>
> have 16 in each one of them…Are 16-person seminars the right size first off? And if
>
> they're not the right size, does that require a different number of rooms to accommodate
>
> the through-put which is currently required of us?...if you change the number of seminars
>
> to reduce the student to faculty ratio, then you're going to have to have an increase in
>
> faculty. You're going to have an increase in facilities, physical rooms to teach those
>
> [students] in…   It's not just about teaching strategy, it's about teaching anything. You
>
> need an environment that is conducive to adult learning. And at present, the current War
>
> College, I don't think it is. The seminar rooms are crowded, the technology is dated. It's
>
> really hard to break them [students] into groups. I teach interactively, and so I do a
>
> common technique called star-bursting, where you break them into groups and have them

work with sticky pads and they have a question and they have to, in two minutes, everybody has to write down on their sticky pad paper and then you group them and do all this stuff and you're moving around the classroom. It is almost impossible in a classroom like that. So, it is really hard to use teaching techniques that actually encourage adult learning.

A faculty interview respondent explained that the best approach to improve strategy education, and specifically instruction in the Theater Strategy and Campaigning Course, would be, "a new educational building that helps facilitate the things that enables it, that you just can't do here." To its credit, the Army War College has already taken action on this issue, and has started work on a new facility that was in planning since 2008, but lacked funds. The current building, Root Hall, built in 1967, was originally sized for an annual class of 240 students, but the demand for USAWC graduates grew, and the annual class size had grown to about 340 students in 2008, along with the arrival of the distance education program's in-residence phase, and other courses taught outside the core curriculum (Cress, 2017).   The new building has been designed for 350 to 400 students and will provide more flexible seminar spaces with a greater potential to accommodate future technology (Cress, 2017). As one senior faculty interview respondent explained:

We were in this building [Root Hall] for 50 years. We're going to be in this new building probably for 50 years. We've already determined that what you want is a lot of collaborative space. You want a lot of flexibility. You want a lot of agility. What you don't want is this [old] building. This is the antithesis of what we're looking for.

 As of December 2018, the construction site for the new building had been staked out. Expanding capacity by expanding existing, or starting new construction of instructional facilities

is probably the most difficult resource challenge a school or college can face, and is preceded by a slow and long-term budgeting process. This particular challenge may be facing other schools and colleges of the Army University, but the War College appears to be on-track to solving this current obstacle.

Organization Influence 3 (O3): USAWC must consistently communicate clear organizational goals and objectives to achieve Army goals of 'winning in a complex world.'

T. Galvin (2018), explains that leaders must, "make a compelling case for internal change, must be established to engender the commitment of organizational members who implement it and to the stakeholders who provide needed support and resources" (p. viii). The USAWC must consistently communicate clear organizational goals to achieve Army goals associated with the AOC 'winning in a complex world,' and TRADOC goals of improving PME to respond to the 21st century security environment. T. Galvin (2018), writing on how to manage change in military organizations, explains that communication from senior leadership is critical at each step of the change effort (p. 106). USAWC leaders are challenged to combine the ongoing calls for change in the curriculum, and prioritization of subject matter from senior leaders and higher organizations, into a coherent strategy for change, while executing the current curriculum. As the Army's Leadership manual explains, achieving goals begins by setting objectives (HQDA, 2012a, p. 8-1).

However, before the organizational goals and objectives can be set, it is first necessary to, "receive the mission" from higher headquarters, which all soldiers learn is the first step in troop leading procedures (HQDA, 2016c, p. A-4). If the mission is not acknowledged, is misunderstood, or is superseded, then the right goals and objectives will not be set and pursued. As explained in Chapter One, the AU White Paper and Strategic Plan both make clear that

curriculum change is necessary across AU to support the AOC of 'winning in the complex world," which is our current security environment. Organizational policies and bureaucratic structures hidden in organizational culture models, can be, "a hindrance to improved performance and meeting goals, even when people are knowledgeable and motivated to achieve the goals" (Gallimore and Goldberg, 2001, p. 59). This phenomenon is certainly more acute when the goals are unclear.

Acknowledging the challenge to improve strategy education. Interviews revealed that the majority of faculty interviewed had not read, or were not familiar with, the AU White Paper of 2015 that called on the Army education system to address the growing complexity of the 21st Century security environment to support the AOC and 'win in a complex world.' The following comments were typical: "I'm familiar with it, I haven't read it;" "I've read excerpts of it;" "I haven't read it from cover to cover. I've read pieces of it;" "I remember reading it a while ago., I have nothing more to say except that I know I read it;" "I am not familiar with that exactly;" "unfortunately, I don't know the specifics," "I'm not aware of GEN Brown's missive," and "I'm not familiar with the [GEN] Brown one."

Two faculty interview respondents expressed the opinion that 'winning in the complex world' was no longer an appropriate construct around which to organize the curriculum. As one respondent expressed it: "I feel like we've moved away from the bumper sticker 'win in a complex world' I don't think the bumper sticker is the real issue." Another explained that the 'complex world' construct and associated challenges were not significant enough to require major curriculum change. Likewise, there was no evidence of familiarity with General Perkins' AU strategic plans which called for curriculum change across AU to support the AOC.   All faculty were familiar with the Secretary of Defense Mattis' description of PME in the

unclassified summary of the National Defense Strategy as, "broken" and many could cite recent

guidance from the CJCS Gen Dunford and CSA GEN Milley regarding the need to improve

students' speaking and writing capabilities. However, regarding guidance from Senior leaders,

faculty interview respondents stated that it is not always clear which school or college is being

addressed in public senior leader criticism of DoD PME, and therefore whether or not the

criticism applies to the USAWC. A faculty interview respondent explained this problem saying:

> PME isn't just one school. It isn't one system. It's all the services and individual
>
> institutions and how they approach their education. So, what you find is, unless it's a
>
> very specific targeted comment, like we need more, fill in the blank, specifically at this
>
> level, you just don't react on all the comments and just take it at face value. So, you have
>
> to start exploring it and see what the background is for why did the individual say it? who
>
> where they talking to? and does it really apply to the War Colleges? and specifically to
>
> the Army College?

As reviewed in the analysis of M1, the USAWC faulty are not in consensus as to whether

the current security environment challenges should be a driver for curriculum change. Faculty

interview respondents pointed to other, competing guidance, such as, "develop…strategic

thinking skills and communication skills," which was more recent, as their last set of

instructions, as proof that the college is complying with higher guidance. The absence of a

supporting goal at the USAWC to articulate how the college will support the goals in the AU

White Paper and Strategic Plan allows for inaction.

Inputs from the Field – Surveys of general officers and graduates provide priorities

for curriculum change. The USAWC faculty use surveys of General Officers in the field to

assess what they see as the needed skill sets and attributes for USAWC graduates and to rank

order the Program Learning Objectives (PLOs), and surveys of past graduates to identify how

well their USAWC education prepared them for success in their follow-on jobs. The 2017

General Officer survey conducted between 20 November to 18 December revealed that the PLO

Generals assessed as the most important for the School of Strategic Landpower (SSL) was that

USAWC graduates should be able to, "evaluate theories of war and strategy in the context of

national decision-making" (USAWC, 2018h, p. 1). In support of that goal, the Generals

surveyed recommended changes the USAWC could make to improve the quality of education,

which included, "enhancing the opportunities for USAWC students to engage with the CCMDs

to solve existing real-world problems (USAWC, 2018h).

The highest-rated curriculum areas/topics of importance were: "application of strategic

thinking to matters of U.S. national security," and "Breadth of knowledge designed to prepare

graduates for a range of strategic level assignments" (USAWC, 2018h, p. 1).   Of course,

assignments to the 3 and 4-Star ASCCs and CCMDs are among the strategic-level assignments

where the real-world problems associated with facing off against named adversaries are the daily

focus. However, in the same survey, General Officer respondents were asked to rank order focus

areas, and in this ranking rated, "Thinking/cognitive skills" as the number 1 priority, which beat

out, "Planning" nearly two-to-one (19% vs. 8.5%) (USAWC, 2018, h, p. 17).

In the 2015 Alumni survey, respondents were asked to assess the importance of

curriculum focus areas for emphasis. When asked to assess the importance of, "Application of

strategic thinking to matters of U.S. national security," 81% rated it as 'extremely important' and

19% as 'very important' making this the top-rated curriculum focus area among alumni in the

survey (USAWC, 2015, p. 5). By comparison, alumni ratings for "Theater Campaign planning"

were 33% as 'extremely important,' 43% as 'very important,' 19% as 'moderately important,'

and 5% as 'slightly important' (USAWC, 2015, p.5). These ratings align with the General

Officer survey conducted just two years later, and provide grounds for the USAWC's current

level of emphasis on TMS, TCP, and Phase 0, or Competition Phase campaigning. They are,

however, at odds with the emerging, next Army Operating Concept of Multi-Domain Operations

(MDO), which explicitly calls for more robust action in the peacetime, or competition phase, and

explain that expanding the competition space to create advantages over adversary militaries, and

denying them their objectives while achieving an operational position of advantage (TRADOC,

2019, slide 20). How MDO describes 'winning in a complex world' during the competition

phase above is consistent with the AOC description of the same. Table 11 below provides a

summary of alumni perceptions of the importance of these issues for focus in the curriculum.

Table 11

Alumni assessment of importance of strategy education curriculum focus areas for emphasis.

Concept	Perceived Importance for Strategy Education			
	Very Important	**Important**	**Moderately Important**	**Slightly Important**
Application of strategic thinking to matters of U.S. national security	81%	19%	0	0
Theater Campaign planning	33%	43%	19%	5%

When asked to identify ways to improve USAWC curriculum, the Generals' responses

did identify, "Joint and Military Strategy" as a topic requiring, "greater curriculum emphasis,"

which ties in with the recommendation for more focus on critical thinking (USAWC, 2018h, p.

21). The planning focus area encompasses the sub-focus areas of Strategic Planning, Campaign

Planning, and Crisis Action Planning, all components of the TSC curriculum and the framework

for development of TMS and TCP. From this ranking by General Officers, the USAWC could

logically assess that teaching students to be effective in contributing to the development of TMS

and TCP to win in the complex world was less important than developing thinking and cognitive

skills. But when the same Generals were asked to forecast into the future, and assess what,

"skills and abilities would be required for the next 10-15 years," the responses, "operate in a

phase 0 [competition] environment" and "apply information operations…and influencing below

the level of armed conflict" made the list of 8 skills and abilities related to being effective

(winning) across the spectrum of conflict (USAWC, 2018h, p. 19). The remaining 6 skills and

abilities were split between high-end warfighting and policy-level concerns (USAWC, 2018h, p.

19). Under the skills and abilities related to decision-making and problem-solving, the Generals

listed nine, among them four which relate to understanding the complex world, namely: 1) to

tackle complex problems; 2) to analyze complex and ambiguous situations; 3) to be comfortable

with ambiguity, and; 4) to deal with uncertainty (USAWC, 2018h, p. 20). This last ranking set

shows the linkage between decision-making and problem-solving skills and abilities to 'winning

in a complex world.'

        Although many faculty reported that they weren't very familiar with all of the senior

leader calls for change in PME, they expressed confidence that an external assessment on how

the USAWC was implementing change to better address 'winning in a complex world' and the

challenges of the current security environment would be largely favorable.   Many faculty

respondents believe that the USAWC, "would do very well" in such an assessment, based on

what they consider to be a well-crafted curriculum currently in place. This optimism is based on

surveys of General Officers who have, "indicated a very high level of satisfaction with USAWC

graduates" with 96% of survey respondents giving this rating (USAWC, 2018h, p. 3).

Those familiar with the Army University re-organization recalled that when the Army University was stood up, the USAWC, as an Army organization, remained under the direction of the CSA, but as a college, is nominally reporting to the AU Chancellor, the Commanding General of TRADOC. In the final arrangement, the Commandant of the USAWC is the Vice Chancellor of Army University and is responsible for Strategy Education, while the USACAC Commander is the Executive Vice Chancellor for Training and Education. Many of the USAWC faculty interviewed are uncertain what the term 'strategy education' really entails and can't define it. As previously discussed, terminology that does not have a strong definition in policy, regulations or doctrine is not easily adopted by the USAWC.   Establishing a goal for strategy education, and linking it to the Army's Operating Concept would help to provide clarity for this responsibility in ways that will improve instruction on peacetime campaigning that deters war and maintains security in the CCMD AORs.

Competing tasking and guidance from higher authorities. Faculty interview respondents discussed how the USAWC responds to competing goals and priorities from Senior Army and Joint leadership, which may change when that leader moves to a new position, or retires and is replaced. While many of the USAWC faculty identified having a sound strategy education that responds to the current security environment as a priority, faculty interview respondents pointed to the recent priorities of the CSA, GEN Mark Milley, who is emphasizing current and future readiness of the force, modernization, lethality of the force, and a return of focus to major combat operations and state-on-state conflict (Kreisher, 2016; Myers, 2017, 2018). There is a perception of a competing priorities between operating in the competition phase and preparing for high-end warfighting, the latter of which drives an academic and

industry emphasis on lethality for combat vice peacetime competition campaigning. As one

professor explained:

> The Army leadership sends a message that only lethality is important. So, you can't have
>
> your Chief of Staff of the Army only talking about lethality, and you can't have
>
> FORSCOM [Forces Command] and all these people pushing "Lethality, lethality!" and
>
> then get anybody to think anything about gray zones and stability. And what is the
>
> counter to Gray Zones? It is stability…I think the War College is trying to balance this
>
> out, but they're getting mixed messages because the Secretary of the Army has made it
>
> clear that he doesn't think gray zones are important. Because actions speak louder than
>
> words.

One faculty interview respondent explained that GEN Milley's emphasis on high-end

warfighting is due to the current force having lost its appreciation of major warfighting that

characterized the Cold War and DESERT STORM generations. As another faculty interview

respondent commented: "there is plenty of evidence in the unclassified sources that says that

we've lost the bubble with a set of mid-grade and senior tactical operations officers that have

never fought. They've never done a sync [synchronization] matrix, they've never done a joint

combined fight where they've had to lay out a campaign."   Increasingly, this is seen as the new

emphasis that the USAWC must respond to, even as the CCMDs are working to implement the

NDS, NMS, and the 2018 Joint Concept for Integrated Campaigning that are important to the

CCDRs' ability to win in the complex world during the competition phase. As one faculty

interview respondent explained:

> We're at the cusp of two new directions that have to do with the future of warfare in that
>
> high-end conflict, Major Combat Operations, but also in a competition that our Draft

[Joint] Concept for Integrated Campaigning brought out, the competition short of war we are in, **and that's the competition we're losing, we're already losing it**! It's not the future combat against a near pear competitor, but it's the U.S. influence and the undermining of assurances to our partners and allies, which we have claimed for a very long time now, throughout the Cold War and beyond that is a critical component of any strategy approach we've had.

This faculty member then added, "…what I am hoping it's going to is more discussion about the actual capabilities necessary to do both that MCO [Major Contingency Operation] operation and this Gray Zone competition so we have some basis upon which to make decisions.

One of the themes brought up in interviews was on the history of the four incarnations of the Army War College discussed in Chapter Two, where the Army War College underwent revolutionary change to respond to the then extant complex security environment and the significant changes in the character of war.   Most faculty did not see the current security environment as sufficiently difficult to merit a 'fifth incarnation' of the War College in response, but several faculty did believe that major change was required, with one professor arguing that was indeed, "time for a new War College" in response to the phase 0/competition Gray Zone challenges.

As discussed in the analysis of M1, based on comments from faculty interview respondents, the directives from the CSA and JS J7 via OPMEP oversight appear to have greater weight at the USAWC than the institutional Army Headquarters that is assigned responsibility for training, education and doctrine, namely, Army Training and Doctrine Command. The AU white paper, learning strategy, and strategic plan are all linked to the AOC, as are the Army Human Dimension Strategy, and Army Talent Management Strategy. There are clear calls for

changes to curriculum and emphasis on 'winning in a complex world' in these documents that

apply to both the competition and crisis/conflict phases.   Faculty interview remarks, and public

evidence has been provided that the U.S. is losing the competition phase (Ridgewell, 2016;

Bohane, 2017; Guild, 2017; Paskel, 2017; Chellaney, 2018; Harris, 2018a, 2018b; Troeder,

2019; Ratner, 2019; Dana, 2019; Wesley (quoted in King & Boyklin), 2019; Scapparrotti,

2019). The NDS explains that the United States is now engaged in great power competition, that

plays out in the competition (peacetime) phase. As discussed in the analysis of K1, winning or

losing militarily in the competition (peacetime) phase is largely a function of the quality of the

Theater Campaign Plan, and should therefore be a priority learning objective for the USAWC.

As pointed out in Chapter Two, the USAWC has successfully transformed its curriculum and

focus to respond to significant changes in the security environment that led to operational

effectiveness and mission success. Such change requires clear guidance goals and objectives, if

the organization is going to undertake change in curriculum to respond to the current security

environment and support the AOC by 'winning in a complex world.'

Priorities are not always expressed as specific tasking to the War Colleges. One

faculty interview respondent explained that the War College is scanning across the Army and

Joint leadership statements of priorities to find implied tasks. An example is the current focus in

the Joint Staff, at the direction of the Chairman, to achieve globally integrated operations and

plans (Freedberg, 2017). Globally integrated operations (GIO) are expected to expand the

competition operational space, allow U.S. forces to achieve overmatch across the competition

continuum, and to better coordinate and integrate with America's Allies and partners to achieve a

"common defense and complementary capability" (JSJ2, 2018). DoD PME is a component of

the "Joint Force Development" line of operation in the implementation of this new concept,

which will require changes in FG PME curriculum (JSJ2, 2018) This effort is consuming the

CCMDs and their supporting service component commands, but as this faculty member

observed, no clear tasks were officially assigned to the USAWC to support GIO: "There is not

one stick of guidance … that says, 'global integration.' It is us staying attuned to the system,

listening, and applying our professional judgment about what students need to know to be

successful." Another faculty observed that, "we get frequent direct, or passed along through the

chain of command, guidance that GEN Milley and Gen Dunford and Secretary Mattis are hugely

interested in PME." Establishing a goal that links strategy education outcomes to the Army

Operating Concept would also help to establish linkage to Joint concepts such as global

integration which links the NMS to TCPs (JSJ2, 2018).

The USWC organization mission assigned by the Headquarters, Department of the Army

in 2014 (See Table 1 in Chapter One) remains the same to, "educate and develop leaders for

service at the strategic level while advancing knowledge in the global application of

Landpower." The USAWC Commandant amplifies that mission statement with his Vision and

Intent statements, explaining that the 'deliverable products' of the USAWC are strategic leaders

(graduates) and ideas that are, "invaluable to the Army, Joint Force, and Nation" (USAWC 2018,

p.3). As stated in the literature review, USAWC Commandant, Major General John S. Kem's

article assessing the implementation of the Army University acknowledged that requirement

driving the establishment of the Army University, specifically that of, "developing soldiers and

civilians with the technical, professional, and leadership skills to 'win in a complex world' is

more important than ever" (Kem, Hotaling, 2017, p. 1). In his June 2018 assessment, MG Kem,

acknowledged the complex world facing the Army and the Nation, stating that the USAWC as an

organization, "must continue to innovate in our efforts to help students prepare for a very

uncertain future environment in a very competitive world with a number of disintegrative forces that pose real strategic challenges. Significant developments in the hyper-competitive security environment demand our continued scrutiny…" (USAWC 2018d, p. 3). MG Kem's remarks above did not explain how the USAWC would focus on winning, nor do they specifically mention any particular theater, but does highlight the importance of making the effort to do so. However the USAWC's Institutional Learning Objectives include four domains of knowledge, one of which is theater operations where the security environment must be examined to develop and carry out appropriate theater military strategies that respond to the unique security threats facing the CCDR to support effective deterrence (USAWC, 2018d). Organizational goals building on this domain would hold promise for clarifying how the USAWC's Strategy Education will support the Army Operating Concept.

Developing strategists – a key to 'winning in a complex world.' Valledor (2015), writing about Strategy Education in U.S. PME, quoted General John Galvin, (1989) to make the point that while the Army had mountains of studies, essays, and books explaining how to develop strategic leaders, it lacked a similar focus for developing strategists. Interviews with faculty made clear that the Resident Education Program (REP) and Distance Education Program (DEP) are both focused on developing graduates who are strategically-minded leaders who think critically and creatively. The faculty interviews also made a clear distinction between providing strategic leaders and strategists. A view expressed by many faculty interview respondents is that USAWC should not attempt to prepare all students to be strategists, as many will fill other jobs in the Army and Joint Force that don't require that skill. As one faculty member explained, the students are seen as:

[S]trategic leaders and they're like the management between the General Officers and the

Majors and Captains and the Warrant Officers who do the work, so they're not going to

solve these problems [strategy development], they're going to manage the solution of

them and the people and the resources and the processes. It is a different skill set you

need to teach them, like the Majors in the Basic Strategic Arts Program who are going to

be FA59s [strategists] and they're going to lead the planning teams.

One USAWC REP program that arguably produces advanced strategic thinkers for service at the

highest levels (National Strategic) is the Carlisle Scholars Program (CSP) run by the Department

of Command, Leadership, and Management. The highly selective Carlisle Scholars

Program (CSP) educates one seminar of REP students (by definition this is 16 or fewer students

per year) through, "innovative, purpose-driven projects undertaken in partnership

with the strategic-level defense analysis and decision making communities" (Anderson, Kooij,

Briggman, Hilbert, Lay, & McNaughton, (2015, p. i). The DCLM webpage explains the focus of

students in the program:

Carlisle Scholars will analyze strategic issues, formulate positions, advise strategic

leaders, and contribute to national security debates. Participants will form a single

seminar throughout the academic year which will entail a combination of independent

work, teamwork and coordination with faculty. After completing approximately 10 weeks

of intense course work, the scholars will shift focus to writing articles and advising senior

leaders.

The requirement to return student officers back to the operational force imposes

constraints on the USAWC, as described in the analysis of Organizational Influence #2 (O2)

from the perspective of time available to teach the students within the 10-month curriculum. The

Carlisle Scholars program could be scaled up, if the demand signal from the CSA and TRADOC

was clear, but again, USAWC graduates are needed back in the field to fill operational duty positions.

Army War College strategist programs. The Army War College does produce the certified strategists the Army and Joint Force desperately need through resident and distance courses, which are outside of the core curriculum of the USAWC REP and DEP attended by Lieutenant Colonels and Colonels. The two strategist courses offered at the USAWC are the Defense Strategy Course (DSC), and the Basic Strategic Arts Program (BSAP).

DSC is offered twice a year by the USAWC Department of Distance Education as a four-month, online course that admits a total of 115 officers per course (230 per year), who must be selected by a board convened semi-annually by the Army Human Resources Command. To be eligible for selection, officers must have completed the Army Intermediate Level Education (ILE) as certified by the completion of a Command and General Staff College or equivalent schooling that results in the Military Education Level 4 (MEL-4). The course aims to make students better staff officers, and better strategists. The final section of the course, Policy Development and Security Environment, is focused on the challenges of ASCCs and CCMDs and, "examines uses of history in policy making, globalization/economic development, the current strategic environment (both opportunities and threats), cultural relations and dimensions, multinational operations, centers of gravity analysis and Strategy at the Combatant Command Level" (USAWC, 2017f). Completion of the course results in the award of the additional skill identifier 6Z (ASI 6Z) "Strategic Studies Graduate" (formerly "Army Strategist"). This program is administered by a single member of the USAWC Department of Distance Education, who is supported by reserve officers who serve as assignment readers/graders.

BSAP is the developmental course for newly selected Army Functional Area 59 Officers, who are certified as strategists upon completion of the course. The BSAP is not part of the USAWC core curriculum, and is offered only to officers who are selected for duties as Functional Area 59 Strategist.   Among the PLOs of this program is, "Analyze, evaluate, and develop theater-level strategy for securing national strategic objectives within a theater" (USAWC, 2016, p. 10). DA Pamphlet 600-3, explains that the FA 59 officer's role is:

> To provide Army organizations, combatant commands, the Joint Staff, and the
> interagency community the capability for strategic analysis in support of the development
> and implementation of plans and policies at the national strategic and theater strategic
> levels. FA 59 officers execute key institutional and operational core processes, including
> formulation and implementation of strategy and strategic concepts and policies, and the
> generation, strategic projection, and operational employment of decisive joint and
> coalition land combat power (HQDA, 2017b).

The BSAP program provides graduates who are certified strategists, ready to contribute to the development of theater military strategies at the ASCC, Sub-Unified, and CCMD HQs. The Army War College launched the BSAP in 2002, at the request from the Army G3 to develop a basic qualification course for officers selected to the 59 functional area (Zimmerman, 2010). This researcher's onsite observation of a BSAP class revealed the instruction was delivered in the manner of a graduate program, with more formal structure than the USAWC seminars and with more rigor in the course work. The presentation was decidedly advanced level and pushed students to their cognitive limits. The class observed was focused on the Theater Army (ASCC), its historical development, current roles, and the constraints, limitations, and tasks assigned to it. In this class, students learned to understand the key attributes of various levels of Army unit HQs

and how they interact with other Army units and Joint Forces. The instructor's presentation

stimulated the students' intellectual curiosity while intentionally teaching to the expertise level of

the top half of the students. BSAP has an attrition model – not everyone graduates, and this rigor

produces Officers who are better-prepared to contribute to developing theater-level strategies and

campaign plans at 3 and 4-Star HQs. As previously stated, attendance at BSAP is currently

limited to officers selected for the Strategy Functional Area (FA 59) as they make their transition

to their newly assigned specialty. While BSAP provides exceptionally qualified graduates who

can contribute to the formulation and execution of TMS, it is currently not scalable in its present

form, as the student pipeline and faculty manning are managed according to the needs of the

FA59 population. As with other functional areas, newly selected Majors attend their FA-specific

courses before being assigned to positions coded for their specialty.

In addition to DSC and BSAP, the Army War College hosts the recently established

Defense Planner's Course (DPC).   The eleven-week DPC focuses on providing strategic

planners to the Army and Joint Force, that complements DSC and BSAP. Both DSC and BSAP

programs are operating at capacity, and have specific entry requirements and centralized

selection processes. The purpose of the DPC is, "to assist the Army in meeting increased

educational requirements for planners at the operational and strategic levels," which directly

serves the 3 and 4-Star HQs (USAWC, 2018e, p. 3). The course educates Officers from Captain

to Colonel who are assigned to, or already serving in, Army HQs at the 3 and 4-Star level

supporting a CCMD, or are assigned to Joint Commands, and have not received proper education

to work at the strategic level. Graduates of the DPC are certified as Joint Planners and awarded

the additional skill identifier 3H, "Joint Planner."

Interviews with faculty from the Department of Distance Education provided additional context on the DPC. The course followed from feedback from the field that there was a gap in Army Field Grade PME, that officers attending ILE at Fort Leavenworth were receiving and education with a focus almost solely on the tactical level of war and operations, and were not sufficiently prepared to serve at the strategic level. The DPC was launched as an experiment, essentially to see how the USAWC can make a contribution to provide more strategically and operationally competent officers out to the Army and the Joint force to meet their needs for skilled personnel.

Candidates for the DPC must have completed the Command and General Staff Officers Course (CGSOC) or DSC (USAWC, 2017f), but waivers are granted in the case of operational need of the field HQs supported for Captains and Warrant Officers serving in an ASCC, CCMD, or Joint HQs (USAWC, 2018e). The primary training audience is Majors and Lieutenant Colonels who are serving in, or transitioning to an ASCC, CCMD, or Joint HQ (USAWC, 2018e). One of the key DPC course objectives relevant to this study is for students to, "understand how theater commanders translate national strategic direction into theater strategies and campaign plans," making this program a tailor-made solution to providing qualified FG Officers to serve in the 3 and 4-Star HQs engaged in formulating a theater military strategy and executing it through a campaign plan (USAWC, 2018e, p. 2). The DPC includes a theater campaign planning exercises that requires students to, "analyze an emerging crisis situation using design and the Joint Planning Process to provide concise operations for the operational and strategic decision maker" (USAWC, n.d.).

The DPC is a blended learning course consisting of both non-resident and resident instruction. The course is open to U.S. Military officers from all components and civilians

working with Department of Defense organizations conducting strategic and operational

planning. Phase I of the course is a ten-week online Distance Education program offered twice

annually. Phase II is a one-week instruction conducted at the students own pace by coordinating

for and completing hands-on training with a JOPES Functional Manager at a local military

facility. Approximately 20 students are admitted to each class, which results in a maximum

possible annual output of 100 graduates per year.

The DPC course design was informed by BSAP, the School of Advanced Military

Studies at Fort Leavenworth, and the USAWC strategy education curriculum. The pilot course

was offered to field grade officers serving in the ASCCs who were serving at the strategic level

and had not yet received any education to understand strategy at the National and Theater levels.

Many of these officers were getting their education in the crucible of the job, essentially on-the-

job-training, or OJT, learning by doing, but not doing it very well. The HQs where the students

are assigned are generally not inclined to let their officers filling important positions attend an in-

residence course for 60 days, but were supportive of a distance-learning option. As one

professor from the Department of Distance Education (DDE) explained:

> Here is a program where they can learn as they go, and even take what they learn in the
>
> course and apply it to day-to-day activities, or have the day-to-day activities relate back
>
> to the course and use the collaborations, or the instructor to ask 'Hey! What do you think
>
> about….?' And ask those questions – 'I've come across this instance at my job. What's
>
> your view?… Has anybody else come across that and how should I handle it?

The course requires students to write a strategy and are taught the elements and composition of a

theater strategy for an ASCC. Force management is included in the curriculum so that these staff

officers could learn about the impact of force availability on theater strategies and theater

campaigning. The DPC is ten-weeks long and as intense as a distance-learning course can be with about 200 pages of reading per week in acknowledgement of the fact these officers were fully employed in 3 and 4-Star HQs. The faculty manning for the course has been taken 'out-of-hide' from the current level of staffing at the USAWC, because there are no authorizations for additional faculty to lead it. The course is so popular with the ASCCs, CCMDs, other commands working at the strategic level, and even other government agencies, that demand for the course exceeds the supply in terms of course seats available. The USAWC DDE explains that the primary purpose of the Defense Planners Course is:

> [T]o assist the Army in meeting increased educational requirements for planners at the operational and strategic levels. The DPC program of study builds on students' earlier education attained in CGSOC or DSC. It focuses on improving competency in strategic direction, strategic/operational art, operational design and the joint planning process (JPP) with enhanced awareness/understanding of the interconnections of multinational coordination and interagency planning. This course is for those officers/ civilians who do not have the benefit of going to BSAP, SAMS or the JPME II courses but must operate in and conduct planning at that level (USAWC, 2017f).

The DPC program is not yet approved by the Department of the Army, but based on its impact to the force in the field, it should be seriously considered for approval.

The Army War College also runs the Joint Warfighting Advanced Studies Program (JWASP), which has the purpose of educating and training officers to plan theater strategy and campaigns as members of a Joint and multi-national force command staff. The course is an eight-hour program that USAWC students in the resident program may take as an elective, and provides students, "with an advanced learning experience in theater strategic and JTF [Joint Task

Force] command and operations," with an emphasis, "on the joint and coalition commander's roles in strategy development, operational design, and synchronization/integration across a complex environment" (USAWC, 2018i, p. 1). JWASP studies focus on:

> understanding the challenges facing contemporary commanders through the study of senior joint/combined command, strategic "hotspots," and the operational design, organization, and execution of theater level campaigns across the spectrum of warfare. The study of contemporary joint and combined force employment provides a basis for understanding current doctrine and practices while focusing on applying these principles to the operational environment of the 21st century (USAWC, 2016).

The course is an advanced level continuation of the TSC course that provides students the basics of developing TMS and TCP. Officer students who will be reporting to positions on the Joint Staff, CCMDs, ASCCs, and Service Staffs are given priority for the course and encouraged to apply. This course is taken as the entire package of electives following the core USAWC curriculum. Course participants will practice what they learned as members of a CCMD Joint Planning Group in exercise and produce a variety of Joint Planning Process products for a major operation in the Joint Operations Area (USAWC, 2018g). Students completing this course are among the most-qualified among USAWC graduates to lead or contribute to developing a TMS or TCP in a CCMD confronting Gray Zone challenges and hybrid warfare.

While not designed to produce strategists, the Army War College's Center for Strategic Leadership offers the Joint Land, Air and Sea Strategic (JLASS) Special Program, which is offered as an elective at every Senior Staff College. The 2016 USAWC program guide describes JLASS Exercise as designed to reinforce the resident course core curriculum topics to include theater campaign planning, crisis action planning, and resource allocation and prioritization

(USAWC, 2016). The 2018 program guide explains that, "at the end of the course, students will be able to analyze developing situations to synthesize theater strategies" (USAWC, 2017g, p. 38). As a special program it is placed outside the normal elective time slot. JLASS is a six month program that runs from November to May and culminates in a warfighting exercise at Maxwell AFB AL, where participants at each of the senior-level colleges are engaged in the simulated war fight that requires students to participate in developing a theater-level strategy. JLASS provides students, "an opportunity to develop and implement their own regional strategies against realistic problems" (Harper, 2017). The scenarios include a Lesser Regional Contingency (LRC) situations that encompass gray zone challenges and conflicts that characterize the contemporary security environment. Past scenarios have included Gray Zone and Hybrid Warfare situations such as freedom of navigation operations (FONOPs) in international and contested waters, tensions between China and Japan or China and Taiwan (Connors & Ogren, 2008, Zimmerman, 2012).

Observation of two JLASS classes demonstrated the value of this program for preparing officers to serve in Joint Commands, in particular CCMDs. Classes are organized geographically, the two classes observed were meant to simulate the EUCOM and AFRICOM staffs. Students were assigned staff roles that they would possibly fill themselves based on their specialty, or that they would interact with regardless of specialty. The composition of the class resembled a real-world Joint Planning Group. Realism was introduced by imposing time constraints to simulate the pressure staff officers experience at these high-level commands. The classrooms had all the communication technology to interact with role-players for higher and adjacent HQs, and coordination with the inter-agency community when appropriate. The instructors filled some of these external roles to facilitate learning objectives. Instructors asked

probing questions to keep the students focused and to keep the process moving if students had

not adequately accomplished the task. Following a well prepared script, the instructors prompted

the students and provided examples to complete the picture to move to the next step in staff

work. Students were assigned homework in preparation and were expected to launch

immediately into their assigned roles, which included leading discussions to develop staff

products.

The JLASS, JWASP, BSAP, and CSP demonstrate that the USAWC faculty are fully

capable of teaching strategy for the goal of producing strategists and strategic planners for

service in the 3 and 4-Star HQs where they support the CCMD TMS and TCP in the competition

phase. This was identified in the analysis of K2 as a major asset for the USAWC. To the degree

that these course can be scaled, the contributions they make to the Army and Joint Force would

increase. These courses are proof that while the core REP/DEP curriculum completed by the

majority of USAWC students does not produce strategists and strategic planners, there is a

distinct cohort of officers so trained and educated at the USAWC who are able to contribute to

achieving the AOC during the competition phase at the front lines of the CCMD theaters.

Synthesis of Results and Findings for Organization Influences

The USAWC has not established a goal that specifically links strategy education to the

Army Operating Concept of 'Winning in a Complex World' and the TRADOC goal to

demonstrably improve PME to support the AOC. The USAWC faculty are largely unaware of

any expectation of change resulting from the Army University White Paper, or the Army

University Strategic Plan. Surveys from General Officers in the field on the quality of USAWC

graduates have not reflected any shortfalls in graduate performance in 3 and 4-Star HQs that are

dealing with adversary forms of maneuver, strategies and doctrines for the hybrid use of military

force in the complex world during the peacetime competition phase. These surveys are a

primary assessment tool that drives curriculum change, and absent clear linkage to a shortfall in

executing the AOC will not drive change in curriculum to support the AOC.

USAWC faculty can identify several acknowledged, "received missions" from senior

leaders, as well as describe how the USAWC responded. Theater military strategy and

campaigning have received increased attention due to the calls from former SECDEF Mattis to

increase time and attention to campaigning, which includes the theater campaign plan, which is

executed in peacetime competition. This is perhaps the best foundation on which to establish

goals that focus on the AOC goal of 'winning in a complex world' in the peacetime competition

phase. While there is no clear USAWC goal linking strategy education to the AOC, faculty can

point to the courses and lessons where topics supporting other acknowledged tasks and missions

from senior DoD leaders are addressed and discussed. While the USAWC does not focus on

making every graduate a strategist or strategic planner, its electives for the REP/DEP and other

educational programs, demonstrate that the faculty are skilled at teaching strategy, and in

particular, theater military strategy and campaigning, the skill set in most demand at the 3 and 4-

Star HQs where the AOC is put into motion daily in the competition phase.

Summary of Influence Findings.

Knowledge influences. Four of five Knowledge influences were partially validated (K1,

K3, and K4, and K5), while K2 was invalidated, as possible causes for performance gaps, and

was an asset.   The USAWC faculty demonstrate varying levels of familiarity with the concepts

of hybrid warfare and gray zone, as well as the adversary doctrines and forms of warfare

employed that characterize the current security environment known as the 'complex world.' At

the same time, the faculty acknowledge the importance of teaching these topics, while also

admitting they are not getting the time and attention they deserve. The faculty agree that

USAWC graduates at 3 and 4-Star HQs need this knowledge to successfully carry out the AOC

in Army and Joint commands, but at the same time admit that USAWC graduates would have

difficulty recognizing the adversary forms of warfare in the real world. This situation reveals a

gap in the knowledge required for student success in implementing the AOC when assigned to 3

and 4-Star HQs where the effort is on continuous campaigning.

In survey and interview responses, many faculty members assessed that understanding

the adversary forms of warfare and the associated theories and strategies were important to

accomplish the AOC, the USAWC has not prioritized these for instruction. The USAWC

research faculty demonstrate mastery level knowledge of these concepts, doctrines and forms of

maneuver as they are manifested in the current operating environment. Mastery knowledge of

these topics in the teaching faculty varies. Many faculty members also believed that these

subjects could be addressed in the seminar discussions via instructor facilitation, and with current

readings assigned without significant curriculum change. While many of the teaching faculty

demonstrate competence in identifying gaps in the current curriculum and instruction, the

challenge lies in advocating for these gaps in the curriculum review process, addressing them in

curriculum revision, and improving student performance outcomes that support successful

execution of the AOC in the complex world.

Motivation influences. All 4 motivation influences were validated or partially validated

as potential causes for performance gaps. While the faculty has demonstrated abilities in

curriculum development and refinement, as a collective body, the motivation to make curriculum

changes to support the AOC is uneven. The individual and collective efficacy to respond to

changes in the security environment has been demonstrated successfully with many examples,

but not in response to the AOC.   The USAWC faculty are not united in their assessment as to

whether or not change to the curriculum is necessary to improve USAWC student contributions

to 'winning in a complex world,' which is the active campaigning that faculty interview

comments and the literature review show the U.S. is currently <u>not</u> winning. USAWC faculty see

the curriculum redesign efforts as burdensome and slow and carry out most refinement at the

level of course updates and instruction content.

     Organization influences. All 3 organizational influences were validated as possible

causes for performance gaps.   Findings for organizational influence 1 (USAWC must establish

goals, policies, and procedures in line with achieving the Army goal of 'winning in a complex

world') demonstrate that the USAWC does not see a clear mission or task resulting from the AU

White Paper, and that it does not have a clearly established goal that links strategy education to

the Army Operating Concept of 'winning in a complex world.'   While many of the existing

goals and program learning objectives (PLOs) support this end, the faculty had difficulty

articulating how the USAWC was accomplishing the mission to be the lead for 'strategy

education' to produce the outcomes called for in the AOC in terms of winning in the peacetime

competition phase. The importance of educating FG officers to develop TMS and TCP is

demonstrated in the literature review and interview comments show that the U.S. has not been

successful in campaigning during the 'peace time' competition phase as the DoD is

outmaneuvered by the Russians and Chinese (Freier, et al., 2016; Ridgewell, 2016; Bohane,

2017; Guild, 2017; Paskel, 2017; Chellaney, 2018; Harris, 2018a, 2018b; Troeder, 2019; Ratner,

2019; Dana, 2019; Wesley (quoted in King & Boyklin), 2019; Scapparrotti, 2019).

     Consistent with current Army and Joint tasks, the USAWC seeks to produce graduates

who are strategic-minded, with critical and creative thinking skills, able to fill senior leader

positions in the Army and Joint Force, and who are able to carry out a variety of roles, including development of theater military strategies and theater campaign plans. The USAWC faculty explained in interviews that the USAWC REP/DEP core curriculum balances many competing requirements and cannot specialize in producing strategists to better support the formulation and execution of TMS and supporting campaign plans at 3 and 4-Star HQs. The core curriculum TSC provides excellent foundational instruction in the formulation and execution (campaigning) of theater military strategies. Beyond this foundational instruction, the USAWC offers electives and special programs that further build these skill sets for those who elect to pursue them. The USAWC also contributes to the provision of strategists to the Army and Joint force by hosting the BSAP and DSC programs, while providing Joint planners, proficient in the art and science of campaign planning and improved competency in strategic direction through the DPC. In addition, the USAWC has advanced courses for developing strategic thinkers for duty at the National Strategic level (OSD, JS). These additional courses can be scaled up to provide officers to the Army and Joint Force to carry out the AOC at 3 and 4-Star HQs.

The USAWC faculty proposed several organizational policy solutions to improve student performance outcomes with regard to the successful implementation of the AOC to win in the complex world. Among these are suggested revisions to Army talent management policies for both students and faculty. Faculty suggested changes to both the selection criteria and the process of student selection to obtain students with the best academic discipline and aptitude for strategic studies. Faculty suggested a personnel management policy change so that students would receive their follow-on assignments as early as possible in order to select the right electives in preparation for the next assignment. Faculty also recommended changes to policies for faculty selection, in order to attract and retain quality faculty. Increasing academic rigor was

also identified as an area for improvement to better ensure student success. Finally, concerning

talent management, the faculty suggested improvements for faculty development, to include

increasing opportunities real-world temporary duty with CCMDs. Addressing the mission of

strategy education, faculty suggested policy changes to achieve this over the entirety of an

Officer's career, which would result in more 'strategically-minded' officers reporting to the

USAWC's REP/DEP and its independent courses.

Findings for organizational influence 2 identified several obstacles and resource gaps to

curriculum re-design that would support the AOC, as well as suggested solutions from the

USAWC faculty. Infrastructure obstacles of classroom size and number, while significant, are

already being addressed with the construction of a new building. Time, namely the length of the

academic year, was cited as a major obstacle to curriculum redesign, which was described as a

'zero-sum' effort within the limits of the 10 month academic year for the REP, and time

available to students in the DEP who are fully employed. Solutions to overcome capacity

limitations identified by the faculty included scaling up the DSC and DPC to produce more

graduates for the Army and Joint Force, and to create more time for faculty to participate in

course refinement and curriculum redesign. Both of these solutions require additional resources

in the form of more faculty. USAWC faculty compared the manning level at other Service

Colleges to make the case that the USAWC faculty is under-manned relative to the tasks

assigned.

The USAWC responded to the demand for more strategists and planners via additional

courses that are outside the REP/DEP core curriculum (DSC, BSAP, and DPC), two of which

(namely DSC and DPC) could be scaled to better meet the demand, with reasonable additional

resources applied, all without impacting the main curriculum for the REP and DEP.   These

courses do respond to a gap in Officer PME that is critical to preparing officers for success in 3 and 4-Star HQs and to contribute to development of theater military strategies and the supporting theater campaign plan to 'win in a complex world.' The demand for these officers exceeds the USAWC's teaching capacity, and therefore more resources, mainly additional faculty, are required to increase throughput from these DE programs. The current output of both courses is 225 graduates per year, which could theoretically be doubled by adding 3-5 additional faculty to the DDE.

Findings for organizational influence 3 (O3) demonstrated that the USAWC does not have clear organizational goals to support the AOC. USAWC faculty acknowledged the College's assigned role in leading strategy education across all ranks of the Officer Corps. While the exact meaning of the term 'strategy education' remains in flux, the USAWC faculty embrace the role of being the Army's designated lead for it. The Army has appointed the USAWC as the lead for strategic-level education to set the learning objectives for all stages of an Officer's career for strategy education. With such an important mission, it is important to set goals for strategy education that are connected to the Army's Operating Concept. However, faculty interview comments make clear that they did not see the AU White Paper or Strategic Plan as having generated any tasks to the USAWC to revise curriculum.

Faculty in the REP and DEP programs are challenged to add new content to solve the problem of equipping those HQs with more strategically-minded, critical thinkers who can develop and implement theater military strategies without a clear task to do so. Even if that were possible, the faculty state that very few of these graduates report to those HQs, and argue that changes to the core REP/DEP curriculum focused on the CCMDs and ASCCs would impact the productivity of USAWC graduates sent to other commands.

USAWC faculty cited examples of competing guidance from Army and Joint leadership, and provided examples where the College successfully responded to clear guidance, and even unclear guidance to improve curriculum focus or content. However, clearly stated tasks/missions from higher authority produce the best results. The AU white paper and strategic plan documents were not perceived by many faculty as a specified task to improve PME to support the AOC to win in today's complex world.

CHAPTER FIVE: RECOMMENDATIONS, IMPLEMENTATION, AND EVALUATION

"Developing soldiers and civilians with the technical, professional, and leadership

skills to 'win in a complex world' is more important than ever"

Major General John S. Kem, 2017

This study focused on validating a series of assumed knowledge, motivation, and organizational (KMO) influences to identify performance gaps that would impede accomplishment of the proposed organizational goal. This chapter focuses on providing recommendations for the assumed influences that were validated in Chapter Four as possible causes for performance gaps, and is divided into four sections. The first section presents the validated influences and the rationale for their validation as potential causes for performance gaps. The second section provides feasible recommendations mostly derived from interviews with faculty. The third section outlines an implementation plan, which describes integrated recommendations for addressing the KMO gaps. Finally, an evaluation plan is presented in the fourth section, to evaluate progress in implementation.

Chapter Five answers the research question #5 proposed by this researcher: "What are the faculty knowledge, motivation and organizational influences that are preventing full accomplishment of Strategy Education Goals to prepare students to develop strategy for the challenges of the complex security threats of the 21st Century?" In addition, this chapter will provide answers to the question posed by the USAWC in the 2016-2017 Key Strategic Issues List (KSIL), how can the Army, " better prepare senior Army leaders to effectively contribute to national strategy (NSS, NDS, NMS) development. How can we adjust officer development to prepare leaders to apply the new Army Operating Concept, specifically, to 'win in a complex world'?" (Troxell, 2016, p. 10).

Overview of Validated Gaps

Through analysis of survey responses, interviews, document analysis and observations, 7 of the 12 assumed influences were validated, and 4 were partially validated, as possible causes for performance gaps. The proposed recommendations provide courses of action for the USAWC to improve strategy education to better support the Army Operating Concept of 'winning in a complex world.' For the purpose of developing complete recommendations, both validated and partially validated influences are included, and are considered gaps. These recommendations are proposed as holistic courses of action that address the 11 validated and partially validated influences.

Table 12

Summary of Validated/Partially Validated KMO Influences

Validated Influence	Validated (gap)	Partially Validated (gap)
Knowledge Influences		
K1: USAWC strategy education faculty must have mastery level knowledge of the concepts, doctrines, strategies, and forms (types) of warfare being employed by the Russian Federation and the People's Republic of China.		X
K3: USAWC faculty must have mastery level knowledge of theater military strategy execution, and how to adjust them in execution (campaigning) to respond to the multiple variations and combinations of the adversary forms of warfare that are complicating the development of military theater strategies that work.		X
K4: USAWC faculty must be able to identify and address the strategy education learning objective gaps in the current syllabi, as well as supporting readings, activities, assignments and assessments.		X
K5: USAWC faculty need to know how to design curriculum with the right learning objectives, that advances the learners' ability to apply the knowledge and skills learned, supported by practice strategies for effective knowledge transfer.		X
Motivation Influences		
M1: USAWC faculty need to see utility in redesigning the strategy education curriculum to respond to the 21st century security environment to support Army goal of 'Winning in a Complex World.'	X	
M2: USAWC faculty, as a group, should have individual and collective organizational efficacy in theater strategy content and instructional or curriculum redesign to improve strategy education in support of the Army Operating Concept.	X	
M3: USAWC faculty should see redesigning the curriculum to respond to 21st century security environment as a core component of their role as faculty in preparing student success and deterring war.	X	
M4: USAWC faculty should see redesign efforts as not too costly in terms of time and non-competitive with their current instructional load	X	

Table 12 (continued) **Validated Influence**	Validated (gap)	Partially Validated (gap)
M5: USAWC faculty need to see utility in redesigning the strategy education curriculum to respond to the 21st century security environment to support Army goal of 'Winning in a Complex World.'	X	
Organization Influences		
O1: USAWC must establish goals, policies and procedures in line with achieving the Army goal of 'winning in a complex world' (reinforce a culture model that embraces change to modify learning objectives, instructional design, and content focused on theater strategy development for the 21st Century security environment).	X	
O2: USAWC must provide resources/ reduce obstacles, to Faculty efforts to carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'	X	
O3: USAWC must consistently communicate clear organizational goals to achieve Army goals of winning in a complex world, and TRADOC goals of improving PME to respond to the 21st century security environment.	X	

Recommendations for Implementation

The 11 validated needs are addressed in one or more of the five proposed

recommendations, which aim to put the USAWC on path to improve the Strategy Education

curriculum to fully support the Army Operating Concept (AOC) to win in a complex world.

These recommendations are proposed as courses of action (COA) that can be executed on the

timeline to meet the goal, or to at least start to make progress on the goal quickly.   The first

recommended course of action is focused on goal setting, that the USAWC should specifically

set a goal that connects the strategy education curriculum to the AOC goal of 'winning in the

complex world.' The second recommended COA is to increase the time and attention paid to

current and emergent adversary concepts, doctrines, and forms of warfare in the USAWC

REP/DEP Strategy Education curriculum. The third COA is to expand existing USAWC Dept of

Distance Education (DDE) programs that currently provide strategists and strategic planners to

the Army and the Joint Force, namely the Defense Strategy Course (DSC) and the Defense

Planners Course (DPC). The fourth COA, suggested by USAWC faculty during interviews, is to

introduce strategy education earlier and more consistently over career-long Officer PME to better

prepare officers for effective work at 3 and 4-Star HQs.   And lastly, the fifth COA, also

suggested by USAWC faculty, is to increase faculty development opportunities with service in 3

and 4-Star HQs and Agencies focused on real-world challenges to support wider participation

among the faculty and thereby provide faculty members to bring recent real-world experience

into the classroom. This last COA has two means of execution, the first is an expansion of the

current model of sending USAWC faculty to support peacetime planning, and the second is to

send faculty to participate in major CCMD and ASCC exercises focused on OPLANs and

CONPLANs.   Table 13 below provides the association of KMO influences to the proposed

recommendation.

Table 13

Summary of Recommended Solutions Associated with Validated Influences

Recommendation	Validated Influence(s)
Recommendation 1: U.S. Army War College (USAWC) articulate goals specifically in terms of Strategy Education contributions to "The U.S. Army Operating Concept (AOC): Win in a Complex World" and support imperative in the AU White Paper to improve PME.	K3, K4, K5 M1, M2, M3, M4, M5 O1, O3
Recommendation 2: Increase time and attention paid to developing and emergent adversary concepts, doctrines, strategies and forms of warfare in the Resident Education Program (REP) and Distance Education Program (DEP) curricula.	K1, K2, K3, K4, K5 M1, M2, M3, M4, M5
Recommendation 3: Expand existing USAWC Dept of Distance Education (DDE) programs that provide strategists and strategic planners to the Army and the Joint Force, namely the Defense Strategy Course (DSC) and the Defense Planners Course (DPC).	O1, O2, O3
Recommendation 4: Introduce strategy education earlier and more consistently over career-long Officer PME to better prepare officers for effective work at 3 and 4-Star HQs.	K5 M1 O1, O2, O3
Recommendation 5: USAWC increases Faculty Development opportunities with temporary duty in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation in the faculty.	K1, K3, K4, K5 M1, M2, M3, M4, M5 O1, O2, O3

Recommendation #1 – Articulate Strategy Education Goals to Support the Army

Operating Concept (AOC)

Clark and Estes (2008) explain that organizations need to be goal-driven, and these goals need to be linked to the organization's business, or mission goals. Faculty interviews and document analysis did not reveal that the USAWC had set a goal to link strategy education to the AOC. This researcher has proposed the following goal, "By academic year 2020/2021, the USAWC faculty will align learning objectives (LOs) in the strategy education curriculum to support the Army Operating Concept goal of 'winning in a complex world' and prepare USAWC graduates for service at 3 and 4-star HQs in the development and execution of effective theater military strategies." Dembo & Seli (2016), point out that the very process of undertaking goal-setting is one way to enhance efficacy and task accomplishment. Setting a clear goal is the surest way to focus the USAWC faculty on developing a strategy education curriculum that supports the AOC via graduates who have mastery-level competence in theater military strategy and campaigning against the current and future threats. The goal must be clear, as, "vague goals destroy work motivation" (Clark & Estes, 2008, p. 87).

Theater operations is one of four domains of knowledge addressed by The USAWC's Institutional Learning Objectives (USAWC, 2018d). This area of focus includes developing appropriate theater military strategies that respond to the unique security threats facing the Combatant Commander to support effective deterrence during the competition phase. USAWC alumni surveys identified theater military strategy development as an important topic for the curriculum (USAWC, 2018h), while USAWC General Officer surveys identified joint strategy and military strategy as requiring, "greater curriculum emphasis" (USAWC, 2018h, p. 21).

To implement this recommendation, the USAWC would need to begin with an assessment of how its strategy education curriculum supports the Army Operating Concept of 'winning in complex world' to see where improvements might be made. This would support

development of goals and objectives to propose to the CSA and TRADOC for endorsement, that

would articulate how USAWC curriculum and programs will support the AOC. Once approved,

the USAWC would publish goal internally to Army leaders, and then publicly via Army public

affairs websites, journal article, and other means, along with the elements of a strategy for how it

will accomplish it. As faculty interview comments reveal, faculty abilities to develop effective

curriculum vary. Refinement of the content of the curriculum must also focus on improving

delivery of the curriculum in the classroom to ensure effective transfer of knowledge.

Recommendation #2 – Increase time and attention paid to developing and emergent
adversary concepts, doctrines, strategies, and forms of warfare in the Resident Education
Program (REP) and Distance Education Program (DEP) curricula.

USAWC faculty survey responses identified factual and conceptual gaps in the

curriculum regarding adversary concepts, doctrines, strategies, and forms of warfare that

characterize the security environment of the complex world. Faculty survey responses on

prioritization of the adversary concepts, doctrines, strategies, and forms of warfare for USAWC

students to learn demonstrated awareness of these concepts as all were deemed important for

students to learn. The Army Human Dimension Strategy (designed to support the AOC) lists as

a key task, "Appreciation of the Complex Operational Environment" and calls for developing

Army leaders, "who can understand the complex nature of modern conflict" (HQDA, 2015b, p.

14). Interviews reinforced the survey results convincingly that the USAWC faculty teaching

strategy are at least familiar with these adversary concepts, doctrines, strategies and forms of

warfare. However, the faculty also provided significant evidence that these topics were not

sufficiently explained to students via the curriculum (see Table 6 in Chapter Four), and that an

unacceptable proportion of students would be either "somewhat be able to recognize" or "unable

to recognize" these concepts, doctrines, strategies, and forms of warfare in the real world, and surprisingly some faculty responded that the subjects are not being taught at all in the USAWC curriculum (see Table 7 in Chapter Four). The recommended solution is to revise the curriculum to respond to the changing forms of warfare and adversary concepts and doctrines to improve learning and performance outcomes for USAWC students. This task could begin at the start of the 2019/2020 Academic Year with immediate changes within the course directives, and longer-term changes in the overall integrated curriculum. Goal-setting will shape the timeline for execution of this proposed recommendation. Implementing this recommendation would require the ongoing USAWC curriculum review process to deliberately focuses on whether or not adequate time and attention are focused on ensuring students understand the Adversary's concepts, doctrines, strategies, and forms of warfare that are in play during the phase zero / competition phase, and which characterize the operating environment of the Complex World.

Recommendation #3 – Expand existing USAWC Dept of Distance Education (DDE) programs that provide strategists and strategic planners to the Army and the Joint Force, namely the Defense Strategy Course (DSC) and the Defense Planners Course (DPC).

USAWC can start to have a real impact on how many strategists and strategic planners it can provide to the Army and Joint Force by scaling up two successful programs that take advantage of distance-learning methods. Graduates form these programs have the skills needed in the 3 and 4-Star HQs to respond to the Complex World in peacetime, crisis and war. This proposal acknowledges the challenges USAWC faculty have in putting together a revised curriculum to meet the proposed goal, while simultaneously balancing the need to meet competing requirements from Officer Professional Military Education Policy (OPMEP), Chief of Staff of the Army (CSA), SECDEF, accreditation for master's degree, etc. within the REP/DEP

curricula and time schedules. This proposal side steps those issues by solving the problem

through other programs, not focused on the Senior LTCs and COLs who are board-selected for

REP and DEP by increasing capacity for the two USAWC DE programs developing strategists

and planners. Each of these programs is run with bare essential manning of two faculty and

produces 200 graduates annually. Doubling the output capacity might therefore be possible with

hiring, or re-tasking of four faculty.

The eleven-week TRADOC-approved DPC was first created as a pilot program in

recognition of feedback from the field (operational HQs) that there was a gap in education.

Specifically, the gap identified was that officers coming from the Command and Staff College

were not prepared to serve on 3 and 4-Star HQs. The Field Grade PME for LTCs and below

only prepared officers to work at Brigades, Divisions, and Corps, providing little in the way of

preparation for duty at an ASCC or Theater Army.

Interviews with USAWC faculty revealed that the Army's Field Grade PME does not

provide sufficient instruction in the strategy education curriculum prior to the USAWC.

Scanning interviews conducted by this researcher in August 2018 and March 2019 with faculty

at the School for Advanced Military Studies confirmed that the PME at Fort Leavenworth does

not address theater military strategy. Said one USAWC faculty interview respondent of Army

Field Grade PME prior to USAWC, "We don't teach anywhere out there about strategy. We don't

teach anywhere out there about vision" these are required at 3 and 4-Star HQs, and developed via

cross-functional staff coordination led by Army Colonels and Lieutenant Colonels. The DSC

and DPC programs can address this gap and provide well-educated officers for service on the 3

and 4-Star HQs.

DPC graduates obtain the Additional Skill Identifier (ASI, a professional credential) of 3H, Joint Planner. Officers who complete the Joint and Combined Warfighting School of the Joint Forces Staff College, or complete Joint PME, also receive this ASI (HQDA, 2014C). CGSC students enrolled in the Master of Military Arts and Sciences (MMAS) can also obtain this ASI through via completion of the Joint Planner Program as an elective, meaning that relatively few CGSC graduates will obtain up this skill. The 3H Additional Skill Identifier is available to CGSC students (CGSC,2014, Circular 350-5, App. 3), but is not offered at the Army War College. Faculty interviews revealed that many of the board-selected students report to the USAWC without any experience in theater military strategy and campaigning, reinforcing the existence of a PME gap compared to the needs of the Army and Joint Force units in the field.

Army Service Component Commands were quick to take advantage of this program to improve mission performance. The DPC can even work with an ASCC that is about to develop an OPLAN or campaign plan to prepare the students for the task, using the existing Theater Military Strategy (TMS) as a teaching resource, and work alongside them to complete or validate the plan. Interviews with USAWC faculty revealed that feedback from these commands on the program has been very favorable. Demand for slots exceeds supply, and the Joint Force, Department of State, and the Inter-Agency community are all asking for slots in this highly-effective, low-cost program. Current demand is consistently around 130% of available slots without any advertising, and this program is promoted by 'word of mouth' and the experiences of supported units and graduates.

The Defense Strategy Course (DSC) is offered twice a year by the USAWC Department of Distance Education as a four-month, online course with a total enrollment of 115 officers per course (230 per year), who must be selected by a board convened semi-annually by the Army

Human Resources Command. The DDE faculty believe that with additional faculty, this could

be increased to 300 to 400 per year. As explained in Chapter Four, the final section of the course,

Policy Development and Security Environment, is focused on the challenges of ASCCs and

CCMDs.   Like the DPC, completion of the course results in the award of an additional skill

identifier, which for DSC is 6Z (ASI 6Z) 'Strategic Studies Graduate.' As with the 3H ASI, 6Z is

not available to USAWC REP and DEP students, but is obtained at CGSC for students enrolled

in the strategist program (CGSC, 2014).   CGSC students designated to the Career Field 59 must

enroll in this program, but others may also apply (CGSC, 2014).   The awarding of an ASI means

that Army Human Resources Command (HRC) can track graduates and select them for

assignment to 3 and 4-Star HQs with greater assurance that they will able to contribute to

development and execution of theater military strategies upon arrival. The DSC program is

administered by a single member of the USAWC Department of Distance Education, who is

supported by reserve officers who serve as assignment readers/graders and is therefore can be

scaled up with additional faculty.

Implementing this recommendation would require coordination with TRADOC and

HQDA G-3/5/7 to determine demand signal from for ASCCs, CCMDs, Sub-unified HQs for

each program. USAWC would need to solicit input on how and whether these HQs would be

able to fill an increased allocation of slots. To properly man the effort, the USAWC would need

to determine additional faculty and support personnel required to support new levels of

enrollment. Once proven feasible, and with clear ASCC and CCMD support, the USAWC

would need to coordinate with HRC and TRADOC for more authorizations for faculty to expand

throughput for DSC and DPC. If authorizations are provided, the USAWC would then hire

additional civilian faculty to jumpstart expanded enrollment. In the interim, these personnel

would need to be re-assigned from existing faculty.

Recommendation #4 – Introduce strategy education earlier and more consistently over

career-long Officer PME to better prepare officers for effective work at 3 and 4-Star HQs.

This recommendation is part of a broader effort that the USAWC is leading as the Army

proponent for strategy education, to develop a coherent strategy education curriculum and

learning objectives to be integrated into other Army Professional Military Education (PME)

courses for Officers, Warrant Officers, Enlisted and Army Civilians. This recommendation is

focused only on Officer PME. Faculty interviews consistently pointed out that students arriving

at the USAWC lacked sufficient preparatory education in strategy. Some work has been done on

this over the last four years, but is not yet consolidated into a published strategy and curriculum

(Valledor, 2015, USAWC, 2018n). As the lead for strategy education for the Army, the

USAWC has held a series of conferences and symposia to determine how the skills of a strategic

leader will be developed over the course of a full military career in order to prepare Army

leaders for the strategy education curriculum once selected for the Army War College (Valledor,

2015). Strategy-focused learning objectives for point-in-career Service schools have been

suggested in past assessments of Junior Officer PME (Forsythe, 1992; J. Galvin, 1989; Godfrin

2011; Keister, Slanger, Bain, & Pavlik, 2014; Lewis, 2006; Ogden, 2017). These are based on

OPMEP directives which provide Joint PME guidance for all five PME levels.

While the emphasis of Junior grade Officer PME rightly remains on mastery of tactical

level skills and tactics for immediate application, there are benefits for introducing strategy to

junior officers. This is increasingly the case as small units are deployed at the point of the

strategic spear in dangerous operational environments where tactical operations can have

strategic consequences in the complex world. The CJCS OPMEP explains that the joint

emphasis for primary level JPME for Company Grade Officers (2nd Lieutenant to Captain (O-1

to O-3)) includes comprehending the characteristics of a joint campaign, and contributing to

Joint Campaigning as a member of a Joint Force (CJCS, 2015a, pp. E-B-3 and A-A-A-1).   This

JPME instruction is to be added to the Officer Basic Course (first professional school for

Lieutenants) and the Captain's Career Course (for Captains). Additional guidance for primary

level JPME found in the OPMEP explains:

> JPME prepares officers for service in Joint Task Forces (JTF) where a thorough
>
> introductory grounding in joint warfighting is required. The programs at this level
>
> address the fundamentals of joint warfare, JTF organization and the combatant command
>
> structure, the characteristics of a joint campaign, how national and joint systems support
>
> tactical-level operations, and the capabilities of the relevant systems of the other services
>
> (CJCS, 2015a, App A, p. A-A-6).

As discussed in Chapter Four, the USAWC has hosted conferences starting in 2014 to

bring together the Strategy Education Community of Interest (SE CoI) to pursue this effort. The

most recent of these, the Strategic Education Symposium, held September 25-27, 2018 had as its

objective to, "develop cohort/rank specific execution recommendations" for the 5 levels of PME

across the 4 cohorts of personnel (Officer, Warrant Officer, Enlisted, and Civilian) for

presentation to the ALCC GOSC in October of the same year (USAWC, 2018n).   To carry out

this recommendation with a specific focus on supporting Officer PME and enabling 3 and 4-Star

HQs to 'win in a complex world,' the USAWC, in coordination with TRADOC, would develop

appropriate Learning Objectives (LOs) for Officer Schools and courses to integrate strategy

education at each stage of an officer's career starting with pre-commissioning instruction. These LO's would be sequenced from Company Grade courses, through ILE up to the War College.

The USAWC could also make a direct contribution to this effort by implementing the John J. Pershing Strategic Certificate Program highlighted in Chapter Four. This program could make significant contributions to the level of strategic-mindedness of the Officer Corps, as graduates of the program are promoted in rank, and one day are selected to attend the Army War College. Beyond this, the USAWC should develop learning objectives for the pre-commissioning, and the basic and advanced company grade officer courses. To implement this recommendation, the USAWC would need to develop a career-long set of learning objectives for strategy education for officers, starting at Company Grade that is integrated with: 1) the AU Army Learning Strategy; 2) U.S. Army Learning Concept; 3) the Army Human Dimension Strategy, and; 4) the Army Leader Development Strategy. This long-term approach will improve preparation of officers to address strategic-level issues, ultimately leading to incoming USAWC classes who have received strategic-level instruction over their entire officer career.

Recommendation #5 – USAWC increases Faculty Development opportunities with service in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation in the faculty.

This proposal, suggested by current USAWC faculty, builds on a successful program whereby the USAWC provides Research and Instructor faculty to Army and Joint organizations to support policy or strategy development. Objective 3.2, Education, in the Army's Human Dimension Strategy calls for increasing educational effectiveness through several lines of effort, to include faculty development. Per the Army HDS, the USAWC is appointed as the Office of Primary Responsibility for implementing this. (HQDA, 2015b, p.9). The HDS, "supports the

Army Operating Concept, which describes how future Army forces will prevent conflict, shape security environments, and win wars while operating as part of our Joint Force and working with multiple inter-organizational and multinational partners" (HQDA, 2015b). As the lead for employing faculty development in support of the AOC per the HDS, this proposal is one that will be popular with the faculty who will improve their professional knowledge, while at the same time will directly support the 3 and 4-Star HQs in the field with researchers/instructors who will bring recent and operationally relevant theater-level strategy and plans experience back to the USAWC classrooms.

Faculty interviews revealed that this activity was recently supported with funds $7k provided by the USAWC Provost. Funding could be increased to permit more faculty to travel to the CCMDs each year, or to spend more time 'on the ground.' While this will increase travel costs, it will also benefit USAWC faculty through operational experience and knowledge gained. The USAWC would need to assess how many additional faculty could be spared to participate in an expanded program to provide faculty support to ASCCs, sub-unified commands, and CCMDs. To start, the USAWC would need to assess the potential demand signal from these commands presenting this as a proposed expansion of current efforts. USAWC could consider implementing a nomination process from these commands for priority and feasibility ranking, and to ask them to consider providing invitational travel orders, or transfer travel funds to USAWC for travel to and from the ASCC, sub-unified, or CCMD. Depending on demand, the USAWC would need to determine if faculty growth is necessary to permit more faculty to participate without impact to REP and DEP. The alignment and assignment of faculty to supported organizations would need to consider both where are there are opportunities (organizations willing to participate), and faculty available (based on their specialization and

assigned workload).   The program may need to be limited to a particular time(s) each year to

eliminate conflicts with the USAWC REP and DEP. If additional faculty are required to be hired

to backfill this effort, then hiring actions would need to be approved, and then undertaken before

commitments could be made to the ASCCs and Joint Commands. USAWC may need to

coordinate with TRADOC and Army Human Resource Command for additional faculty to cover

down on instruction while faculty are on temporary duty (TDY) to ASCCs and CCMDs. The

main constraints for this recommended recommendation are funding for travel and personnel

authorizations if more faculty are required.

An alternative, or addition to this recommendation that is less resource intensive is to

arrange for USAWC Faculty to participate in major exercises at the CCMDs as an augmentation

to the CCMD or ASCC Staff in a short temporary duty (TDY) capacity. This would require less

time away from the campus, but would allow USAWC faculty observe firsthand the challenges

of FG Officers at the CCMDs and ASCCs under high-stress exercises that challenge the staff.

As part of the TDY, USAWC faculty would also participate in the development of the After

Action Review (AAR) process to fully capture shortfalls in execution that might be addressed in

the USAWC curriculum. The CCMDs already have a strong demand for augmentation during

major theater-level exercises designed to train the staff and test concepts and plans for

warfighting and contingencies. The CCMDs have established procedures for augmentation

during these exercises and would welcome the senior-level experience of USAWC military and

civilian faculty. Selected personnel would fill staff positions for the exercise and would likely

have to complete pre-exercise training to gain familiarity with the HQs battle-rhythm and the

specific CCMD OPLAN or CONPLAN the exercise is focused on. Major exercises tend to

reveal shortcomings in procedures, manning, training, concepts, and organization to an extent

that faculty will gain a true appreciation of the demands on USAWC graduates assigned to these HQs, and where changes to the curriculum might be made to improve the readiness of USAWC graduates to perform upon arrival at the CCMD or ASCC HQs. Temporary duty to CCMD, sub-unified command, and ASCC exercises would provide USAWC faculty a bonanza of findings on how to improve strategy education curriculum, as the faculty would observe FG Officers in the crucible of the real-world, performing in the role of strategic planner for 3 and 4-Star Commanders with challenging real-world focused exercises.

Summary of Proposed Solutions

The five recommendations on the preceding pages address the 11 validated influences (gaps) for the Army War College to accomplish the proposed organizational mission. These recommendations are not required to be executed in sequential order, but are presented in a logical sequence, based on task flow and achieving some change in curriculum and delivery of services to the Army and Joint Force. Recommendation #1, goal setting, should be conducted first to provide clear guidance to USAWC faculty to revise its curriculum, and to the Army on what the USAWC will do with its appointed lead for Strategy Education for the Army. Clear goals will allow for progress along many efforts. Recommendation #2 allows the USAWC to make changes within the courses themselves before the start of the 2019/2020 Academic Year that can be reflected in later more thorough curriculum revisions for future years. Recommendation #3 allows the USAWC to immediately provide more qualified strategists and theater-strategic capable planners to the Army and Joint Force with reinvestment of faculty resources until new faculty hires are authorized. The demand for the DPC and DSC has consistently outstripped supply, and it is time to give the Army and Joint Force what they need to develop and execute effective theater military strategies to win in a complex world.

Recommendation #4 is longer-term, but appropriate for fulfilling the appointed lead role for

strategy education for the Army.   Faculty interviews consistently pointed to the conclusion that

officers need strategy education earlier in their careers, a finding that has been supported by

other research, some of it conducted at the USAWC (Jordan, 2004; Lewis, 2006; Godfrin 2011;

Keister, Slanger, Bain, and Pavlik, 2014). The USAWC can have immediate impact on this

recommendation via full implementation of the John J. Pershing Certificate Program detailed in

Chapter Four. Recommendation #5 is a faculty-suggested solution that has proven to provide

great benefit to the ASCCs and CCMDs who have received this support. USINDOPACOM and

U.S. Army Pacific (USARPAC), for example, have benefitted greatly from the work of USAWC

faculty support in developing theater military strategy and campaign assessment efforts. A recent

example includes USAWC support to USARPAC and USINDOPACOM with their study on

Multi-Domain Operations in 2018 at the Landpower in the Pacific Symposium (AUSA, 2018b).

Other recommendations that were suggested by faculty were considered, and these will be

addressed in a following section on possible future research.

Implementation Plan

The Army War College finished the 2018-2019 Academic Year in May 2019, and will

need to consider and apply the first three recommended solutions for immediate impact to the

force. Leadership and faculty will be challenged to implement these recommendations in the

remainder of 2019, but can make some progress and begin to move toward accomplishing the

proposed goal. The major resource required is the time of the faculty, and the number of faculty

available to take on these new tasks. Initially, faculty resources will have to come from within

current manning to start these efforts, while at the same time approaching TRADOC and the

Army to make the case that these resources are required to accomplish assigned missions, roles,

and tasks from the Army and the CJCS (via OPMEP). The table below outlines the action steps

for each recommendation along with resource requirements and approximate timelines.

Table 14

Summary of proposed recommendations, action steps, resources and timelines

Recommendation	Action Steps	Resource Requirements	Timeline
Solution 1: Army War College (USAWC) articulate goals	USAWC sets goals, seeks inputs from Army Leaders	• Leader commitment • Staff faculty time and faculty expertise	Sep 2019
	USAWC seeks TRADOC and HQDA endorsement of goals	•Time •Leader engagement	Sep-Oct 2019
	USAWC publishes goal as TRADOC lead for Strategy Education	• Time • Leader engagement • Public Affairs support	Nov 2019
Solution #2 Increase time and attention to adversary forms of warfare, concepts and doctrines	Conduct formal curriculum review to identify where to add content.	• Leader prioritization to create time on the calendar • Faculty time and expertise	Aug 2019
	Faculty set priorities for instruction	• Leader prioritization to create time on the calendar • Faculty time and expertise	Aug 2019
	Faculty determine where and when to integrate material into courses.	• Faculty time and expertise	Aug 2019
Solution #3. Expand DDE programs supporting need for strategists and strategic planners.	USAWC assess if student output can be accomplished with current manning.	• Faculty time and expertise	Aug 2019
	In coordination with TRADOC, determine what assets could be pulled or shared from across Army University to meet faculty requirements.	• Time • Leader engagement	Sep 2019
	Propose plan to TRADOC for scaling up DDE programs with permanent manning solutions.	• Leader engagement • Faculty time and expertise • Time	Sep 2019
	DSC: assign additional faculty and readers to manage increased student load.	• Faculty re-assignment	Oct 2019
	DPC – assign additional faculty to manage increased student load.	• Faculty re-assignment	Oct 2019

Table 14, continued

Recommendation	Action Steps	Resource Requirements	Timeline
Solution #3 (continued)	Begin additional course iterations of DPC/DSC.	• Faculty training to run new course (hire new or re-assign)	Jan 2020
Solution #4. Introduce Strategy Education earlier in Officer PME	USAWC solicits inputs from Army Schools on reform effort for career-long Strategy Education PME.	• Leader engagement	Sep 2019
	USAWC develops appropriate Program Learning Objectives (PLOs) for Army Schools	• Leader prioritization to create time on the calendar • Faculty time and expertise	Sep - Oct 2019
	USAWC publishes draft strategic concept to outline the new career-long strategy education plan.	• Leader engagement • Public Affairs support	Nov 2019
	USAWC resources the John J. Pershing Certificate Program to make a direct contribution to company-grade strategy education	• Faculty training to run new course (hire new or re-assign) • 7 Full Time Equivalents (FTE) are required: - 3 Full-time (Title 5) positions: 1) Program Manager, 2) Ed Tech, and; 3) Institutional Support) - 4 part time (Title 10) positions: 1) Two Course Directors, and; 2) Two (1/2 time) elective coordinators.	
Solution #5. USAWC increases Faculty Development opportunities in ASCC/CCMD	Assess level of interest in faculty participation for both steady-state planning (current model) and OPLAN/ CONPLAN-based exercises.	• Leader engagement	Aug 2019
	USAWC solicit demand signal from CCMDs and ASCCs	• Leader engagement • Faculty outreach	Sep 2019
	Determine if additional faculty required to offset absences and request manning to TRADOC and HQDA.	• Faculty time and expertise • Leader engagement	Sep 2019
	Commence additional TDY support to ASCCs and CCMDs	• Leader engagement • Travel funds	Dec 2019 / Jan 2020

Evaluation Plan

Kirkpatrick Evaluation Model

Clark and Estes (2008) state that an evaluation of the implementation of new programs is, "an absolutely essential ingredient when you are attempting to close performance gaps or improve performance," and is the only way to determine the impact of improvements made or attempted (p. 125). The implementation evaluation plan proposed for the USAWC is modeled after the "New World Kirkpatrick Model," (Kirkpatrick J., & Kirkpatrick, W., 2019), an updated version of the original "Four Levels of Evaluation Model" developed by Donald Kirkpatrick in 1959 (Kirkpatrick, D. and Kirkpatrick J. (2006)) to evaluate organization training programs. The original Kirkpatrick model introduced the four levels of evaluation: 1) Level 1"Reaction;" 2) Level 2 "Learning;" 3) Level 3 "Behavior," and; 4) Level 4 "Results" (Kirkpatrick and Kirkpatrick, 2006). The New World Kirkpatrick Model starts the process with level 4, which is, "some combination of the organizational purpose and mission" (Kirkpatrick, J. & Kirkpatrick, W., 2019, p. 5).   For this evaluation, the purpose is the proposed organizational goal. The model calls for developing an evaluation plan by starting with the organization's end goal, and then working backward to identify what and how to evaluate, by identifying the, "leading indicators" that demonstrate progress through the 4 levels. In execution, the evaluation progresses from levels 1 to 4. Clark and Estes (2008) slightly modified the descriptors of the levels to better focus on organizational programs or initiatives beyond just training as described in the table below (p. 128). As the USAWC is implementing organizational program changes, the Clark & Estes terminology was used, alongside the Kirkpatrick & Kirkpatrick descriptions (2019), to better support identification of actions and end states for each level.

Table 15

Clark and Estes Modified Four Levels of Evaluation

Four Levels of Evaluation		
Level of Evaluation:	**Kirkpatrick description** (Kirkpatrick, J., & Kirkpatrick, W. (2019)).	**Clark & Estes modification**
Level 1: Reflections	Participant Satisfaction.	Are the participants motivated by the program? Do they value it?
Level 2: Impact During the Program	Commitment to the goal. Confidence in the course of action.	Is the system effective while it is being implemented?
Level 3: Transfer	The degree to which participants apply what they learned during training when they are back on the job.	Does the program continue to be effective after it is implemented?
Level 4: Bottom Line	The degree to which targeted outcomes occur as a result of the intervention or training.	Has the transfer contributed to the achievement of organizational goals?

Analysis of Levels 1-4 Applied to the Army War College

The proposed recommendations are comprehensive courses of action (COAs) that the

USAWC may employ to achieve the proposed organizational goal. Each one of these proposed

recommendations will have its own unique set of observable actions and outcomes to support

evaluation. In every case, these recommendations are to be carried out by the USAWC faculty

and administration. Kirkpatrick (2006), explains that for evaluations to be effectively conducted,

the organization leadership must have the support of managers, which for USAWC are the senior

faculty and Department Chairs. Obtaining this support requires encouragement to ensure

positive attitudes about the assessment task (Kirkpatrick, D., 2006).   The Kirkpatrick model

(2006) emphasizes that success of the implemented programs or solutions require managers and

leaders, "to establish an encouraging climate regarding the program" (p. 6.).   This aspect is

common to all COAs for level 1 evaluation, and requires the senior leadership to set the stage.

To effectively conduct an evaluation, those executing the program and providing input to levels

1-3 must have a positive attitude the program being implemented, or the organization will not be

able to evaluate effectively (Kirkpatrick, D., 2006). Level 1 assessment can be accomplished by assessing the motivation level of participants toward the proposed solution (Clark & Estes, 2008). Level 2 evaluation targets the impact of a program while it is being implemented to assess if KMO gaps are being closed (Clark & Estes, 2008). Level 3 assessments look for performance improvement transfer and durability of the change after implementation. Clark & Estes point out that, "people tend to revert to previous patterns" until the new program takes hold, which is one reason why this level is important to assess if the program is still on-track. Evaluating level 3 can be accomplished, in part, by surveys or interviews of a sample of those who are receiving the education and training (students), as well as their supervisors and co-workers (faculty while students, and their future supervisors in follow-on assignments upon completion of USAWC) (Clark & Estes, 2008). Accordingly, the GO and Alumni surveys that USAWC already conducts may be harnessed to assess level 3.   Level 4 assessment requires an assessment of the impact on the organizational mission and goal accomplishment. Again, assessments from the supported stakeholders, namely the 3 and 4-Star HQs, will reveal impact. These HQs may be queried via surveys or direct engagement to assess if the Army War College has improved its mission accomplishment. The following tables provide an overview of the evaluation plan for the 5 proposed recommendations. The first table provides the USAWC an implementation evaluation guide to develop its own organizational goal for strategy education with clear linkages to the Army Operating Concept.

Table 16

Evaluation Matrix for Levels 1-4 Inputs for Recommendation 1

Recommendation 1: Army War College (USAWC) articulate goals specifically in terms of Strategy Education contributions to "The U.S. Army Operating Concept (AOC): Win in a Complex World" and support imperative in AU White Paper to improve PME.

Level 1: Reflections	Level 2: Impact During the Program	Level 3: Transfer	Level 4: Bottom Line
• USAWC faculty are accepting and supportive and contribute to the development of an organizational goal tying Strategy Education to the AOC. • USAWC's existing efforts to advance strategy education across Army PME are assessed for contributions to the AOC and support AU White Paper. • USAWC Faculty conduct assessment of how the core curriculum supports the AOC.	• USAWC publishes an organizational goal linking its curriculum to accomplishing the AOC and imperative to improve PME in AU White Paper from perspective of Strategy Education. • USAWC Faculty know the organizational goal, and relationship of strategy education to accomplishing the AOC and imperative to improve PME in AU White Paper.	• USAWC faculty conduct revision of curriculum based on findings of assessment. • Faculty can articulate how their courses and lessons support AOC and AU White Paper goals. • Faculty can point to specific changes in curriculum or course content to show how it is supporting the AOC goal of winning in a complex world during the 'peacetime' competition phase. • USAWC Strategy Education better prepares its graduates for duty at 3 and 4-Star HQs to prevent conflict, shape security environments, control crises, and win wars.	• USAWC surveys of General Officers should include question on whether or not USAWC graduates demonstrate improved skills in TMS formulation and campaigning. • USAWC surveys of graduates target those who are assigned to 3 and 4-Star HQs to assess how well the curriculum prepared them to support TMS formulation and campaigning. • USAWC Faculty supporting the CCMDs solicit CCMD J5 feedback on curriculum changes. • Faculty assessment of student work in the TSC, JLASS and other electives in developing TMS and campaign plans show improved quality of work in developing TMS and campaign plans.

The evaluation table above is not exhaustive and the USAWC faculty may develop

additional observable/measurable reactions and results that would indicate the published goal

was understood and accepted and undertaken by the Strategy Education community of interest.

The tables that follow in this section provide the evaluation matrices for recommended solutions

identified by the USAWC faculty themselves.

Table 17

Evaluation Matrix for Levels 1-4 Inputs for Proposed Recommendation 2

Recommendation 2: Increase time and attention paid to developing and emergent adversary concepts, doctrines, strategies and forms of warfare in the Resident Education Program (REP) and Distance Education Program (DEP) curricula.

Level 1: Reflections	Level 2: Impact During the Program	Level 3: Transfer	Level 4: Bottom Line
• USAWC faculty are accepting and supportive of the new level of emphasis on adversary concepts, doctrines, and forms of warfare employed in the Complex World.	• USAWC faculty determine the trade-offs for spending more time and attention to the concepts, doctrines, and favored forms of warfare of potential adversaries. • USAWC faculty set priorities for which of these concepts, doctrines, and forms of warfare merit more attention. • USAWC faculty identify where to make changes to current curriculum or instruction methods to increase student knowledge on the prioritized concepts, doctrines and forms of warfare.	• Pre and post instruction surveys measure student knowledge of the various adversary concepts, doctrines, and forms of warfare characterizing the complex world. • Course materials (Course Directives for the core REP/DEP curricula) more clearly demonstrate where these various forms of warfare are being covered and in what manner (lecture, assigned reading, seminar discussions, etc.) • USAWC Strategy Education better prepares its graduates for duty at 3 and 4-Star HQs to prevent conflict, shape security environments, control crises, and win wars.	• USAWC surveys of GOs and Graduates at 3 and 4-Star HQs should include question on how well graduates were able to grasp an appreciation of how theater adversaries combine elements of their concepts and doctrine to field unique hybrid combinations of forces and means. • Contributions of USAWC graduates in TMS formulation and campaign planning are of higher quality and are developed more quickly in response to peacetime competition challenges.

As Recommendation 2 is focused on curriculum content, the current methods employed by the USAWC are readily applicable to measuring effects. The end focus is on whether or not the changes in curriculum better prepare USAWC graduates for service at 3 and 4-Star HQs in the areas of developing theater military strategies and the theater campaign plans that support them. The following table will examine how the USAWC can provide more strategists and strategically-minded planners to the Army and Joint Force with programs outside the core REP/DEP curriculum by expanding programs that have already proven to be making a difference at 3 and 4-Star HQs operating in the Geographic CCMD AOR.

Table 18

Evaluation Matrix for Levels 1-4 Inputs for Proposed Recommendation 3

Recommendation 3: Expand existing USAWC Dept of Distance Education (DDE) programs that provide strategists to the Army and the Joint Force, namely the Defense Strategy Course (DSC) and the Defense Planners Course (DPC).

Level 1: Reflections	Level 2: Impact During the Program	Level 3: Transfer	Level 4: Bottom Line
• USAWC faculty are accepting and supportive of the increased investment of faculty and other resources into these strategist-producing programs. • HQDA G-35 Directorate (responsible for establishing and sourcing Army global requirements for strategists) supports USAWC to produce more certified strategists through DSC. • The Army War College assesses how it might increase DSC and DPC graduate output with current resources.	• In coordination with TRADOC, determine what assets could be pulled or shared from across Army University. • Propose plan for scaling up with permanent manning solutions. • DSC: Hire additional faculty and readers to handle student load. (No facilities required for this distance-learning course). • DPC – Hire additional faculty to manage increased student load. (No facilities required for this distance-learning course).	• DPC Stakeholders (ASCC and CCMDs) support the DPC course with requests for slots. • USAWC reallocates faculty to increase student output. • TRADOC provides additional resources to USAWC. • USAWC increases DSC enrollment authorization. • USAWC increases DPC enrollment authorization. • Additional DSC and DPC courses are filled. • DSC. Competition remains high, even with expanded offerings.	• DPC. USAWC employ stand-alone survey to supported Army and Joint Commands, and/or adds questions on DPC to GO surveys to gauge impact. GO survey questions ask for comparison assessment of DPC graduates before and after course completion. • DPC. Endorsement by CCMDs, ASCCs, and other major commands to have inbound officers to complete the course. • DPC. Increase in number of slots requested by Officers headed to 3 and 4-Star commands. DPC. ASCCs and CCMDs invest time and effort to send their officers to attend DPC. • DSC/DPC. ASCCs and CCMDs demonstrate preference for Field Grade Officers who are DSC/DPC graduates to serve in the HQs.

The table above reflects how critical resources will be to implementing Recommendation 2, particularly faculty needed to handle the additional student load. Indications of demand from

the field demonstrate the need, and therefore the impact this solution could have on the problem

of practice, by providing better-qualified officers to 3 and 4-Star HQs engaged in the competition

phase.   The following table provides observable/measurable indicators for improving strategy

education over an officer's career-long strategy education.

Table 19

Evaluation Matrix for Levels 1-4 Inputs for Proposed Recommendation 4

Recommendation 4: Introduce strategy education earlier and more consistently over career-long Officer PME to better prepare officers for effective work at 3 and 4-Star HQs.			
Level 1: Reflections	**Level 2: Impact During the Program**	**Level 3: Transfer**	**Level 4: Bottom Line**
• Participants demonstrate satisfaction, commitment to the goal and confidence in the course of action. • USAWC faculty are accepting and supportive of participating in the effort to develop career-long learning objectives for the strategy education component of Officer PME. • Faculty identify the building blocks for developing strategic leaders starting at the Company Grade level of PME. • USAWC commits to resourcing the John J. Pershing Certificate Program.	• The USAWC, in coordination with TRADOC, develops appropriate Learning Objectives (LOs) for Army Schools to integrate strategy education at each stage of an officer's career starting with pre-commissioning instruction. These PLO's would be logically sequenced from Company Grade courses, through ILE and at the War College. • USAWC implements the John J. Pershing Certificate Program with currently available faculty resources, (or plans for implementation at a later date with additional resources requested to TRADOC) to make a direct contribution.	• USAWC publishes draft strategic concept to outline the new career-long strategy education plan. • Army Schools are supportive of USAWC drafted LOs for strategy education and implement them successfully. • Army Officers selected for assignments to 3 and 4-Star HQs compete for distance learning slots in the John J. Pershing Certificate Program filling available slots. • ASCCs and CCMDs request delivery of the Pershing Certificate program via MTT to support real-world planning, or to enhance Officer Professional Development (ODP).	• The career-long strategy is reflected in other Army professional development, career management, training/education and learning strategy document updates. • USAWC increases the proficiency of officers assigned to 3 and 4-Star HQs via the John J. Pershing Certificate Program. • USAWC-developed Strategy education curriculum is implemented across the Army School System. • The Commandant of USAWC is recognized as leading strategy education across the Army under his role as Vice Chancellor for strategic education.

Assessing the effectiveness of Recommendation 4 will require a longer time horizon,

except for those elements focused on Field Grade Officers. As with Recommendation 3, faculty

resources are a limiting factor for the contribution that USAWC would make via the John J.

Pershing Certificate Program. The following table provides assessment for the faculty

development solution that would result in improved instruction on theater military strategies and

effective campaigning at the 3 and 4-Star HQs in the CCMD AORs.

Table 20

Evaluation Matrix for Levels 1-4 Inputs for Proposed Recommendation 5

Recommendation 5: USAWC increases Faculty Development opportunities with service in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation.			
Level 1: Reflections	**Level 2: Impact During the Program**	**Level 3: Transfer**	**Level 4: Bottom Line**
• USAWC faculty express support for additional temporary duty at 3 and 4-Star HQs for professional development. • USAWC communicates intent to ASCCs and CCMDs to provide increased levels of support and asks these HQs to nominate projects.	• Number of CCMD requests for Faculty on temporary duty support for exercises and operational / planning support increases.	• Information and knowledge relevant to the strategy education curriculum gained by faculty results in tangible benefits to the College (e.g. updated course readings, improved scenario development, and visiting speakers from the supported organizations). • Increase in number/quality of USAWC research faculty products and publications following return to USAWC from tour of service in ASCCs and CCMDs.	• Results of USAWC graduate surveys indicate better preparation for work in 3 and 4-Star HQs as a result of faculty development and experience at these HQs. • Changes to curriculum resulting from FACDEV at 3 and 4-Star HQs improve strategy education curriculum. • Faculty support to ASCCs and CCMDs results in increased coordination between USAWC and operational Commands with benefits to the realism of scenarios, and instruction on development and execution of theater military strategies.

Assessment of Recommendation 5 is two-part, focusing both on the faculty experience, and the measurable contribution of direct support to the 3 and 4-Star HQs in the CCMD AORS. In addition to the GO and Graduate surveys, internal surveys of faculty experience and the 'return on investment' for time spent away from the College will be required to identify what benefits the USAWC reaps in terms of improved curriculum content, research, instruction, and student performance.

Strengths and Weaknesses of the Approach

The Clark and Estes (2008) performance gap analysis framework is entirely appropriate for the problem of practice and the organization studied, the USAWC. Units and organizations across the U.S. Army routinely conduct performance assessments against assigned tasks and missions. These performance assessments are known as after action reviews (AARs), which are doctrinally-based, and are focused on, "observed performance that enables Soldiers and leaders to discover for themselves what happened, why it happened, and how to sustain strengths and overcome weaknesses" (Yuengert, 2017, p. 14-7). At higher levels, the Army conducts gap analysis to identify gaps in functional requirements to support operational concepts (Yuengert, 2017, p. 3-15). Accordingly, performance assessments and gap analysis are familiar concepts to Army organizations. The gap analysis framework is largely carried out by obtaining the perceptions and beliefs about organizational effectiveness from the work force, which in this case is the USAWC faculty. For this study, identifying faculty perceptions and beliefs on performance gaps will be obtained through surveys and interviews. Obtaining faculty perceptions of performance gaps will enhance the development of consensus on the areas for improvement as solutions are considered for implementation.

Limitations and Delimitations

From the perspective of the selection of data collection methods, the study was limited in what information would be obtained via surveys, as the purpose of the survey was focused more on confirming whether or not faculty were aware of the AU White Paper and strategic plan imperative to improve PME in support of the AOC, and specifically in response to the changing character of war that has defined the current security environment known as the complex world. The survey performed its role precisely, and provided confirmation that faculty were familiar with current adversary concepts, doctrines, strategies and forms of warfare, and saw gaps in the curriculum on these topics that were important to student success at 3 and 4-Star HQs in the competition phase. However, a longer survey may have provided more. In the interest of presenting a low obstacle to participation in terms of time required to complete the survey, I opted to keep it limited to this purpose and rely on interviews, observations, and document analysis to answer the study research questions. The initial goal for survey participation was 35 faculty, and the actual result was 24. I did not allocate sufficient time for the Army Research Institute approval process necessary for authorization to conduct surveys and research at Army PME institutions, which delayed the approval and launch of the survey. Better planning for this step could have meant that the survey would be closed before the interviews began and would have allowed for probing questions informed by the percentage breakdown of survey responses, knowing the sense of the faculty on the issues raised in the survey itself.

Regarding interviews, my initial goal was to interview 8 faculty, and in a week, I interviewed 17 faculty members. Based on the many insights gained from these interviews, eight would almost certainly not have provided sufficient data from which to develop the 5 proposed recommendations, as multiple departments had to be consulted to understand the highly inter-connected body of Strategy Education curriculum that is distributed across the faculty. I was

fortunate to receive advice from the Department of Military Strategy Planning and Operations

Chair early on to interview faculty from multiple departments, and was also fortunate to have

such great support from USAWC faculty who, while quite busy, graciously made time, even late

into the evening, to conduct the interviews.

Regarding document analysis, the time on-the-ground at the Army War College was

brief, just one week, which imposed limits on document identification, location, and collection

from the USAWC library and document storage rooms. Many documents were provided as the

result of interviews with faculty who were very supportive in suggesting and later providing

internal documents not found online. Development of recommendations was heavily dependent

on document analysis, and so the study may have benefitted from having more time on-campus

to continue to discover more documents relevant to the study. Concerning observations, having

only one week on campus limited the number of observations of classroom instruction that could

be observed. The USAWC Faculty were very accommodating and were able to schedule 5

classroom observations, two in seminar, one two in electives, and one of the BSAP classes.

The validity, and reliability of the instruments was a function of the ability to triangulate

between the basic survey results, interview remarks, classroom observations and, perhaps most

significantly, document research. USAWC Faculty provided 19 internal documents not available

online that were crucial to developing complete and informed the recommendations.

I de-limited the study to the assumed KMO influences, in accordance with the Clark &

Estes Gap Analysis Framework, and focused on a single institution in the Army University.

Having selected the Army War College, I further de-limited this assessment to just one of three

major stakeholders, the faculty of the college itself. While the other stakeholders, the Army and

Joint operational forces provide the demand signal for change, stewardship of the Army's

Strategy Education curriculum is a task assigned to the USAWC. It is reasonable to assume that there may be KMO influences related to the other stakeholders, or influences that do not easily fit in the KMO gap analysis framework that are worthy of attention, and these might be included as possible future research. The recommendations are unique to the Army War College, although other Colleges and Schools in the Army University may consider them as they make their own contributions to improving Strategy Education to better support the AOC by providing capable strategists and strategic planners to 3 and 4-Star HQs, so that Army forces can effectively deter conflict, actively shape security environments during the competition phase, and win wars, as called for in the AOC.

Future Research

Interviews with USAWC Faculty revealed additional possible recommendations that could be explored in future research. A possible 6th recommendation, dubbed, "War College Plus" was not recommended here, because the timeline for execution, resources required, and likely constraints could not be determined from the data collected. As with most of the recommendations, "War College Plus" was suggested by USAWC faculty. The concept is to provide a specialized course immediately following completion of USAWC for graduates heading to 3 and 4-Star HQs where theater military strategy and campaigning are being carried out in the complex world against adversaries employing challenging and difficult combinations of means and methods according to their concepts, doctrines, strategies and forms of warfare. The purpose would be to provide additional education for USAWC Students headed to Combatant Commands (CCMD), Sub-Unified Commands, and Army Service Component Commands (ASCC) to better address these threats in theater military strategy development and campaigning. This proposed recommendation would call for an additional period of instruction

on top of the Resident and Distance programs for graduates going to these and other Joint Force HQs who need mastery level skills with theater military strategies and campaigning. A similar approach was suggested by MG, Ret. Scales (2016) using SAMS as the example, but limited to Senior COLs selected for promotion to BG. The curriculum for "Army War College Plus" would draw from DPC, Advanced Strategic Arts Program (ASAP), Joint Advanced Warfighting School (JAWS), and others across the Army and Joint PME institutions. The intended value to be delivered by this proposal would be to better address OPMEP JPME Phase II Learning Areas 1-4, by adding new content beyond that already covered in USAWC REP and DEP curricula. The stakeholders are the same as for recommendations 1-5 provided in this chapter, USAWC, ASCCs, and CCMDs.

A possible 7th recommendation was also suggested by USAWC faculty, namely widening faculty selection procedures and processes to bring USAWC graduates who have served as practitioners in 3 and 4-Star HQs back to the College, or as O-6 unit Commanders for short tours as teaching faculty. This recommendation, would require policy change for the Army leadership to select former USAWC students who went on to Brigade Command and other significant assignments to return to the USAWC to teach for 1 year. The timeline of this initiative is driven by the requirement to seek HQDA approval to be willing to take senior officers out of their assignment cycle as they make their way to General Officer. A major constraint is availability of personnel to fill such billets, given current manning priorities. This proposal would essentially create new billets that require a Senior Colonel to fill, which would come at the expense of higher priority operational assignments. The fact that there is little depth in the instructor faculty for the core curriculum across the 24 seminars means that it should be feasible to integrate these

senior officers into seminar discussions, teach an elective, and support large hall lectures. In any case, this recommendation warrants further consideration.

In addition to these faculty proposed recommendations to improve strategy education, the recently published 2018-2020 Army Key Strategic Issues List (KSIL) provides many research questions that focus on better understanding and more effectively responding to the complex security environment (Devin and Carlton, 2018). The following table lists the appropriate key strategic issues and relevance to the KMO influences developed for this study (Devin and Carlton, 2018).

Table 21

Relevant USAWC Key Strategic Issues for Future Research

KSIL	Relevance to KMO Influences
KSI 1.6: "Evaluate how the evolving character of war will impact the strategic environment across all domains, and how the Army and the Joint Force should adapt in key doctrine, organization, training, materiel, leadership, personnel, facilities, and policy (DOTMLPF-P) areas. Assess key inhibitors to needed change and possible ways of dealing with them" (p. 3).	K1, K2, 3, K4, O1, O2, O3
KSI 1.8 "Analyze and assess capability gaps and future requirements for Army forces to operate in cross-domain operations short of war—the Competition Period" (p. 3).	K1, K2, K3, K4
KSI 1.9 "Describe how Army forces, as part of a joint, interagency, and multi-national team, could operate and compete with peer competitors to defeat their subversive activities, unconventional warfare, and information warfare short of armed conflict" (p. 3).	K1, K2, K3, K4
KSI 2.5 "Assess whether the changing strategic environment and character of war requires a corresponding change in the way Army leaders think about war" (p. 8).	K1, K2, K3, K4
KSI 2.12 "Assess the degree to which hybrid warfare and constant competition in the information domain to achieve political objectives short of war have changed the Joint Phasing Construct; how should an expeditionary Army adapt?" (p. 9).	K1, K2, K3, K4
KSI 3.a.2 "Evaluate China's military strategy and tactics in the Western Pacific and assess the effectiveness of U.S. Army responses to counter those actions" (p. 13).	K1, K2, K3, K4
KSI 3.a.6 "Analyze the evolution of Chinese "gray zone" approaches and the U.S./allied role in countering them effectively" (p. 13).	K1, K2, K3, K4
KSI 3.a.9 "Assess the Army's effectiveness in accomplishing or supporting Asia-Pacific theater security cooperation plan objectives" (p. 13).	K1, K2, K3, K4
KSI 3.a.11 What role does the Army have in support of Special Operations Forces (SOF) activities within the pre-crisis space to counter Chinese "gray zone" actions? (Carlton, 2018, p. 14).	K1, K2, K3, K4

KSI 3.e.2 "Assess the evolution of Russian "gray zone" approaches and the U.S. Army and allied role in effectively countering them" (p. 20).	K1, K2, K3, K4
KSI 5.1 "Assess the ways in which the U.S. and its military can best avoid turning Great Power Competition into Great Power Conflict" (p. 26).	K1, K2, K3, K4
KSI 5.8 "Assess the impact of "lawfare" on the U.S. Army" (p. 26).	K1, K2, K3, K4
KSI 8.2 "Assess the Army's effectiveness in identifying the traits, education, training, and experience necessary for leaders of military organizations to be effective in the future environment" (p. 34).	K1, K2, K3, K4, O1, O2, O3

The USAWC 2018-2020 KSIL reflects that the changing character of warfare, the complexity of the current and future security environment, and U.S. Army and Joint Force efforts to counter adversary concepts, doctrines, strategies and forms of warfare will continue to require research that to improve USAWC PME contributions to accomplish the Army Operating Concept to win in a complex world (Devin & Carlton, 2018).   The KSI selected in the table above address Russian and Chinese hybrid warfare, gray zone actions, and specific adversary strategies that require effective theater military strategies and campaign plans to counter and deter.

Conclusion

Problem of Practice

The problem of practice addressed by this study is how the Army University is improving the strategy education curriculum of the United States Army War College (USAWC) to support the goal of the Army Operating Concept (AOC), namely to 'win in a complex world.' The Army Operating Concept, "describes how future Army forces will prevent conflict, shape security environments, and win wars while operating as part of our Joint Force and working with multiple inter-organizational and multinational partners" (HQDA, 2015b).   Winning is not limited to being victorious in war, and also applies to the peacetime competition phase where the U.S. is competing for advantage against revisionist powers, primarily the PRC and Russia. Winning, or victory across the continuum of peacetime competition – crisis – conflict or war requires

effective theater military strategies that are designed to counter, block, and deter our most likely adversaries.

The NDS calls for the employment of theater military strategies, "embracing new technology and techniques to counter competitors" (Mattis, 2018, p. 8). Developing these techniques for theater military strategies requires the Army to educate leaders who can think strategically, as well as leaders who are competent strategists and strategic-level planners, who understand the complex security environment. Understanding the complex security environment requires a mastery level appreciation of our adversaries, particularly their concepts, doctrines, strategies, and forms of warfare that are being employed in competition and crisis. General Robert B. Brown, in the foreword to the Army University white paper, "Educating Leaders to Win in a Complex World" has stated that, "preparing leaders for this complexity demands an improved approach to education," a necessary step if they are to learn these skills (Brown, 2015, p. i).

The CJCS directs the CCDRs to, "develop a theater strategy for employing 'normal and routine' military activities in conditions short of conflict to achieve strategic objectives" (VCJCS, 2018, p. 5). However, the current process is criticized as being too cumbersome to counter revisionist powers, operating below the threshold of armed conflict via hybrid warfare (VCJCS, 2018). The U.S. Military must do a better job in conceiving and implementing peacetime theater military strategies (Robinson et al., 2014).

Stakeholder Selection

The main stakeholders contributing to mission accomplishment of the USAWC's field grade strategy education are the USAWC faculty, students, and the military HQs commanded by 3 and 4-star generals and admirals, in which their graduates are employed. The stakeholder

selected for this study is the USAWC faculty, as they are tasked to maintain (and revise when

necessary) a curriculum they are familiar with, to better prepare their graduates to develop

theater strategies that will respond to the complex security environment, and the concepts,

doctrines, strategies, and forms of warfare employed by America's adversaries. The

development of proposed recommendations focused on the USAWC faculty and administrators

as the executing agent.

Framework for the Evaluation Study, Results, and Recommendations

This study employed the Clark and Estes' (2008) gap analysis framework to address the

potential causes of, and solutions for improving strategy education to prepare Army field grade

officers for the adversary forms of warfare the U.S. and its allies are encountering during the

competition phase. Gap analysis is an analytical method that compares an organization's

performance against its stated goals and identifies the causes for the gap in performance. Rueda

(2011) provides the three dimensions into which the study will organize identified gaps, namely

organization, knowledge, and motivation (KMO).   USAWC faculty beliefs and perceptions

about performance gaps were obtained through surveys and interviews to capture these gaps in

their own words, and from their own experiences.

Eleven of 12 assumed influences were validated, or partially validated as possible causes

for performance gaps. These 11 KMO performance gaps allow the USAWC faculty to precisely

target areas for needed improvement regardless of which recommendations may be selected for

implementation. The 5 proposed recommendations include 4 suggested by the faculty themselves

as being feasible and effective solutions that could work at the USAWC. Recommendation #1,

while not directly suggested by the faculty, was validated through surveys and interviews. These

proposed recommendations are complementary and have been presented in a logical (but not

required) sequence for execution. While these recommendations all require resources, the

USAWC can make hard decisions about how to employ its current resources, while

simultaneously approaching HQDA and TRADOC for additional resources to address identified

performance gaps that prevent mission accomplishment. The challenge of managing change

amid fiscal austerity and constrained resources is common for senior leadership across the Army

in today's budgetary environment (Yuengert, 2017). The recommendations provided are broader

than just the USAWC core curriculum and address the USAWC's role as the Army University

lead for strategy education for all PME cohorts and levels, and its other programs and courses

that support the operational force. Other Service War Colleges may see in this report, the

possible KMO performance gaps that hinder their own mission accomplishment for ensuring that

strategy education is relevant to winning in the complex world in peacetime competition, crisis,

and war.

Continuing Relevance of the Problem of Practice

The National Security Strategy and National Defense Strategy both identified China and

Russia as the top priority threats to the United States (NSS, 2017; NDS, 2018), and these nations

are actively conducting hybrid warfare in the Gray Zone conditions of peacetime competition to

achieve military objectives, to include territorial conquest, short of war. A common

characteristic of these nations is their adoption of hybrid warfare in their military strategies and

actions (Hoffman, 2009a, 2018; Milley, 2015; Chambers, 2016; Freier, et al., 2016; Tulak, 2016,

2019; Gady, 2017). The problem of practice introduced in Chapter One, and identified in 2015

in the Army University White Paper and Strategic Plan, remains relevant today.   The Army's

current focus for doctrine development, future operating concept, and strategy is on deterring,

countering, and defeating Chinese and Russian aggression in both competition and conflict

(TRADOC, 2019). Speaking at the 7th Annual Landpower in the Pacific Symposium hosted in

May 2019 by the Association of the United States Army in Honolulu, LTG Wesley, Deputy

Commanding General of Futures and Concepts, explained that the Army must develop strategies

designed to address both of the threats that make up the first and most dangerous tier of

adversaries, China and Russia: "China and Russia are different, clearly. But they are

sufficiently similar that you can build a warfighting concept against [them]" (Wesley, 2019).

ADM Phil Davidson, Commander of U.S. Indo-Pacific Command, speaking at the same

symposium, addressed Army leaders from 28 nations as he highlighted the changing security

environment and the need for Armies to change in response to win in a complex world:

> Indeed, the challenges facing the land forces throughout the theater are forcing an
>
> evolution in doctrine, in posture, in training, and equipment...land forces today must
>
> adapt to equally significant changes in the environment of the 21st Century. And as our
>
> threats evolve, we must be able to deter, respond … dominate and win…in armed conflict
>
> should deterrence fail (Davidson, 2019b).

As the Army University lead for Strategic Education, the USAWC has the mission to improve

the development of theater military strategies and their execution (campaigning) to achieve

national security objectives. This study identified performance gaps that interfere with that

mission, and has recommended feasible solutions that follow from the faculty's own assessment

of performance gaps and appropriate solutions that will result in mission accomplishment, which

is to win in today's complex world.

REFERENCES

Allen, C., & Gerras, S. (2009). Developing creative and critical thinkers, *Military Review, 89*(6), 77-83. Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/a515842.pdf

Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How learning works*. San Francisco, CA: Jossey-Bass.

Anderson, G., Kooij, G., Briggman, K., Hilbert, J., Lay, C. McNaughton, J., (2015), From *Cooperation to Competition - The Future of U.S.-Russian Relations.* U.S. Army War College, Strategic Studies Institute. Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext /u2/a622333.pdf

Anderson, J. (2016). A quiet education revolution worldwide is giving kids the skills to be 21st Century citizens. Quartz, (Dec. 3). Retrieved from https://qz.com/845834/a-stealthy-education-revolution-worldwide-is-giving-kids-the-skills-to-be-21st-century-citizens/

Anwar, Q., Nisar, Q., Khan, N., & Sana, A. (2014). *International Journal of Innovation and Applied Studies, 9*(3). Retrieved from: http://www.ijias.issr-journals.org/

Armed Forces Journal, (AFJ), (2009). Return of the Jedi, AFJ Online, Features. Retrieved from: http://armedforcesjournal.com/return-of-the-jedi/

Army University, (n.d.). Army University Centers and Schools. Retrieved from: https://www.armyuniversity.edu/

Arnold, E. (1993). *Professional military education: Its historical development and future challenges*. Carlisle Barracks, PA: U.S. Army War College.

Arnold, R. (2018). Curtail, cooperate, or compel in the South China Sea? In D. Lai, J. F. Troxell, & F. J. Gellert (Eds.), *Avoiding the trap: U.S. strategy and policy for competing in the Asia-Pacific beyond the rebalance* (pp. 153-188) Carlisle Barracks, PA: U.S. Army War

College Press. Retrieved from

https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1375

Ashraf, (2017). The Pursuit of Hybrid Warfare: Muddling Towards Clarity and Implementation,

U.S. Army War College Strategy Research Project, Carlisle Barracks, PA. Retrieved

from: https://publications.armywarcollege.edu/pubs/3384.pdf

Association of the United States Army (AUSA). (1997). *PME: Preparing military leaders for

the future* (Issue Paper 97-1). Arlington VA: Institute of Land Warfare. Retrieved from

https://www.ausa.org/special-reports

Association of the United States Army (AUSA). (2018a). Two-war planning no longer enough:

Bigger fight would require bigger force, *Army*, *68*(4), 16-18.

Association of the United States Army, (AUSA). (2018b). LANPAC Symposium and

Exposition A Professional Development Forum, Agenda. Retrieved from:

http://ausameetings.org/lanpac2018/wp-content/uploads/sites/37/2018/04/Tentative-

agenda-4.9.2018v15.pdf

Beaulieu, J. (2012). *The education of mid-career Army officers: Building competency through

professional military education*. West Point, NY: United States Military Academy Center

for Teaching Excellence.

Barno & Benshael, (2018). The U.S. Military's Dangerous Embedded Assumptions. War on the

Rocks weblog. Retrieved from: https://warontherocks.com/2018/04/the-u-s-militarys-

dangerous-embedded-assumptions/

Bebber, R. (2016), Winning the Phase 0 War, *Foreign Policy, Best Defense.* Retrieved from

https://foreignpolicy.com/2016/01/07/winning-the-phase-0-war/

Bogdan, R., & Biklen, S. (2007). *An introduction to theories and methods* (5th ed.). Boston, MA: Allyn and Bacon.

Bohane, B. (2017). The U.S. Is Losing the Pacific to China, *The Wall Street Journal.* Retrieved from: https://www.wsj.com/articles/the-u-s-is-losing-the-pacific-to-china-1496853380

Brooke, D. (2012). Stanford psychologist: Achievement goals can be shaped by environment. Retrieved from https://news.stanford.edu/news/2012/ may/shape-achievement-goals-051012.html

Brown, P. (2017, September 11). Japan scrambles to growing incursions of China, Russia warplanes. *Asia Times*. Retrieved from http://www.atimes.com/article/japan-scrambles-growing-incursions-china-russia-warplanes/

Brown, R. (2015). *Educating leaders to win in a complex world*. Retrieved from http://usacac.army.mil/sites/default/files/publications/Army%20University%20White%20 Paper%20(Combined%20Arms%20Center%2025%20Feb%2015).pdf

Bryant, S., & Urben, H. (2017). Reconnecting Athens and Sparta: A review of OPMS XXI at 20 years (Land Warfare Paper No. 114). Arlington, VA: Institute of Land Warfare, Association of the United States.

Canadian Defence Academy. (2011). Generic officer professional military education reference curriculum: Senior staff officer. Kingston, Ontario: Canadian Defence Academy.

Chairman of the Joint Chiefs of Staff (CJCS). (2011a). *Joint Operations* (Joint Publication 3-0). Washington DC: U.S. Department of Defense. Retrieved from https://www.benning .army.mil/mssp/security%20topics/Global%20and%20Regional%20Security/content/pdf/ jp3_0.pdf

Chairman of the Joint Chiefs of Staff (CJCS). (2011b). *Joint Planning* (Joint Publication 5-0).

Washington DC: U.S. Department of Defense. Retrieved from

https://grugq.github.io/resources/ jp5_0.pdf

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) (2012). *Officer professional military

education policy (OPMEP)*. Washington, DC.. Retrieved from

http://usacac.army.mil/sites/ default/files/documents/cace/LREC/2011_

CJCSI_1800.01D_Ch1_OPMEP.pdf

Chairman of the Joint Chiefs of Staff Instruction. (2015a). *Officer professional military

education policy (OPMEP)*. Washington, D. Retrieved from http://www.jcs.

mil/Portals/36/Documents/Doctrine/education/ cjcsi1800_01e.pdf?ver=2017-12-29-

142206-877

Chairman of the Joint Chiefs of Staff Instruction. (2015b). *The national military strategy of the

United States of America, 2015*. Retrieved from http://www.jcs.mil/Portals/36/

Documents/Publications/2015_ National_Military_Strategy.pdf

Chairman of the Joint Chiefs of Staff (CJCS). (2016). *The Joint Operating Environment 2035:

The Joint Force in a Contested and Disordered World*. Retrieved from

https://www.jcs.mil/Doctrine/Joint-Concepts/JOE/

Chairman of the Joint Chiefs of Staff (CJCS).   (2017). *Joint planning* (Joint Publication 5-0).

Washington DC: U.S. Department of Defense.

Chambers, J. (2016). Countering gray-zone hybrid threats. West Point, NY: United States

Military Academy Modern War Institute. Retrieved from https://mwi.usma.edu/wp-

content/uploads/2016/10/Countering-Gray-Zone-Hybrid-Threats.pdf

Chapman, A. (1994). *The Army's Training Revolution 1973-1990: An Overview*, TRADOC

      Historical Study Series, Office of the Command Historian, United States Army Training

      and Doctrine Command, Fort Monroe. VA. Retrieved from: https://history.army.mil/

      html/books/069/69-2-1/cmhPub_69-2-1.pdf

Chellaney, B. (2018). Trump is losing the South China Sea, *Japan Times.* Retrieved from:

      https://japantimes.co.jp/opinion/2018/06/19/commentary/world-commentary/trump-

      losing-south-china-sea#.W2EOFcPwaif

Chilcoat, R. (1995). *Strategic art: The new discipline for 21st century leaders*. Carlisle Barracks,

      PA" U.S. Army War College, Strategic Art Task Force. Retrieved from

      http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB285.pdf

Clark, R. (n.d.). Gap analysis: Organizational culture and context analysis. Retrieved from

      https://s3.amazonaws.com/geedd/educ627/multimedia/organization-culture-and-context-

      analysis/gap_analysis-organizational_culture_and_context_analysis.html

Clark, R. E., & Estes, F. (2008). *Turning research into results: A guide to selecting the right

      performance solutions*. Charlotte, NC: Information Age.

Cloutier, M. (2017). Building Better Colonels: A Strategic Approach to Strategic Leader

      Development. A Strategy Research Project submitted to the USAWC, Carlisle Barracks,

      PA. Retrieved from: https://publications.armywarcollege.edu/pubs/3408.pdf

Cohen, E. (2015). *Global challenges: U.S. national security strategy, and defense organization;

      Testimony before the Senate Armed Services Committee, 114th Congress, 1st Session*.

      Retrieved from https://www.armed-services.senate.gov/hearings/15-10-22-global-

      challenges-us-national-security-strategy-and-defense-organization

Cohen, S. (2018, February 14). If America 'won the Cold War, ' why is there now a 'second

    Cold War' with Russia?" *The Nation*. Retrieved from https://www.thenation.com/article/

    if-america-won-the-cold-war-why-is-there-now-a-second-cold-war-with-russia/

Command and General Staff College Foundation. (2017). News Release: CGSOC Class of 2016

    graduates. Retrieved from: http://www.cgscfoundation.org/cgsoc-class-of-2017-

    graduates/

Connors, S., and Ogren, T., (2008). JLASS: Celebrating 25 Years of Educating Future Leaders,

    Joint Forces Quarterly, 48(1), pp. 7-10. Retrieved from https://apps.dtic.mil/dtic

    /tr/fulltext/u2/a519100.pdf

Cress, J. (2017). New Army War College academic building proposed for 2020-2023 time

    frame, *The Sentinel* (Jun 17). Retrieved from https://cumberlink.com/news/local/

    communities/carlisle/new-army-war-college-academic-building-proposed-for--

    /article_112b5b1d-787a-5aa6-96e5-9fb49039afeb.html

Creswell, J. W. (2014). *Research design* (4th ed). Thousand Oaks, CA: SAGE.

Cucolo, A., & Betros, L. (2014). Strengthening PME at the senior level: The case of the U.S.

    Army War College, *Joint Forces Quarterly, 74*(3), (pp. 50-58).

D'Agostino, D. (2010). Subject hybrid warfare. GAO-10-1036R: Subcommittee on Terrorism,

    Unconventional Threats, and Capabilities the Committee on Armed Services House of

    Representatives. Washington, DC: U.S. Government Printing Office.

Dana, M. (2019). Future War: Not Back to the Future. War on the Rocks. Retrieved from:

    https://warontherocks.com/2019/03/future-war-not-back-to-the-future/

Davidson, Philip. (2019a). *Statement of Admiral Philip S. Davidson, U.S. Navy Commander,*

    U.S. Indo-Pacific Command Before the Senate Armed Services Committee on U.S. Indo-

Pacific Command Posture 12 February 2019. Retrieved from: https://www.armed-

services.senate.gov/download/davidson_02-12-19pdf

Davidson, Philip. (2019b). Davidson speaks at AUSA LANPAC. Retrieved from:

https://www.dvidshub.net/video/682827/davidson-speaks-ausa-lanpac

Davis, G., Graves, T., & Prigge, C. (2013). The strategic planning problem, *Military Review,*

93(6), (pp. 10–17). Retrieved from http://cgsc.contentdm.oclc.org/cdm/

ref/collection/p124201 coll1/id/1206

Davitch, J., & Folker, R. (2017). Operationalizing Air Force critical thinking, *Air and Space*

Power Journal, 31(4), 62-67.

Dembo, M., & Seli, H. (2016). *Motivation and learning strategies for college success: A focus*

on self-regulated learning. 5th edition. New York: Taylor & Francis.

Dempsey, M. E. (2012). Joint education white paper. Washington DC: Joint Chiefs of Staff.

Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/cjcs_wp_

education.pdf?ver=2017-12-28-162044-527

Deni, J., (2015). *Current Russia Military Affairs: Russian Strategic Objectives and Planning*

Strategic Studies Institute (SSI), Army War College, Carlisle Barracks PA.

Denler, H., Wolters, C., & Benzon, M. (2010). *Social cognitive theory*. Retrieved from

http://www.education.com/print/social-cognitive-theory/

Devin, L. and Carlton, C. (2018). U.*S. Army War College Key Strategic Issues List 2018-2020*,

U.S. Army War College Press. Retrieved from: https://ssi.armywarcollege

.edu/pubs/display.cfm?pubID=1393

Dominguez, G. (2017). U.S. military advantage over China and Russia is being eroded, warns

JCS Chairman. *Jane's Defence Weekly, 54*(48), 5.

Dorff, R., (2010). The Debate About Teaching Strategy, Chapter 1, in *Teaching Strategy: Challenge And Response,* (Marcella G., ed), Strategic Studies Institute, Army War College, Carlisle Barracks, PA. Retrieved from https://ssi.armywarcollege.edu /pubs/download.cfm?q=976

Downing, W. (1994). "The Role of Special Operations in U.S. Strategy," *The Commonwealth, 88* (1).

Duke, N. K. & Martin, N. M. (2011). Ten things every literacy educator should know about research. *The Reading Teacher*, *65*(1), 9-22.

Dunford, J. (2016). From the Chairman: Our Force and Our Fight, *Joint Forces Quarterly, 80*(1). Retrieved from: https://ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-80/jfq-80_2-3_Dunford.pdf

Dunford, J. (2018). The Character of War and Strategic Landscape Have Changed, *Joint Forces Quarterly, 89*(2). Retrieved from: https://ndupress.ndu.edu/Portals/68/Documents/ jfq/jfq-89/jfq-89_2-3_Dunford.pdf

Eccles J. & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology, 53*, 109–132.

Eccles, J. (2006). *Expectancy value motivational theory*. Retrieved from http://www.education. com/reference/article/expectancy-value-motivational-theory/

Echevarria, A. (2016). *Operating in The Gray Zone: An Alternative Paradigm for U.S. Military Strategy.* U.S. Army War College Press, Carlisle Barracks PA. Retrieved from: https://ssi.armywarcollege.edu/pdffiles/PUB1318.pdf

Elder, R. (2016, November). *The integrated use of EW, cyber, and IO by gray zone actors*. (PowerPoint) Presentation to the 5th Annual Pacific Information Operations Symposium, Armed Forces Recreation Center, Fort DeRussy, Honolulu Hawaii.

Emilio, G. (2000). *Promoting critical thinking in professional military education.* Maxwell Air Force Base, AL: Air Command and Staff College. Retrieved from http://www.au.af. mil/ au/awc/awcgate/acsc/00-058.pdf

Engstrom, J. (2018). *Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare*. Santa Monica, CA: RAND Corporation, 2018. Retrieved from: https://www.rand.org/pubs/research _reports/RR1708.html.

Farwelll, J. (2019). Adversarial Tactics to Undercut U.S. Interests in New Generation Warfare 2019. Strategic Multilayer Assessment, Future of Global Competition and Conflict. Retrieved from: https://nsiteam.com/adversarial-tactics-to-undercut-us-interests-in-new-generation-warfare-2019/

Fastabend, D., & Simpson, R. (2004). Adapt or die: The imperative for a culture of innovation in the United States Army. *Army Magazine*, *54*(2), 15–22. Retrieved from http://209.235.252.76/publications/armymagazine/archive/2004/2/Documents/ Fastabend_0204.pdf

Ferguson, K. (2017). Army learning model not ready to graduate. *Army, 67*(8), 9-11. Retrieved from https://www.ausa.org/issues/army-magazine-vol-67-no-8-august-2017

Finn, R. & Moore, D. (2018). A new U.S. Indo-Asia-Pacific security strategy. D. Lai, J. F. Troxell, & F. J. Gellert (Eds.), *Avoiding the trap: U.S. strategy and policy for competing*

in the Asia-Pacific beyond the rebalance. Carlisle Barracks, PA: U.S. Army War College Press. Retrieved from https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1375

Foundation for Critical Thinking. (2018). Our concept and definition of critical thinking. Retrieved from http://www.criticalthinking.org/pages/our-conception-of-critical-thinking/411

Forsythe, G. (1992). The Preparation of Strategic Leaders, *Parameters,* Journal of the Army War College. Carlisle Barracks, PA. Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext/u2/a528179.pdf

Freedberg, S., (2017). Joint Staff Must Boost Global Coordination; No New Powers Needed: J5, Breaking Defense. Retrieved from: https://breakingdefense.com/2017/04/joint-staff-must-step-up-global-coordination-no-new-powers-needed-j-5/

Freier, N., Burnett, C., Cain, W., Compton, C. Hankard, S., Hume, R., Kramlich, G., Wille, D. (2016). *Outplayed: Regaining strategic initiative in the gray zone*. Carlisle Barracks, PA: Army War College Press. Retrieved from https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1358

Gady, F., (2017). Military stalemate: How North Korea could win a war with the U.S.: It's time to reexamine the assertion that North Korea's defeat is preordained, *The Diplomat,* (October, 10). Retrieved from: https://thediplomat.com/2017/10/military-stalemate-how-north-korea-could-win-a-war-with-the-us/

Gallimore, R., & Goldenberg, C. (2001). Analyzing cultural models and settings to connect minority achievement and school improvement research. *Educational Psychologist, 31*(1), 45–56.

Galvin, J., (1989).   What's the Matter with Being a Strategist? *Parameters*, (Mar.), Journal of

the Army War College, Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext/u2/ a528295.pdf

Galvin, T. (2018). *Leading Change in Military Organizations Primer for Senior Leaders*, (1st Ed.). Carlisle PA: School for Strategic Landpower, Army War College Press. Retrieved from: https://publications.armywarcollege.edu/publication-detail.cfm? publicationID=3556

Galvin T., & Watson, D. (2019). *Strategic Leadership Primer for Senior Leaders*, 4th ed. Carlisle Barracks, PA: U.S. Army War College Press. Retrieved from: https://ssi.army warcollege.edu/PDFfiles/PCorner/SL-Primer_2019.pdf

Garreis, S. (2017). Hybrid war and hybrid threats, *Percondoriam, 9*(4). Retrieved from http://perconcordiam.com/ hybrid- war-and-hybrid-threats/

Geise, N. (2010). *National defense, security, and strategy*. New York, NY: Nova Science.

Gerras, S., Wong, L., & Allen, C. (2008). *Organizational culture: Applying a hybrid model to the U.S. Army*. Carlisle Barracks, PA: U.S. Army War College,.

Glasser, S. (2017, December 22). Trump, Putin and the New Cold War: The conflict is back: but this time, only one side is fighting, *Politico Magazine*. Retrieved from https://www. politico.com/magazine/story/2017/12/22/donald-trump-vladimir-putin-cold-war-216157

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th ed.) Boston, MA: Pearson.

Godfrin. P. (2011). *Preparing field grade officers for joint staff assignments*, A monograph submitted to the School of Advanced Military Studies. Fort Leavenworth KS: U.S. Army Command and General Staff College. Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext/u2/a545826.pdf

Goldich, R. (2012, May, 3). Sure, introduce more rigor into the professional military education

     system — but not by imitating civilian schools. *Foreign Policy.* Retrieved from

     http://foreignpolicy.com/2012/05/03/sure-introduce-more-rigor-into-the-professional-

     military-education-system-but-not-by-imitating-civilian-schools/

Goodyear C., Greata B., Payment T., & Wetterauer M., III. (2017, June 2). Countering threat

     networks: A standard lines of effort model. *Small Wars Journal*. Retrieved from

     http://smallwarsjournal.com/jrnl/art/countering-threat-networks-a-standard-lines-of-

     effort-model

Goure D. (2013). *The measure of a superpower: A two major regional contingency military for*

     the 21st century. Retrieved from https://www.centerforsecuritypolicy.org/2013/02/14/the-

     measure-of-a-superpower-a-two-major-regional-contingency-military-for-the-21st-

     century/

Gray, C. (2009). *Schools for Strategy: Teaching Strategy for 21*[st] *Century Conflict.* Carlisle

     Barracks, PA: Strategic Studies Institute, U.S. Army War College. Retrieved from:

     https://ssi.armywarcollege.edu/pdffiles/PUB497.pdf

Gray, R. (2010). The study of strategy: A civilian academic perspective. In G. Marcella (Ed.).

     Teaching strategy: Challenge and response (pp. 47–77). Carlisle Barracks, PA: Strategic

     Studies Institute.

Griffiths, J., Cohen, Z., & Berlinger, J. (2017, September 15). North Korea launches missile over

     Japan. *Cable Network News*. Retrieved from https://www.cnn.com/2017/09/14/asia/

     north-korea-missile-launch/index.html

Gruszecki, L. (2011). U.S. Army and U.S. Navy staff officer distance education programs,

     Distance Learning Journal, 8 (11), 17–23. North Miami Beach, FL: Information Age.

Guedes da Costa, T. (2010). The teaching of strategy: Lykke's balance, Schelling's exploitation, and a community of practice in strategic thinking. G. Marcella (Ed.), *Teaching strategy: Challenge and response* (pp. 203-240). Carlisle Barracks, PA: Strategic Studies Institute.

Guild, J. (2017). How the U.S. Is Losing to China in Southeast Asia, *The Diplomat*. Retrieved from: https://thediplomat.com/2017/10/how-the-us-is-losing-to-china-in-southeast-asia/?

Guillot, M. (2004). Critical thinking for the military professional. *Air & Space Power Chronicles*. Retrieved from https://www.dau.mil/cop/pm/DAU%20 Sponsored%20Documents/Critical%20Thinking%20For%20The%20Military%20Profess ional.htm

Halvorson, A. (2010). *Understanding the military: The institution, the culture, and the people*. Rockville MD: Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/sites/default/files/military_ white_paper_final.pdf

Harper, R., (2017). Strategic joint wargame challenges future leaders ability to think Multidimensional. *Maxwell Air Force Base News*. Retrieved from: https://www. maxwell.af.mil/News/Commentaries/Display/Article/1134598/strategic-joint-wargame-challenges-future-leaders-ability-to-think-multidimensi/

Harris, H. (2018a). *Statement of Admiral Harry B. Harris Jr., U.S. Navy Commander, U.S. Pacific Command before the House Armed Services Committee on U.S. Pacific Command Posture*. Retrieved from https://docs.house.gov/meetings/AS/ AS00/20180214/106847/HHRG-115-AS00-Wstate-HarrisJrH-20180214.pdf

Harris, H. (2018b). *Stenographic transcript before the Committee on Armed Services, United States Senate: Hearing to receive testimony on United States Pacific Command in review of the defense authorization request for fiscal year 201 and future years defense program.*

Retrieved from https://www.armed-services.senate.gov/imo/media/doc/19-09_02-12-19.pdf

Haskins, C. (2009). A good answer to an obsolete question: The Army's culture and why it needs to change. Retrieved from http://www.benning.army.mil/mcoe/usmc/content/pdf/A%20good%20answer%20to%20an%20obsolete %20question.pdf

Headquarters, Department of the Army. (1954). *A review of the Army school system*. Washington, DC: Office of The Assistant Chief of Staff G-3.

Headquarters, Department of the Army. (1986). *Army Regulation 310-25 (AR 310-25), dictionary of United States Army terms*. Washington, DC: U.S. Army Heritage and Education Center. Retrieved from http://usahec.contentdm.oclc.org/cdm/ref/collection/p16635coll11/id/1169

Headquarters, Department of the Army. (2006). *The Army strategic planning guidance 2006-2023*. Retrieved from https://www.hsdl.org/?view&did=443218

Headquarters, Department of the Army. (2011). *The Army strategic planning guidance 2011*. Retrieved from http://indianstrategicknowledgeonline.com/web/219190.pdf

Headquarters, Department of the Army. (2012a). *Army doctrine reference publication 6-22, Leadership*. Washington DC. Retrieved from http://data.cape.army.mil/web/repository/doctrine/adrp6-22.pdf

Headquarters, Department of the Army. (2012b). *Army doctrine publication 1, The Army*. Washington DC Retrieved from https://www.army.mil/e2/c/ downloads/303969.pdf

Headquarters, Department of the Army. (2014a). *The Army strategic planning guidance 2014*. Retrieved from http://www.g8.army.mil/pdf/Army_ Strategic_Planning _Guidance2014.pdf

Headquarters, Department of the Army. (2014b). *Army regulation 350-1 (AR 350-1), Army Training and leader development.* Washington DC. Retrieved from http://www.dami.army.pentagon.mil/g2Docs/Foundry/r350_1.pdf

Headquarters, Department of the Army. (2014c). *Army regulation 600-3 (AR 600-3) Commissioned Officer professional development and career management*. Washington DC. Retrieved from https://www.army.mil/e2/c/downloads/376665.pdf

Headquarters, Department of the Army. (2015a). *The Army vision: Strategic advantage in a complex world*. Washington DC. Retrieved from https://www.army.mil/e2/rv5_downloads/info/ references/the_army_vision.pdf

Headquarters, Department of the Army. (2015b). *The Army human dimension strategy.* Retrieved from: https://usacac.army.mil/sites/default/files/ publications/20150524_Human_Dimension_Strategy_vr_Signature_WM_1.pdf

Headquarters, Department of the Army. (2016a). The Army University proclamation. Retrieved from http://armyu.army.mil/sites/default/files/documents/ArmyU%20Proclamation.pdf

Headquarters, Department of the Army. (2016b). General order 2016-10 (GO 2016-10), Establishment of the Army University. Washington DC. Retrieved from https://armypubs. army.mil/ProductMaps/PubForm/Details.aspx?PUBNO=DAGO+2016-10

Headquarters, Department of the Army. (2016c). *Infantry platoon and squad*, Army Training Publication 3-21.8. Washington, DC: The Pentagon. Retrieved from https://armypubs.army.mil/epubs/ DR_pubs/DR_a/pdf/web/ARN13842_ATP%203-21x8%20FINAL%20WEB%20INCL% 20C1.pdf

Headquarters, Department of the Army. (2017a). *Army Regulation 600-100, Army Profession and Leadership Policy,* Washington DC. Retrieved from http://data.cape.army.mil/ web/repository/doctrine/ar600-100.pdf

Headquarters, Department of the Army. (2017b). *Officer Professional Development and Career Management*, Department of the Army Pamphlet 600-3 9 (DA PAM 600-3).

Hibner, D. (2016). The joint master operational planner. Norfolk VA: Joint Forces Staff College. Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/1010553.pdf

Hilbert, *From Cooperation to Competition - The Future of U.S.-Russian Relations* House Permanent Select Committee (HPSC) on Intelligence, (2018). *Report on Russian active measures* (Unclassified Preface).

Hirabayashi, K., (n.d.). Online lecture. How does self-efficacy influence motivation? How do we influence and assess self-efficacy? University of Southern California Los Angeles, CA.

Hoffman, F. (2009a). Hybrid warfare and challenges. *Joint Force Quarterly, 52,* 34–39. Retrieved from: https://ndupress.ndu.edu/portals/68/Documents/jfq/jfq-52.pdf

Hoffman, F. (2009b). Hybrid vs. compound war, *Armed Forces Journal,* (Oct). Retrieved from: http://armedforcesjournal.com/hybrid-vs-compound-war/

Hoffman, F. (2018).   Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges, *Prism,* Journal of Complex Operations, National Defense University Press *7*(4), 30–47. Retrieved from: https://cco.ndu.edu/Journal/PRISM-7-4/

House Armed Services Committee (2009a). *Thinkers and practitioners: Do senior professional military education schools produce strategists?* Retrieved from https://www.gpo.gov /fdsys/pkg/ CHRG-111hhrg51766/html/CHRG-111hhrg51766.htm

House Armed Services Committee. (2009b). *Raising thinking from the tactical to the operational level: JPME I and JPME II at the services' and joint command and staff colleges.* Retrieved from https://www.gpo.gov/fdsys/pkg/CHRG-111hhrg52356/html/CHRG-111hhrg52356.htm

House Armed Services Committee. (2009c). *Another crossroads? Professional military education twenty years after the Goldwater-Nichols Act and the Skelton panel.* Retrieved from http://www.au.af.mil/au/awc/awcgate/congress/hasc_pme_report_6may2010.pdf

House Armed Services Committee. (2009d). *Beyond service core competency: Are our junior officers prepared for today's security environment? Hearing before the Oversight and Investigations Subcommittee of the Committee on Armed Services, House of Representatives, 111th Congress.* Retrieved from https://www.gpo.gov/fdsys/pkg/CHRG-111hhrg53209/html/CHRG-111hhrg53209.htm

House Armed Services Committee. (2009e). *Investing in our military leaders: The role of professional military education in officer development.* Retrieved from https://www.gpo.gov/fdsys /pkg/CHRG-111hhrg53165/pdf/CHRG-111hhrg53165.pdf

House Armed Services Committee. (2009f). *Charting the course for effective professional military education: Hearing before the Oversight and Investigations Subcommittee of the Committee on Armed Services, House of Representatives, 111th Congress.* Retrieved from https://www.gpo.gov/fdsys/pkg/CHRG-111hhrg53210/html/CHRG-111hhrg53210.htm

House Armed Services Committee. (2010). *Continued engagement: Department of Defense responses to the House Armed Services Committee April 2010 report on professional military education: Hearing before the Subcommittee on Oversight and Investigations of*

the Committee on Armed Services, House of Representatives, 111th Congress. Retrieved

from https://www.gpo.gov/fdsys/pkg/CHRG-111hhrg63159/html/CHRG-

111hhrg63159.htm

Iasiello, Emilio., (2017). Russia's Improved Information Operations: From Georgia to Crimea,

Parameters, 47(2). Army University Press, Carlisle Barracks, PA.

Johnson, D. (2003). *Preparing potential senior Army leaders for the future an assessment of*

*leader development efforts in the post-Cold War era. S*anta Monica, CA: RAND.

Johnson, R. B., & Christensen, L. B. (2015). *Educational research: Quantitative, qualitative,*

and mixed approaches (5th ed.). Thousand Oaks, CA: SAGE.

Johnson, R. (2017). *The Changing Character of War: does U.S. Policy and Strategy Align to the*

Challenges Taking Place? 28th Annual USAWC Strategy Conference. Retrieved from:

http://www.ccw.ox.ac.uk/news/2017/5/10/28th-annual-usawc-strategy-conference-2017

Johnson-Freese, J. (2012). The reform of military education: Twenty-five years later. *Orbis*,

56(1), 135–153.

Johnson-Freese, J. (2013, March 19). Educating America's military, Video. Retrieved from

https://www.c-span.org/video/?311742-1/educating-americas-military&start=1355

Joint Forces Staff College (JFSC), (n.d.) Joint and Combined Warfighting School (JCWS)

Course Overview.   Norfolk VA. Retrieved from: https://jfsc.ndu.edu/Academics/Joint-

and-Combined-Warfighting-School-JCWS/Course-Description/

Joint Forces Staff College (JFSC), (2000). *The Joint Staff Officer's Guide*, JFSC Publication 1.

Norfolk VA. Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext/u2/a403118.pdf

Joint Staff J2, (JSJ2), (2018). *Globally Integrated Operations.* PowerPoint presentation.

    Retrieved from: https://www.jcs.mil/Portals/36/Documents/Doctrine/MECC2018/

    globally_integrated_ops.pdf?ver=2018-10-30-085737-770

Joint Staff J7 Deployable Training Division, (JSJ7), (2012). *Joint Officer Handbook,* 3rd Ed.,

    The Pentagon, Washington D.C. Retrieved from: https://www.pacom.mil/Portals/55/

    Documents/pdf/newcomers-Joint-Staff-Officer-Handbook-2012.pdf

Joint Staff J7 Deployable Training Division, (JSJ7), (2018). *Joint Officer Handbook,* 4th Ed.,

    Washington DC: The Pentagon. Retrieved from https://wss.apan.org/public/jom_jqs/

    Shared%20Documents/Joint%20Staff%20Officer%20Handbook.pdf

Jones, R. (2002). Introduction to Rigor/Relevance Framework, Chapter 1 of the *Rigor and*

    Relevance Handbook. International Center for Leadership in Education, Rexford, NY.

    Retrieved from: http://www.calhounminks.com/uploads/8/2/8/6/8286506/rigor_and_

    relevance_introduction.pdf

Jordan, K. (2004). The Yin and Yang of Junior Officer Learning: The Historical Development

    of the Army's Institutional Education Program for Captains. The Institute of Land

    Warfare, Association of the United States Army, Arlington VA. Retrieved from:

    https://www.ausa.org/sites/default/files/LWP-49-The-Yin-and-Yang-of-Junior-Officer-

    Learning-The-Historical-Development-of-the-Armys-Institutional-Education-Program-

    for-Captains.pdf

Keister, R., Slanger, R., Bain, M., and Pavlik, D. (2014). Joint PME, Closing the Gap for Junior

    Officers, *Joint Forces Quarterly, 74*(3). Retrieved from: https://ndupress.ndu.edu/

    Portals/68/Documents/jfq/jfq-74/jfq-74_65-71_Keister-et-al.pdf

Kelley, K. P., & Johnson-Freese, J. (2014). Getting to the goal in professional military education. *Orbis, 58*(1), 119–131. doi:10.1016/j.orbis.2013.11.009

Kelly, J., (2008). Resistance to Organizational Cultural Change in the Military— A JFO Case Study, U.S. Army War College Strategy Research Project. Carlisle Barracks, PA. Retrieved from: https://apps.dtic.mil/dtic/tr/fulltext/u2/a479711.pdf

Kelly, C., (n.d.) T*he joint operating environment (JOE) 2035 & the future of globally integrated logistics*. Washington, DC: Fort McNair.

Kem J., & Hotaling, A., (2017). What is Army University Supposed to Do and How Is It Going so Far?. *Journal of Military Learning*, (Apr.), 5–12. Retrieved from https://www.armyupress.army.mil/Portals/7/journal-of-military-learning/Archives/jml-april-2017-Kem-What-is-army-university.pdf

Kern, J. (2017). *The Army University learning strategy*. Fort Leavenworth, KS: Army University, U.S. Army Combined Arms Center. Retrieved from https://usacac. army.mil/node/1722

Key, T. (2018). *U.S. Army War College research plan: Academic year 2018*. Carlisle Barracks PA: Army War College Press. Retrieved from ttps://ssi.armywarcollege.edu/pdffiles/PUB 1377.pdf

Killian, S. (2017) Hattie effect size 2016 update. Retrieved from http://www.evidencebased teaching.org.au/hattie-effect-size-2016-update/

Kim, J. (2010, April 21). North Korea torpedoed South's navy ship: Report. *Reuters*. Retrieved from https://www.reuters.com/article/us-korea-ship/north-korea-torpedoed-souths-navy-ship-report-idUSTRE63L08W20100422

Kim, J., & Jae-won, L. (2010, November 22). North Korea shells South in fiercest attack in

decades. *Reuters*. Retrieved from https://www.reuters.com/article/us-korea-north-

artillery/north-korea-shells-south-in-fiercest-attack-in-decades-idUSTRE6

AM0YS20101123

Kimmons, S., (2018). Army updates future operating concept, *Army News Service*. Retrieved

from: https://www.tradoc.army.mil/Publications-and-Resources/Article-

Display/Article/1706332/army-updates-future-operating-concept/

King, J. W. (2010). *The Army's strategic failure to train its staffs on design*, Strategy Research

Project. Carlisle Barracks PA: Army War College.

King, J. (2018). Large-Scale Combat Operations: How the Army Can Get its Groove Back. The

Modern War Institute. Retrieved from: https://mwi.usma.edu/large-scale-combat-

operations-army-can-get-groove-back/

King, S., and Boyklin, D. (2019). Distinctly Different Doctrine, *Army Magazine, 69* (3), 18–21.

Retrieved from: https://www.ausa.org/articles/distinctly-different-doctrine-why-multi-

domain-operations-isn%E2%80%99t-airland-battle-20

Kirkpatrick, D. (2006). Seven Keys to Unlock the Four Levels of Evaluation, *Performance

Improvement 45*(7), 5–8. Retrieved from: https://onlinelibrary.wiley.com

/doi/pdf/10.1002/pfi.2006.4930450702

Kirkpatrick, D. & Kirkpatrick, J. (2006). *Evaluating Training Programs: The Four Levels,* (3rd

Ed). San Francisco, CA: Brett Koehler Publishers, Inc.

Kirkpatrick, J., & Kirkpatrick, W. (2019). An Introduction to the new world Kirkpatrick model.

Retrieved from http://www.kirkpatrickpartners.com/Portals/0/Resources/White

Papers/Introduction to theKirkpatrick New World Model.pdf

Krathwohl, D. (2002). A revision of Bloom's taxonomy: An overview. *Theory Into Practice, 41*(4), 212–218. doi:10.1207/s15430421tip4104_2

Kreisher, O. (2016). Milley: Future war between nation states 'is almost guaranteed.' Retrieved from: https://www.ausa.org/articles/ milley-future-war-between-nation-states-almost-guaranteed

Kreisher, O. (2019). CNO warns forum of challenges of 'great power competition' *Seapower Magazine*. Retrieved from https://seapowermagazine.org/cno-warns-of-great-power-competition/

Kroesen, F. (2017). It's time to restore the Army School System, *Army, 67*(8), 7–9. Retrieved from https://www.ausa.org/issues/army-magazine-vol-67-no-8-august-2017

Kroesen, F. (2018). Another view of Army officer education. *Army, 68*(1), 7. Retrieved from https://www.ausa.org/issues/army-magazine-vol-68-no-1-january-2018

Kubiak J. (2017, Mar. 16). An Army program that helps officers become critical strategic Thinkers. *Foreign Policy*. Retrieved from http://foreignpolicy.com/2017/03/16/an-army-program-that-helps-officers-become-critical-strategic-thinkers/

Kuehn, J. (2016). I liked Ike. Whence comes another? Why PME needs a Congressional advocate. *Joint Forces Quarterly*, *83,* 40–43. Retrieved from http://ndupress.ndu.edu/Portals/68/ Documents/jfq/jfq-83/jfq-83_40-43_Kuehn.pdf?ver=2016-10-19-102201-660

Lacquement, R. (2016). *Managing change and Army War College curriculum reform in challenging times*. Carlisle Barracks, PA: Army War College School of Strategic Landpower.

Lai, D., Troxell, J., & Gellert, F. (Eds.). (2018). *Avoiding the trap: U.S. strategy and policy for competing in the Asia-Pacific beyond the rebalance*. Carlisle Barracks, PA: U.S. Army War College Press. Retrieved from https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1375

Lange, K. (2018). National Defense Strategy: Lethality, Department of Defense, Public Affairs. Retrieved from: https://www.defense.gov/explore/story/Article/1656335/ national-defense-strategy-lethality/

Lind, M. (2018a, April 15), America vs. Russia and China: Welcome to Cold War II, *The National Interest* (n.p.). Retrieved from http://nationalinterest.org/issue/may-june-2018

Lind, M. (2018b). Cold War II. *National Review*, *LXX*(10), 24–29.

Livingston, I. (2017, Nov. 21). Experts examine the current state of U.S. military readiness. Brookings Institution. Washington, DC. Retrieved from https://www.brookings.edu/blog /order-from-chaos/2017/11/21/ experts-examine-the-current-state-of-u-s-military-readiness/

Lo, Shun-Te. (Ed). (1991). *Sun Tzu on the art of war*. Taipei, Republic of China: ROC Ministry of Defense.

Marcella G., & Fought, S. (2010). *Teaching strategy: Challenge and response*. Carlisle Barracks, PA: U.S. Army War College.

Marzano, R. (2010). *An observational protocol based on "the art and science of teaching"* Englewood, CO: Marzano Research Laboratory. Retrieved from https://www.ndcel.org/ cms /lib/ND07001211/Centricity/Domain/173/1MarzanosObservational Protocol_Updated_Feb2010.pdf

Mattis, J. (2018). *Summary of the 2018 national defense strategy of the United States of America: Sharpening the American military's competitive edge*. Washington, DC: U.S. Department of Defense. Retrieved from https://www.defense.gov/Portals/1/ Documents/pubs/2018-National-Defense-Strategy-Summary.pdf

Mattis, J. and Hoffman, F. (2005). Future Warfare: The Rise of Hybrid Wars, *Proceedings, 131* (11) U.S. Naval Institute. Retrieved from: https://www.usni.org/ magazines/proceedings/2005/november

Maxwell, D. (2012). Thoughts on professional military education: After 9-11, Iraq, and Afghanistan in the era of fiscal austerity. *Small Wars Journal.* Retrieved from http://smallwarsjournal.com /jrnl/art/thoughts-on-professional-military-education-after-9-11-iraq-and-afghanistan-in-the-era-of-f

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: SAGE.

Mayer, R. E. (2011). *Applying the science of learning*. Boston, MA: Pearson Education

Mazarr, M. (2015). *Mastering the gray zone: Understanding a changing era of conflict.* Carlisle Barracks. PA: U.S. Army War College Press. Retrieved from https://ssi.armywarcollege. edu/pubs/ display.cfm?pubID=1303

McCulloh, T., & Johnson, R. (2013). *Hybrid warfare* (JSOU Report 13-4). MacDill Air Force Base, FL: JSOU Press.

McDonald, S., Jones, B., & Frazee, J. (2012). Phase zero: How China exploits it, why the United States does not, *Naval War College Review, 65*(3), 123–136.

McConville, J., and Wada, D. (2016). *Army Talent Management Strategy, Force 2025 and Beyond,* Headquarters, Department of the Army, the Pentagon. Retrieved from:

https://talent.army.mil/wp-content/uploads/pdf_uploads/PUBLICATIONS/Army%20

Talent%20Management%20Strategy%2C%20Force%202025%20and%20Beyond.pdf?bo

xtype=pdf&g=false&s=false&s2=false&r=wide

Meehan, J. (1986). The Operational Trilogy, *Parameters,* Journal of the U.S. Army War College,

16 (3), 9–18. Carlisle Barracks, PA, Retrieved from: https//ssi.armywarcollege.edu/

pubs/parameters/articles/1986/1986%20Meehan.pdf

Mehta, A. (2019). The Pentagon's National Military Strategy is done, and it's unclear if the

public will ever see it, *Defense News.* (Feb. 13). Retrieved from: https://www.defense

news.com/pentagon/2019/02/13/the-pentagons-national-military-strategy-is-done-and-its-

unclear-if-the-public-will-ever-see-it/

Meinhart, R. (2018). Insights for a Committed Learning Environment, *Journal of Military

Learning, 2*(1), 76–93, Army University Press, Carlisle Barracks PA. Retrieved from

https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-

Military-Learning-Archives/April-2018-Edition/Learning-Environment/

Menser, D. (2016). Did the U.S. lose China again? *Army War College Review, 3*(1), 36–40.

Retrieved from http://publications.armywarcollege.edu/pubs/3353.pdf

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and

implementation* (4th ed.). San Francisco, CA: Jossey-Bass.

Milley, M., (2015). Winning Matters, Especially in A Complex World, (Oct. 5). Association of

the United States Army. Retrieved from https://www.ausa.org/articles/winning-matters-

especially-complex-world

Mittelstadt, J. (2018, June 20). Too much war, not enough college. *WAR ROOM*. Retrieved from

https://warroom.armywarcollege.edu/articles/too-much-war-not-enough-college/

Moore, C. (2009). What's the Matter with Being a Strategist (Now)? *Parameters, 9, 5–19.*

> Journal of the U.S. Army War College, Carlisle Barracks, PA. Retrieved from

> https://ssi.armywarcollege.edu/pubs/Parameters/articles/09winter/moore.pdf

Murray, N. (2013a). Officer Education: What Lessons Does the French Defeat in 1871 Have for

> the US Army Today?. *Small Wars Journal*. Retrieved from

> https://smallwarsjournal.com/index.php/jrnl/art/officer-education-what-lessons-does-the-

> french-defeat-in-1871-have-for-the-us-army-today

Murray, N. (2013b, Sep. 10). Guess what? CGSC is even more broken than we thought and it is

> getting worse [weblog]. Retrieved from http://foreignpolicy.com/2013/09/10/guess-what-

> cgsc-is-even-more-broken-than-we-thought-and-it-is-getting-worse/

Murray, N. (2014). The Role of professional military education in mission command. *JFQ: Joint*

> *Force Quarterly*, *72*(10), 10–13. Retrieved from https://ndupress.ndu.edu/

> Portals/68/Documents/jfq/jfq-72/jfq-72_10-13_Murray.pdf?ver=2014-03-13-152404-877

Murray, N. (2016). Rigor in joint professional military education, *war on the rocks*. Retrieved

> from https://warontherocks.com/2016/02/rigor-in-joint-professional-military-education/

Murray, W. (1986). Grading the war colleges, *The National Interest, 6*, 12–19.

Murray, W. (1999) Does military culture matter? *Orbis*. *45* (l), 27–42.

Myers, M. (2017). "The Army chief of staff wants you to get a head start on preparing for the

> next big war" *The Army Times*. Retrieved from: https://www.armytimes.com/news/your-

> army/2017/08/09/the-army-chief-of-staff-wants-you-to-get-a-head-start-on-preparing-for-

> the-next-big-war/

Myers, M. (2018). "Chief: The Army has to start preparing for 'the big war,'" *Army Times.*

Retrieved from: https://www.armytimes.com/news/your-army/2018/01/17/chief-the-army-has-to-start-preparing-for-the-big-war/

National Academies of Science, Engineering and Medicine. (2018). *How People Learn II Learners, Contexts, and Cultures,* National Academies Press. Retrieved from: http://nap.edu/24783

O'Donnell, M. (2017). A Shiny New Way to Teach Top Brass: Education Office at War College Focuses on Generals, *Army Magazine*, *67*(6), 43–45. Retrieved from https://cdn. coverstand.com/22217/408380/9d791b5297af60faff407ac048c797f18a26d860.1.pdf

Odierno, R., and McHugh, J. (2015). *Army Human Dimension Strategy*, Headquarters, Department of the Army. Washington DC: The Pentagon. Retrieved from https://usacac.army.mil/sites/default/files/publications/20150524_Human_Dimension_Strategy_vr_Signature_WM_1.pdf

Oskarsson, K. The effectiveness of DIMEFIL instruments of power in the gray zone, *Open Publications, 1*(2), (n.p.). North Atlantic Treaty Organization, Allied Command Transformation (2017). Retrieved from https://www.openpublications.org/single-post/2014/05/01/The-Effectiveness-of-DIMEFIL-Instruments-of-Power-in-the-Gray-Zone

Office of the Chairman of the Joint Chiefs of Staff (OCJCS), (2019). *DOD Dictionary of Military and Associated Terms*.   Washington DC, The Joint Staff. Retrieved from: https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf

Office of the Under Secretary for Personnel and Readiness (OUSD P&R). (2018). Deputy assistant secretary of defense, force education and training. Retrieved from http://prhome.defense.gov/ Leadership/charlesDrummond.aspx

Office of the United Nations High Commissioner for Human Rights. (2017). *Report on the human rights situation in Ukraine - 16 August to 15 November 2017*. Retrieved from http://www.ohchr.org/Documents/Countries/UA/UAReport20th_EN.pdf

Ogden, B. (2017), Buttter bar to four star. *Joint Forces Quarterly, 87*,(4th Qtr), 46–53. Retrieved from https://ndupress.ndu.edu/JFQ/Joint-Force-Quarterly-87/Article/1325964/butter-bar-to-four-star-deficiencies-in-leader-development/

Pace, P. (2005). CJCS Vision for joint officer development. Washington, DC: U.S. Department of Defense. Retrieved from http://www.jcs.mil/Portals/36/Documents/Doctrine/education/cjcsvision_jod.pdf?ver=2017-12-29-142214-300

Pape, J. (2009). *How the Army Resists Change*, Monograph for the Army School of Advanced Military Studies United States Army Command and General Staff College Fort Leavenworth, KS. Retrieved from: http://indianstrategicknowledgeonline.com/web/How%20the%20Army%20Resists%20Change2.pdf

Paskal, C. (2017). Why the West is Losing the Pacific to China, the Arab League, and Just About Everyone Else," *Huffington Post*, weblog. Retrieved from https://www.huffingtonpost.com/cleo-paskal/why-the-west-is-losing-th_b_78668.html

Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.) Thousand Oaks, CA: SAGE.

Pedersen, K. (1977). A proposed model for evaluation studies. *Administrative Science Quarterly, 22*(2), (pp. 306–317). Retrieved from http://www.jstor.org/stable/239162

Perkins, D. (2015). *Strategic Business Plan for the Army University*. United States Army Training and Doctrine Command, Fort Eustis, VA. Retrieved from https://usacac.army.

mil/sites/default/files/publications/20150331_SIGNED_FINAL_Strategic_Business_Plan

_for_the_%20Army_University%28Unrestricted%29.pdf

Pierce, J., (2010). Is *the Organizational Culture of the U.S. Army Congruent with the*

Professional Development of Its Senior Level Officer Corps? Strategic Studies Institute,

Letort Papers. Retrieved from: https://ssi.armywarcollege.edu/pdffiles/PUB1015.pdf

Pierce, W., Gordon, J., and Jussel, P., (2015). Extending the Shelf Life of Teachers in

Professional Military Education, *Joint Forces Quarterly, 79*(4th Qtr), 63–70. Retrieved

From https://ndupress.ndu.edu/JFQ/Joint-Force-Quarterly-79/Article/621128/extending-

the-shelf-life-of-teachers-in-professional-military-education/

Ratner, E. (2019). *Testimony Before the Senate Armed Services Committee Hearing on*

Addressing China and Russia's Emergence as Great Power Competitors and the

Implementation of the National Defense Strategy, U.S. Congress. Retrieved from

https://www.cnas.org/publications/congressional-testimony/addressing-china-and-russias-

emergence-as-great-power-competitors-and-the-implementation-of-the-national-defense-

strategy

Ricks, T. (2012). *The generals: American military command from World War II to today*, New

York, NY: Penguin.

Ricks, T. (2013A). Need Budget Cuts? We Probably Can Start by Shutting the Air War

College. Retrieved from Foreign Policy. com.

Ridgewell, H. (2016). NATO Warns West is Losing 'Information War' Against Russia, Islamic

State Group, Voice of America. Retrieved from: https://learningenglish.voanews.com/

a/nato-warns-west-is-losing-information-war-against-russia-and-the-islamic-state-

group/3531437.html

Riley, R., Hatfield, J., Freeman, T., Fallesen, J., & Gunther, K. (2015). 2014 *Center for Army Leadership annual survey of army leadership (CASAL): Military leader findings* (Technical Report 2015-01). Center for Army Leadership, Fort Leavenworth, KS: Leadership Research, Assessment and Doctrine Division.

Rinehart, I. (2016). *The Chinese Military: Overview and Issues for Congress Analyst in Asian Affairs* (Congressional Research Service Report 44196).   Washington, D.C. Retrieved from: https://fas.org/sgp/crs/row/R44196.pdf

Robinson, L., Miller, P., Gordon, J., Decker, J., Schwille, M., & Cohen, R. (2014). *Improving strategic competence lessons from 13 years of war.* Santa Monica, CA: RAND.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Thousand Oaks, CA: SAGE.

Rudowski, J. (2018). What's new in Washington, DC – it's all about the budget. Association of the United States Army, Arlington VA. Retrieved from https://www.ausa.org /articles/what%E2%80%99s-new-washington-dc-%E2%80%93-it%E2%80%99s-all-about-budget

Rueda, R. (2011). *The 3 dimensions of improving student performance*. New York, NY: Teachers College Press.

Rumsfeld, D. (2006). *The Quadrennial Defense Review*. Office of the Secretary of Defense. Retrieved from: https://archive.defense.gov/pubs/pdfs/QDR20060203.pdf

Samaan, J., (2018). Comparative Strategy in Professional Education, *Parameters,* the U.S. Army War College Quarterly *48*(2), 27–38. Army War College Press, Carlisle Barracks PA. Retrieved from https://publications.armywarcollege.edu/pubs/3659.pdf

Samkian, A. (2018). *The qualitative coding progression* [lecture]. Los Angeles, CA: USC

> Rossier School of Education. Retrieved from https://s3.amazonaws.com/geedd/educ723/
>
> multimedia/Unit_8_OYS/qualitative_coding_progression.html#

Scales, R. H. (2010). Too busy to learn. United States Naval Institute. *Proceedings*, *136*(2), 30–

> 35.

Scaparrotti, C. (2019). *USEUCOM 2019 posture statement to the Senate Committee on Armed*

> *Services*. U.S. European Command Public Affairs. Retrieved from
>
> https://www.eucom.mil/media-library/article/39546/useucom-2019-posture-statement

Scharre, P. (2016, October 6). American strategy and the six phases of grief. *War on the Rocks*.

> Retrieved from https://warontherocks.com/2016/10/american-strategy-and-the-six-
>
> phases-of-grief/

Schein, E. (2004). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.

Seli, H. (2018). Organizational culture and context influences [and] sociocultural approaches.

> [lecture]. Los Angeles, CA: University of Southern California.

Shanahan, P. (2019). *Indo-Pacific Strategy Report*.   The Department of Defense. Retrieved

> from https://media.defense.gov/2019/May/31/2002139210/-1/-
>
> 1/1/dod_indo_pacific_strategy_report_june_2019.pdf

Shahnazarian, D., Hagemann, J., Aburto, M., Rose, S. (2013). *Informed consent in human*

> *subjects*. Los Angeles, CA: University of Southern California Research Office for the
>
> Protection of Research Subjects.

Smith, J., Kaufman, D., Dorff, R., & Brady, L. (2001). *Educating international security*

> *practitioners: Preparing to face the demands of the 21st century international security*
>
> *environment*. Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College.

Sookermany, A. M. (2017). Military education reconsidered: A postmodern update. *Journal of Philosophy of Education*, *51*(1), 310–330. Retrieved from https://www.researchgate.net/ publication/311347377_Military_Education_Reconsidered_A_Postmodern_Update

Spillius, A. (2010). Pentagon abandons two-war doctrine, *The Telegraph.*   Retrieved from: https://www.telegraph.co.uk/news/worldnews/northamerica/usa/7140418/Pentagon- abandons-two-war-doctrine.html

Stokes, M. & Hsiao, R. (2013). *The People's Liberation Army General Political Department Political Warfare with Chinese Characteristics*, Project 2049 Institute. Retrieved from: https://project2049.net/wp-content/uploads/2018/04/P2049_Stokes_Hsiao_PLA_ General_Political_Department_Liaison_101413.pdf

Stone, A., (2017). Critical Thinking Skills in USAF Developmental Education, *Air & Space Power Journal,* (31), 2, Summer, 52–67. Retrieved from https://www.hsdl.org/ ?view&did=801219

Straus, S., Shanley, M., Crowley, J., Yeung, D., Bana, S., & Leuschner, K. (2014). *Developing Army leaders: Lessons for teaching critical thinking in distributed, resident, and mixed- delivery venues*. Santa Monica, CA: RAND

Stufflebeam, D. (2001). Evaluation models. *New directions for evaluation, 2001*(89), 7–98. Retrieved from https://doi.org/10.1002/ev.3

Svinicki, M. D. (2010). Fostering a Mastery goal orientation in the classroom. In S. A. Meyers & J. R. Stowell (Eds.), *Essays from excellence in teaching* (Vol. 9, pp. 11–16). Retrieved from the Society for the Teaching of Psychology website: http://teachpsych.org/ resources/e-books/eit2009/index.php

The White House, Office of the Press Secretary. (2017). *National security strategy of the United States of America*., Washington DC Retrieved from https://www.whitehouse.gov/wp-content/ uploads/2017/12/NSS-Final-12-18-2017-0905.pdf

Troeder, E. (2019). *A whole-of-government approach to gray zone warfare*, Strategic Studies Institute and U.S. Army War College Press. Carlisle Barracks, PA. Retrieved from: https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1411

Troxell, J. (1997). *Force planning in an era of uncertainty: Two MRCs as a force sizing framework*. Retrieved from: https://ssi.armywarcollege.edu/pdffiles/PUB317.pdf

Troxell, J. (Ed.). (2016). *U.S. Army War College, key strategic issues list academic year 2016-2017*. Carlisle, PA U.S. Army War College Press. Retrieved from www.StrategicStudiesInstitute.army.mil.

Tulak, A. (1994). *The United States Army in Peace Operations*. Center for Defense and Strategic Studies, Missouri State University, Springfield MO. Retrieved from The Defense Technical Information Center. Document No. ADB186170

Tulak, A. (2016). New challenges in the information environment. *Indo-Asia Pacific Defense Forum*, *41*(3), 18–25. Retrieved from: http://apdf-magazine.com/hybrid-warfare/

Tulak, A. (2019). A New Era of Deterrence. *Indo-Pacific Defense Forum, 44(2),* 10–17. Retrieved from: http://apdf-magazine.com/iPDF_v44n2_eNG.pdf

Turner, L. J. (2017). *Developing Army leaders through increased rigor in professional military training and education.* Fort Leavenworth, KS: US Army Command and General Staff College. Retrieved from https://apps.dtic.mil/dtic/tr/fulltext/u2/1039557.pdf

U.S. Army Combined Arms Center, (USACAC). (2003). *The Army training and leader development panel officer study report to The Army*. Retrieved from http://www. dtic.mil/dtic/tr/fulltext/u2/a415810.pdf

U.S. Army Combined Arms Center, (USACAC). (2015). T*alent management concept of operations for Force 2025 and beyond*. Fort Leavenworth KS. Retrieved from https://usacac.army. mil /sites/default/files/publications/TM%20CONOP%20Final-Signed%20v2.pdf

U.S. Army Combined Arms Center (USACAC), (n.d.) Army Operating Concept Summary. Retrieved from: https://usacac.army.mil/sites/default/files/documents/cact/Army OperatingConceptSummary.pdf

U.S. Army Combined Arms Center Public Affairs (USACAC PA), (2015). Army University to organize education programs, *Fort Leavenworth Lamp,* Fort Leavenworth KS. http://www.ftleavenworthlamp.com/article/20150709/NEWS/150709419

U.S. Army Command and General Staff College (CGSC). (2016). *CGSC circular 350-1, U.S. Army Command and General Staff College Catalog for the academic year 2015-2016.* Fort Leavenworth KS. Retrieved from https://usacac.army.mil/sites/default /files/documents/ cace/350-1_CGSCCatalog.pdf

U.S. Army Command and General Staff College (CGSC) (2014), *CGSC Circular 350-5.* Fort Leavenworth KS. Retrieved from: https://usacac.army.mil/sites/default/files /documents/cace/12-1/12-1_AppC_Electives.pdf

U.S. Army Training and Doctrine Command (TRADOC). (2002). *Institutional Leader Training and Education,* TRADOC Regulation 350-10. Fort Monroe, VA: Deputy Chief of Staff

for Operations and Training. Retrieved from

http://www.tradoc.army.mil/tpubs/regs/r350-10.htm

U.S. Army Training and Doctrine Command (TRADOC). (2014). *The United States Army Operating concept: Win in a complex world* (pamphlet 525-3-1)*.* Fort Eustis, VA. Retrieved from http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf

U.S. Army Training and Doctrine Command (TRADOC). (2016). *TRADOC pamphlet 350-70-16, Army training and education proponents*. Fort Eustis, VA. Retrieved from http://tradoc.army.mil/tpubs/pams/TP350-70-16.pdf

U.S. Army, Training and Doctrine Command (TRADOC). (2017a). *TRADOC regulation 10-5*. Fort Eustis, VA. Retrieved from http://www.tradoc.army.mil/tpubs/regs/tr10-5.pdf

U.S. Army Training and Doctrine Command (TRADOC). (2017b), *Multi-domain battle: Evolution of combined arms for the 21st century 2025-2040*. Fort Eustis VA. Retrieved from: https://2sc.rossieronline.usc.edu/mod/page/view.php?id=137175

U.S. Army Training and Doctrine Command (TRADOC). (2017c), The U.S. Army Learning *Concept for Training and Education, 2020-2040,* TRADOC PAM 525-8-2, Fort Eustis VA. Retrieved from: https://adminpubs.tradoc.army.mil/pamphlets/TP525-8-2.pdf

U.S. Army Training and Doctrine Command (TRADOC). (2018a). Memorandum for Record, Subject: Army Sponsorship for Research to Improve Army War College PME.

U.S. Army Training and Doctrine Command (TRADOC). (2018b). U.S. Army Concept: Multi-Domain Combined Arms Operations at Echelons Above Brigade 2025-2045, TRADOC Pamphlet 525-3-8. Fort Eustis VA. Retrieved from: https://adminpubs.tradoc.army. mil/pamphlets/TP525-3-8.pdf

U.S. Army Training and Doctrine Command (TRADOC). (2019), Multi-Doman Operations

(Power Point information briefing, UNCLASSIFIED), slide 20.

U.S. Army War College (USAWC). (n.d.). DDE Curriculum. Retrieved from

https://ssl.armywarcollege.edu/dde

U.S. Army War College (USAWC). (2011). *How the Army runs: A senior leader reference

handbook, 2011-2012,* Carlisle Barracks, PA: Retrieved from

http://www.dtic.mil/dtic/tr/fulltext/ u2/a551164.pdf

U.S. Army War College. (2015a). Memorandum, Subject: Senior Leadership Seminar Phase I

(SLS I), USAWC Alumni Survey, January 2015. Carlisle Barracks, PA.

U.S. Army War College. (2015b). *Academic Programs Guide AY 2016.* Retrieved from

https://www.carlisle.army.mil/kmn/home/AcademicProgramsAY2016.pdf

U.S. Army War College. (2016a). *Theory of war and strategy. Course directive. AY17.* Retrieved

from https://ssl.armywarcollege.edu/.../Directives/AY17_Theory_of_

War_and_Strategy.pdf

U.S. Army War College. (2016b). *Academic year 2017. Core curriculum. Introduction to

strategic studies course*. Retrieved from https://ssl.armywarcollege.edu/documents/.../

AY17_Intro_to_Strategic_Studies.pdf

U.S. Army War College (2016c). *Campaign Planning Handbook.* Department of Military

Strategy, Planning, and Operations, Carlisle Barracks, PA. Retrieved from

https://ssi.armywarcollege.edu/pdffiles/pcorner/campaignplanninghandbook.pdf

U.S. Army War College. (2017a). *Welcome to graduation, class of 2017*. Retrieved from

https://www.armywarcollege.edu/news/Archives

U.S. Army War College. (2017b). *Academic Year 2018* C*ore Curriculum, Introduction To Strategic Studies Course And Strategic Studies Capstone Directive.* Retrieved from https://www.armywarcollege. edu/documents/Directives/AY18%20Introduction %20to%20Strategic%20Studies%20Core%20Course.pdf

U.S. Army War College. (2017b). *Academic Year 2018* C*ore Curriculum, Introduction To Strategic Studies Course And Strategic Studies Capstone Directive.* Retrieved from https://www.armywarcollege. edu/documents/Directives/AY18%20Introduction %20to%20Strategic%20Studies%20Core%20Course.pdf

U.S. Army War College. (2017c). *National Security Policy and Strategy Course Directive*. Retrieved from https://ssl.armywarcollege.edu/documents/Directives/AY17_National_ Security_Policy_and_Strategy.pdf/13331.pdf

U.S. Army War College. (2017d). *Academic Year 2018 Core Curriculum Theater Strategy and Campaigning Course Directive.* Retrieved from https://www.armywarcollege.edu/ documents/Directives/AY18%20Theater%20Strategy%20&%20Campaigning%20Core% 20Course.pdf

U.S. Army War College. (2017e). *AY18 Theory of War & Strategy Core Course*. Retrieved from https://www.armywarcollege.edu/documents/Directives/AY18%20Theory%20of%20War %20&%20Strategy%20Core%20Course.pdf

U.S. Army War College. (2017f). *Defense strategy course curriculum*. Retrieved from https://ssl.armywarcollege.edu/dde/curriculum.cfm

U.S. Army War College. (2017g). *Academic Programs Guide.* Retrieved from https://www.armywarcollege.edu/documents/Academic%20Program%20Guide.pdf

U.S. Army War College, (2017h). Academic Year 2018, Strategic Leadership Course Directive.

U.S. Army War College, (2017i). *Academic Year 2018 Defense Management Course Directive*.

U.S. Army War College. (2018a). *Online faculty directory*. Retrieved from

https://www.carlisle.army.mil/orgs/SSL/Faculty/index.cfm

U.S. Army War College, (2018b). A*cademic Year 2019 Theater Strategy and Campaigning

Course Directive*. Carlisle PA.

U.S. Army War College, (2018c). *Campaign Planning Handbook: Academic Year 2019*.

Department of Military Strategy, Planning, and Operations. Carlisle Barracks, PA.

U.S. Army War College, (2018d). Memorandum, Subject: AY 19 Curriculum

Guidance. School for Strategic Landpower, Carlisle Barracks PA.

U.S. Army War College, (2018e). *Defense Planners Course Syllabus*, Department of Military

Strategy, Planning, and Operations (DMSPO).

U.S. Army War College, (2018f). *Theory of War and Strategy Directive*. Carlisle Barracks, PA.

U.S. Army War College, (2018g). *Academic Year 2019 Electives*. Carlisle Barracks, PA.

U.S. Army War College, (2018h). USAWC General Officers/SES Survey 2018. Office of

Institutional Assessment, Carlisle Barracks, PA.

U.S. Army War College, (2018i). *Academic Year 2019, Joint Warfighting Advanced Studies

Program (JWASP)*. Carlisle Barracks, PA.

U.S. Army War College, (2018k). *Academic Year 2019, Foundational Skills, Introduction to

Strategic Studies, and Strategic Studies Capstone Course Directive*. Carlisle Baracks,

PA.

U.S. Army War College, (2018l). *Academic Year 2019 National Security Policy and Strategy

Course Directive.* Carlisle Barracks, PA.

U.S. Army War College, (2018m). *John J. Pershing Strategic Certificate Program*.

    (PowerPoint) Proposal overview brief.

U.S. Army War College, (2018n). *Strategic Education Symposium, overview brief*. (PowerPoint)

U.S. Army War College, (2018o). Memorandum for Record, Subject: Administrative Review

    and Memo of Support (Nov, 8).

U.S. Congress. (1979). *The Taiwan Relations Act, Public Law 96-8, 93 Stat. 14*. Retrieved from

    https://www.gpo.gov/fdsys/pkg/STATUTE-93/pdf/STATUTE-93-Pg14.pdf

U.S. Congress. (2011). *United States Code, 2011 Edition, Title 10 - Armed Forces, Subtitle A -*

    General Military Law. Washington, DC: U.S. Government Printing Office.

U.S. Government Accountability Office. (2004). *Report to the Ranking Minority Member,*

    Committee on Armed Services, House of Representatives, Military Education: DOD

    needs to develop performance goals and metrics for advanced distributed learning in

    professional military education (Report #GAO-04-873). Washington, DC. Retrieved

    from https://www.gao.gov/products/GAO-04-873

Usry, F. (2004). *How critical thinking shapes the military decision making process*. Naval War

    College, Newport RI. Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/a425924.pdf

Valledor, C. J. C. (2015). *Strategy Education across the professional military education*

    enterprise. Retrieved from http://ssi.armywarcollege.edu/index.cfm/articles/Strategy-

    Education/2015/05/18

Vice Chairman of the Joint Chiefs of Staff (VCJCS). (2018). *Joint Concept for integrated*

    campaigning. Washington DC: U.S. Department of Defense. Retrieved from

    http://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joint_concept_integrated_

    campaign.pdf?ver=2018-03-28-102833-257

Watson, C. (2010) Chapter 6, A vision of developing the national security strategist from the

    National War College. In Marcella, G. (Ed.). *Teaching strategy: Challenge and response*

    (149-178). Carlisle Barracks, PA: Strategic Studies Institute.

Weiss, R. S. (1994). *Learning from strangers: The Art and Method of Qualitative Interview*

    Studies. New York, NY: The Free Press.

Wesley, E, (2019). *LANPAC Panel Discussion: Joint Force Contributions to Multi-Domain*

    Operations. Retrieved from: https://www.dvidshub.net/video/682292/lanpac-panel-joint-

    force-contributions-multi-domain-operations

Williams, T. (2013). Education for critical thinking, *Military Review, 93*(1), 49-54. Retrieved

    from http://www.armyupress.army.mil/Portals/7/military-review/Archives/English/

    MilitaryReview_20130228_art011.pdf

Winslow, D. (2000). *Army culture, Army Research Institute (ARI) Research Note 2001-04*.

    Research and Advanced Concepts Office, U.S. Army Research Institute for the

    Behavioral and Social Sciences, Alexandria VA. Retrieved from http://www.dtic.mil/

    dtic/tr/fulltext/u2/a383899.pdf

Wong & Gerras (2015). *Lying to Ourselves - Dishonesty in the Army Profession*, Strategic

    Studies Institute, U.S. Army War College Press. Carlisle Barracks PA. Retrieved from:

    https://ssi.armywarcollege.edu/pdffiles/pub1250.pdf

Yarger, H. (2010). How do students learn strategy? In Marcella, G. (Ed.). *Teaching strategy:*

    Challenge and response (pp 179-202). Carlisle Barracks, PA: Strategic Studies Institute.

Yuengert, L. (2017). *How the Army Runs*, Army War College Publication 3556, U.S. Army War

    College Press, Carlisle Barracks, PA. Retrieved from: https://publications.armywar

    college.edu/publication-detail.cfm?publicationID=3550

Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational research, 86*(4), 981-1015. doi:10.3102/0034654315626801

Zimmerman, T., (2010). USAWC BSAP program helps develop strategic planners, Army War College Public Affairs. Retrieved from: https://www.armywarcollege.edu/News/ Archives/11440.pdf

Zimmerman, T., (2012). JLASS brings together USAWC, other senior service college students to tackle complex problems, *Army War College News*. Retrieved from: https://www.army warcollege.edu

APPENDIX A

Survey Items

A. Preface to question #1-10: Certain forms of warfare have emerged, alongside the use of military and paramilitary means to achieve military objectives in peacetime competition. These questions address the following five concepts listed below.

1. Gray Zone Conflicts
2. Unrestricted Warfare
3. PLA Three Warfares Doctrine
4. Information Confrontation
5. Hybrid Warfare

B. Questions #1-5 assess the importance of USAWC students' understanding the concepts listed above.

1. Question 1: How important is it for USAWC students to understand Gray Zone Conflicts?
2. Question 2: How important is it for USAWC students to understand Unrestricted Warfare?
3. Question 3: How important is it for USAWC students to understand PLA Three Warfares Doctrine?
4. Question 4: How important is it for USAWC students to understand Russian concept of Information Confrontation?
5. Question 5: How important is it for USAWC students to understand Hybrid Warfare?

C. Answers for question #1-5:
   a. Very important
   b. Important
   c. Somewhat important
   d. Slightly Important
   e. Not at all important

D. Questions 6-10 assess the degree to which the Army War College curriculum currently informs students about the adversary forms of warfare listed above.

E. Questions 6-10:

1. Question 6: To what degree does the USAWC curriculum explain Gray Zone Conflicts?
2. Question 7: To what degree does the USAWC curriculum explain Unrestricted Warfare?
3. Question 8: To what degree does the USAWC curriculum explain PLA 'Three Warfares' Doctrine?
4. Question 9: To what degree does the USAWC curriculum explain the Russian concept of Information Confrontation?
5. Question 10: To what degree does the USAWC curriculum explain Hybrid Warfare?

F. Answers for question #6-10:

    a. Too much emphasis on this particular form of warfare – needs less attention
    b. Proper level of emphasis on this particular form of warfare – no modification required
    c. Insufficient level of emphasis on this particular form of warfare – needs more attention.
    d. Not sure what the right level of emphasis is for this form of warfare.

G. Questions #11-15:

    a. Question 11: How well are USAWC graduates able to recognize Gray Zone Conflicts in the real world?
    a. Question 12: How well are USAWC graduates able to recognize Unrestricted Warfare in the real world?
    b. Question 13: How well are USAWC graduates able to recognize 'Three Warfares' Doctrine in the real world?
    c. Question 14: How well are USAWC graduates able to recognize the concept of Information Confrontation in the real world?
    d. Question 15: How well are USAWC graduates able to recognize the concept of Hybrid Warfare Information Confrontation in the real world?

H. Answers for question #12-15: USAWC graduates are:

    a. Able to recognize and understand this concept in application by adversaries and potential adversaries,.
    b. Somewhat able to recognize and understand this concept in application by adversaries and potential adversaries.
    c. Unable to recognize this concept in application by adversaries and potential adversaries
    d. Not Applicable, students are not learning about this concept at the War College

I. Question #16: Based on the nature of the work USAWC graduates who are assigned to 3 and 4-Star HQs following USAWC, how would you rate the importance of understanding these concepts Officers tasked with supporting or developing theater strategy and operations at 3, and 4-Star HQs?

    a. Very important
    b. Important
    c. Somewhat important
    d. Slightly important
    e. Not at all important

APPENDIX B

Document Analysis Protocol

While much of the top-level curriculum overview documents for the USAWC can be found on the Internet, internal documents are necessary to understand how the USAWC has organized for, and carried out curriculum review and change in response to external tasks, and internal review processes. The CJCS OPMEP requires each PME institution to "have a well-defined, vigorous curriculum review program that accommodates near- and long-term changes in the PME environment" (CJCS, 2015A, p. C-1). The USAWC Curriculum Review Committee minutes and papers would be especially helpful to understand this process. Likewise, self-study reports submitted to the Middle States Association for accreditation reviews will reveal external assessments of the USAWC prepared for this process. Internal USAWC documents may reveal the existence of cultural models that are difficult to detect. Specifically, internal documents may reveal the degree to which USAWC faculty invest themselves in curriculum review and revision process, and whether the organization has formally recognized and accepted the tasks from Senior Army Leaders, TRADOC and CAC Headquarters, and Army and TRADOC regulations that are outlined in Table 1. The top-level curriculum reviews of the Theory of War & Strategy Core Course, the Defense Strategy Course, the Introduction to Strategic Studies Course, and the Theater Strategy & Campaigning Core Course in Chapter 2 did not reveal the level of attention paid to adversary concepts, doctrines, strategies and forms of warfare that make the current operating environment so complex.

Documents obtained from USAWC during the document analysis phase will be examined to determine:

1. Whether or not the USAWC formally acknowledged tasks in Table 1, Chapter One, from senior Army leadership to reform PME to "win in a complex world."

2. Whether the USAWC has established clear goals to respond to the challenges articulated by senior Army leaders to improve PME to respond to the 21st Century security environment "win in a complex world."

3. Whether the USAWC Curriculum Review Committee has taken any actions to review USAWC curriculum to assess if it is satisfying requirements to better address preparation of leaders to respond to the 21st Century security environment.

4. Whether learning goals or expected learning outcomes are clearly articulated with regard to the development of theater military strategies, and understanding of the adversary forms of warfare characterizing the 21st Century security environment.

5. How learning objectives promote mastery proficiency for the development of theater military strategies and theater campaign plans.

6. Whether learning assessment of theater military strategies and theater campaign plans sufficiently ensures knowledge transfer.

7. Whether cultural models can be identified through decisions made by USAWC Administration, the Curriculum Review Board, et al. on curriculum reform to respond to the 21st Century security environment.

8. Whether the USAWC faculty modified, considered modifying, or attempted to modify the core curriculum to increase attention to the adversary forms of warfare over the last three years.

9. Whether class lesson plans have been modified over the last three years to increase attention to the adversary forms of warfare in the instruction of all students.

10. Whether USAWC faculty have identified resource shortfalls or other obstacles to being able to deliver effective instruction on the adversary forms of warfare characterizing the 21st Century security environment.

11. Whether the USAWC faculty is receiving feedback from the 3 and 4-Star Commanders on the ability and skills of USAWC graduates to contribute to the development of theater military strategies that respond to the challenges of hybrid warfare.

12. Whether the USAWC faculty is receiving feedback from USAWC graduates posted to the 3 and 4-Star HQs in regards to their proficiency and skills in developing theater military strategies and theater campaign plans to respond to the challenges of Gray Zone operating environments and hybrid warfare actions.

The document analysis will be used primarily for triangulating data obtained through interview, a primary means of data collection.

APPENDIX C

Interview Protocol

Introduction

Thank you for volunteering your time for this interview today. As you know, I am enrolled in the USC Global Executive Education Doctorate program at the Rossier School of Education and I am conducting an evaluation study of how the Army War College is responding to the:

- Army University White Paper calling on the Army education system to address the growing complexity of the 21st Century security environment

- 2017 Army Vision for the OES for educating officers 2015 to have the problem-solving skills in complex and chaotic environments

- 2018 National Defense Strategy calling for developing senior leaders who will counter competitors and are competent in national-level defense and military strategy

The final product of my research will be a dissertation, that is expected to be completed in July 2019, in time to provide feedback to the USAWC in advance of the 2019/2020 academic year to support curriculum review aiming for implementation in the 2020/2021 academic year. The identity of participants in this study will be protected via the use of pseudonyms. This is will ensure the confidentiality of your remarks, and there will be no attributions to you or any other USAWC faculty member. I will provide a copy of the final report to you if you are interested in reviewing the findings. The data will be stored in a password protected computer for the period of the research.

Do you have any questions before we get started?

I would like your permission to record our conversation today, so that I will accurately capture your remarks. However, the decision to record is up to you, and you can tell me at any point to turn it off. After I have transcribed the interview, I would like to contact you to review my notes, to gain your concurrence that I have accurately captured the interview, and to ask questions for clarification.

Interview Questions

1. How long have you been teaching at the USAWC, and what portion[s] of the Strategy Education curriculum do you teach?

2. Can you tell me what you know about the calls to improve PME made by Secretary of Defense James Mattis, former Chairman of the Joint Chiefs of Staff, GEN Martin Dempsy, and former USACAC Commander GEN Robert Brown, specifically for Army Schools to execute curriculums to enable winning in a complex world?

3. How is the USAWC responding to these directives to improve PME to win in a complex world?

4. What do you see as the significant adversary concepts, in terms of the forms of warfare, that have made the 21st Century security environment so complex for strategists at 3 and 4-Star HQs responsible for developing or implementing theater military strategies? Follow with probes for any of the five major concepts not addressed in the answer.

5. In what courses are you and your colleagues teaching the forms (types) of warfare being employed by the Russian Federation and the Peoples Republic of China? How are these topics integrated into instruction?

6. How does the USAWC faculty educate students to understand the ways in which adversary hybrid warfare creates challenges to developing effective theater military

strategies at the high-priority Geographic Combatant Commands (USINDOPACOM, EUCOM, and CENTCOM)?

7.   How does the USAWC strategy education curriculum prepare students to be able to describe the ways in which adversaries make combinations of these forms, and to recognize these combinations in practice, if at all?

8.   How does the USAWC faculty assess the current strategy education curriculum in terms of meeting the needs articulated by senior Army leadership to prepare leaders to respond to the adversary forms of warfare characterizing the current security environment?

9.   Could you please describe any known gaps of the previous strategy education curricula and teaching strategy that may have led to Senior Leadership asking for improvement?

10.   How effective is the USAWC process for reviewing and revising curriculum to respond to the tasks from Senior Army leaders to improve PME to respond to the current security environment?

11.   Have you participated in reviewing and revising the USAWC Strategy Education curriculum? [If yes] What are the impacts on your workload as a member of the faculty resulting from curriculum review and revision efforts?

12.   In a perfect world, what does the USAWC Faculty need in terms of resources or policy to improve curriculum and teaching for strategy education?

13.   How does the USAWC faculty keep their Strat Education Curriculum up-to-date with the changing security threat environment? Is this something they are trying to do?

14.   What is the process by which the USAWC faculty assesses its own ability to educate USAWC graduates to effectively contribute to the development of theater military strategies at the CCMDs?

15.   Tell me how the current Strategy Curriculum preparing USAWC graduates to develop

        theater military strategies and theater campaign plans for Phase 0 / Competition, in the

        current security environment?

16.   What is the feedback mechanism to learn from USAWC graduates assigned to 3 and 4

        Star HQs on how well the Strategy Education curriculum prepared them for developing

        theater military strategies and theater campaign plans that effectively respond to the

        adversary forms of warfare?

17.   A 2016 SSI publication, *Outplayed: Regaining Strategic Initiative in the Gray Zone*

        recommends that CCMDs need to employ more active theater campaign models to respond

        to gray zone challenges and hybrid warfare. Can you tell me how these are being taught as

        part of the theater military strategy portion of the Theater Strategy & Campaigning Core

        Course, if at all?

APPENDIX D

Observation Protocol

A review of available literature points to certain principles that should be followed. First and foremost, among these is the principle that the observation protocol must be focused on obtaining answers to the research questions (Merriam & Tisdell, 2016). Accordingly, the interview and survey questions provide a reference for the kind of information that might be obtained by observing instruction.

Prior to the observation itself, the observer can obtain basic data, known widely in the education field as "pre-observation data" (this is a standard component of most observation protocols available online). This would include such data as the date and time of class, and placement of class or lesson within the unit of study, and where the observed class fits into the overall syllabus and curriculum, for example, are the topics taught in the beginning, middle, or end of the unit of study? To obtain this information, Marzano (2010), recommends a pre-observation meeting. Accordingly, will have a short office visit, telephone call or e-mail to the instructor to coordinate the observation could ask for the topic or topics of focus, and how they will be addressed in the class.

As this study seeks to understand how the USAWC will reform its curriculum to improve student outcomes as strategists in the 3 and 4-Star HQs, it makes sense that the observation protocol should focus on elements of instruction that focus on understanding adversary strategies and developing friendly strategies. Marzano (2010) developed an observation protocol that provides questions for the observer to answer through his, or her observation notes, which focus on what the instructor is doing to teach specified content. For strategy education, this would focus on what the instructor is doing to teach the topic at hand. For this study, that would

include adversary strategies in play, enduring objectives of the theater campaign plans of the CCMDs, and challenges facing the CCMD staffs in developing effective strategies. Examples of content-focused questions phrased according to Marzano's observation protocol applicable to strategy education would include these:

- What is the teacher doing to help students effectively interact with new knowledge?
- What is the teacher doing to help students generate and test hypotheses about new knowledge?

In addition, the Marzano model asks the observer questions to amplify the observed class to assess the placement of the class in the flow of instruction and explanation of concepts such as:

- Is this a lesson segment that involves new content?
- Is this a lesson segment involving practicing and deepening knowledge?
- Is this a lesson segment involving hypothesis generation and testing?

Merriam & Tisdell (2016) suggest that the observation protocol could include any codes developed to that point for the interviews which could be used to assigned to observations. Introduction to Lesson: Describe how the teacher starts the lesson (e.g., gives a content overview, relates the content to previous work or to science). Merriam & Tisdell (2016) also provide a checklist (pp. 141–142), of elements typical of instructional settings for the observer to describe, which includes:

1. The physical setting.
2. The participants
3. Activities and interactions
4. Conversation
5. Subtle factors
6. Observer behavior

I will describe the activities in the classroom using the note-taking techniques outlined in the data collection section of Chapter Three, capturing the six categories proposed by Merriam and Tisdell (2016).   I will be watching closely for characterizations of the complex 21st Century security environment and the challenges it poses to USAWC graduates as strategists in the 3 and 4-Star HQs responsible for developing or carrying out theater military strategies.

APPENDIX E

Interview, Document and Artifact Protocols

Organizational Mission (assigned)				
Educate and develop leaders for service at the strategic level while advancing knowledge in the global application of Landpower.				

Proposed Stakeholder Goal				
By academic year 2020/2021, the USAWC faculty will align learning objectives (LOs) in the strategy education curriculum to support the AOC and prepare USAWC for service at 3 and 4-Star HQs in the development and execution of effective theater military strategies.				
Assumed Knowledge Influence	**Knowledge Type**	**Initial Knowledge Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
K1: USAWC strategy education faculty must have mastery level knowledge of the forms (types) of warfare being employed by the Russian Federation and the People's Republic of China.	Declarative (Conceptual)	• Literature review reveals published USAWC Research on these topics. • Survey is designed to measure awareness and understanding of these concepts. Survey questions 1-10. • Reviews of course syllabi and lesson plans. • Interviews of USAWC faculty. Interview questions #4 - 6. • Observations of classroom instruction.	In the current security environment, the threat concepts, doctrines, strategies and forms of maneuver should be considered part of the facts "one must know to be familiar with, in order to understand and function effectively or solve problems in a given area" or discipline (Rueda, 2011) p. 28). Likewise, they represent the, "principles, generalizations, theories, models, or structures pertinent to a particular area" in this case, the complex world (Rueda, 2011, p. 28)	• Revise the REP / DEP curriculum to respond to the changing forms of warfare and adversary concepts and doctrines to improve learning and performance outcomes for USAWC students. • USAWC increases Faculty Development opportunities with service in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation in the faculty.

Assumed Knowledge Influence	Knowledge Type	Initial Knowledge Influence Assessment	Learning Solution Principle	Proposed Solution
K2: USAWC strategy education faculty must have mastery level knowledge of <u>theater strategy formulation</u> and current challenges to prepare USAWC graduates to effectively contribute to this task at 3 and 4-Star HQs.	Declarative (Conceptual) and Procedural (developing strategies).	• Literature review reveals published USAWC Research on these topics. • Document review – syllabi and lesson plans. • Survey questions 6-10, 16. • Interview questions # 4 – 9, 14, 15, 17. • Observation of strategy instruction.	Faculty are transferring conceptual and procedural knowledge so that students will know how to do the tasks, using the appropriate methods, models, techniques, rules and methods particular to the activity, in this case, the development and refinement of Theater Military Strategies (Rueda, 2011, p. 28).	No solution was proposed for this Knowledge influence, as it is a known asset and capability of the USAWC Faculty.
Assumed Knowledge Influence	**Knowledge Type**	**Initial Knowledge Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
K3: USAWC faculty must have mastery level knowledge of <u>theater military strategy execution</u>, <u>and</u> how to adjust them in execution (campaigning) to respond to the multiple variations and combinations of the forms of warfare that are complicating the development of military theater strategies that work.	Procedural	• Literature review reveals published USAWC Research on these topics. • Document review – syllabi and lesson plans. Survey question 16. Interview questions # 6, 13 – 15, 17. • Observation of strategy instruction.	Judgment, the "knowing how and knowing when to apply various procedures, methods, theories, styles, or approaches" is necessary for application, the implementation of the theater military strategy in peacetime/war (Ambrose, et al. 2008, p. 18). These are skills USAWC graduates need to better respond to the 21st century security environment in the	• USAWC increases Faculty Development opportunities with service in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation in the faculty. • USAWC should a more deliberate approach to using products of the research faculty that address the current security environ-ment and adversary concepts,

			development of effective theater military strategies. USAWC graduates must be "prepared to anticipate or solve a novel future challenge" (Clark & Estes, 2008, p. 63).	doctrines, strategies, and forms of warfare that complicate it.
Assumed Knowledge Influence	**Knowledge Type**	**Initial Knowledge Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
K4:USAWC faculty must be able to identify and address the strategy education learning objective gaps in the current syllabi, as well as supporting readings, activities, assignments and assessments.	Procedural USAWC faculty must identify gaps in curriculum and translate those gaps into learning objectives.	• Literature review reveals that the gaps may not yet be known, as the curriculum provides broad descriptions of subject matter and learning outcomes. • Document analysis may reveal past curriculum revision efforts to identify and address gaps. Review of syllabi and lesson plans. • Survey questions 6-10. • Interview questions # 6 – 15, 17. • Observation of strategy instruction.	USAWC Faculty must be able to anticipate the knowledge and skills needed to 'win in a complex world' in the operationally-focused 3 and 4-Star HQs to prevent the prevent the knowledge gap of not being "prepared to anticipate or solve a novel future challenge" (Clark & Estes, 2008, p. 63).	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC) so that faculty prioritize the relevant topics for gap analysis. • USAWC increases Faculty Dev- elopment opportunities with service in 3 and 4-Star HQs and Agencies focused on real-world challenges to support wider participation in the faculty.
Assumed Knowledge Influence	**Knowledge Type**	**Initial Knowledge Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
K5: USAWC faculty need to know how to design curriculum with the right learning objectives, that advances the learners' ability to apply the	Procedural	• The literature review reveals that the USAWC was directed to revise curriculum in response to changes in the character of warfare, and did so successfully. The most recent of these was in 2012 at the direction	Rueda (2011) explains that a method to understanding that linkage is to ask, "what does the stakeholder need to know in order to achieve those goals?" (p. 27).	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC) so that faculty can develop appropriate

knowledge and skills learned, supported by practice strategies for effective knowledge transfer.		of the Chief of Staff of the Army. However, the relevant question is whether or not the USAWC is currently doing this in response to the 21st Century security environment, focusing on how TMS are impacted by the forms of warfare. • Interview questions # 6 – 9, 13 – 16, 17.	Krathwohl (2002) explained that the construction of educational objectives should describe intended learning outcomes in terms of specific subject matter content that describe how the student will apply it (p. 213).	learning objectives to support.
Assumed Motivation Influence	**Motivation Construct**	**Initial Motivation Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
M1: USAWC faculty need to see utility in redesigning the strategy education curriculum to respond to the 21st century security environment to support Army goal of 'Winning in a Complex World.'	**Utility Value**	• The literature review demonstrates that the USAWC faculty has successfully redesigned its curriculum in the past to respond to then extant threats. As the USAWC has a philosophy of educating broadly, it will need to see a compelling need to change how it teaches strategy, to emphasize theater military strategy in the current environment. • Document analysis may reveal if USAWC faculty see value in making the effort to revise curriculum to support Army goals. • Interview questions # 2, 3, 7 – 13, 17.	Utility value represents the obtainment of extrinsic rewards (e.g., praise, public recognition, promotions, high status jobs) (Ambrose et al., 2010). USAWC faculty must see a "return on investment" for efforts made to improve strategy education curriculum to support the AOC.	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC) so that faculty see this is a priority. • USAWC establish organi-zational culture that is not perceived as 'resistant to change' to encourage faculty to attempt curriculum change.

Assumed Motivation Influence	Motivation Construct	Initial Motivation Influence Assessment	Learning Solution Principle	Proposed Solution
M2: USAWC faculty, as a group, should have individual and collective organizational efficacy in theater strategy content and instructional or curriculum redesign to improve strategy education in support of the Army Operating Concept.	Self-Efficacy	• The literature review shows that USAWC faculty understand the forms of warfare and the criticality of addressing them in CCMD theater military strategies (Echevarria, 2016; Freier, 2016). The literature review also demonstrates that the USAWC faculty have successfully refined and improved curriculum for strategy education in the past, based on the current threat. • Document analysis may reveal how the USAWC faculty approached tasks listed in Table 1 and assessed the curriculum. This may in turn reveal self-assessment of ability to do so. • Interview questions # 7-11, 13-15, 17.	One of the main principles of self-efficacy theory is that high self-efficacy can positively influence motivation (Hirabayashi, n.d.). Organizations and stakeholder groups with high self-efficacy will choose difficult tasks, expend greater effort, persist longer, use more complex strategies, and experience less fear and anxiety (Hirabayashi, n.d.) According to John Hattie, collective teacher self-efficacy is the second most effective tool in improving student performance (Killian, 2017).	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC)
Assumed Motivation Influence	**Motivation Construct**	**Initial Motivation Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
M3: USAWC faculty should see redesigning the curriculum to respond to 21st century security environment as a core component of their role as faculty in	Attainment Value	• The literature review demonstrated past success in re-designing curriculum. • Document analysis may reveal the degree to which USAWC faculty see value in curriculum re-design to respond to	Expectancy-value theory explains that an individual's or organization's expectancy of outcomes and values are influenced by task-specific beliefs	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC) • USAWC leadership should create an

preparing student success and deterring war.		the tasks in Table 1. Agendas and minutes of the Curriculum Review Committee would be a possible source. • Interview questions # 7-11, 17.	such as level of competence to accomplish the task, and perceptions of the difficulty of the task (Eccles, 2006; Eccles & Wigfield, 2002).	organizational culture that is not perceived as 'resistant to change.'
Assumed Motivation Influence	**Motivation Construct**	**Initial Motivation Influence Assessment**	**Learning Solution Principle**	**Proposed Solution**
M4: USAWC faculty should see redesign efforts as not too costly in terms of time and non-competitive with their current instructional load.	Cost Value	• Document analysis may reveal the degree to which USAWC faculty see curriculum re-design as irksome, time-consuming, or otherwise imposing costs on other aspects of USAWC operations. Agendas and minutes of the Curriculum Review Committee would be a possible source. • Interview questions # 10- 14.	Cost value, or cost belief is conceptualized in terms of the perceived amount of effort needed to succeed, cost of the emotional investment, performance anxiety, fear of failure, loss of time, energy and other opportunities available (Eccles, 2006; Eccles & Wigfield, 2002; Hirabayashi, n.d.).	• USAWC should consider hiring additional faculty to approach the Naval War College manning model of 2 faculty per seminar. This would create more time for faculty to focus on curriculum redesign/ change. • USAWC should consider if additional seminars can be established to improve faculty-to-student ratio, which would free up time for faculty to work on curriculum redesign / change. • USAWC leadership should create an organiz-ational culture that is not perceived as 'resistant to change.' • USWAC should take a more flexible approach

				to teaching topics not yet codified by doctrine.
Organizational Influence Category	**Assumed Organization-al Influence**	**Organizational Influence Assessment**	**Research Based Recommendation or Solution Principle**	**Proposed Solution**
O1: USAWC must establish goals, policies and procedures in line with achieving the Army goal of 'winning in a complex world' (reinforce a culture model that embraces change to modify learning objectives, instructional design, and content focused on theater strategy development for the 21st Century security environment).	Organization-al Cultural Settings	• Literature review has not revealed anything on the thinking of USAWC faculty and administration on what the USAWC is considering in terms of stated goals or polices to improve its strategy education curriculum. • Document analysis may reveal culture impacts, in particular, self-study reports submitted as part of its accreditation. • Document analysis is likely to reveal goals, policies and procedures. • Interviews with faculty members may reveal possible disconnects between what the USAWC leadership has stated as priorities for responding to gray zone conflict, and on improving and modifying curriculum. • Interview questions # 2, 3, 8- 11, 13, 17.	Researchers have found evidence that aspects of the cultural setting, or social context, of an educational institution can be a major influence on accomplishment of performance goals (Rueda, 2011; Schein, 2004; Winslow, 2000). Gallimore and Goldenberg (2001) propose that an organization's culture can be analyzed based on the concepts of cultural settings and cultural models, which may have effects on performance and goal achievement. Johnson-Freese (2013) observed that all of the U.S. War Colleges needed to set clear goals for improvement, and implement the necessary processes and	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC). • USAWC leadership should create an organiz-ational culture that is not perceived as 'resistant to change.'

				practices to support them. The very process of undertaking goal-setting is one way to enhance efficacy and task accomplishment (Dembo & Seli, 2016).
Organizational Influence Category	**Assumed Organization-al Influence**	**Organizational Influence Assessment**	**Research Based Recommendation or Solution Principle**	**Proposed Solution**
O2: USAWC must provide resources/ reduce obstacles, to Faculty efforts to carry out curriculum re-design to accomplish Army goal of 'winning in a complex world.'	Organization-al Cultural Settings	• Literature review has not revealed any data on cultural settings at the USAWC that indicate the College is not enabling faculty efforts to accomplish curriculum redesign in response to senior Army leader directives. • Document analysis may reveal cultural settings that impact decisions on resources for curriculum redesign. • Interview questions # 9-14, 17.	The influences of culture and context can either positively or negatively impact individual outcomes (Rueda, 2011).	• Expand existing USAWC Dept of Distance Education (DDE) programs that provide strategists to the Army and the Joint Force, namely the Defense Strategy Course (DSC) and the Defense Planners Course (DPC). • Introduce strategy education earlier and more consistently over career-long Officer PME to better prepare officers for effective work at 3 and 4-Star HQs. • USAWC should consider eliminating the requirement to ensure "replic-ability of instruction" to support

Organizational Influence Category	Assumed Organization-al Influence	Organizational Influence Assessment	Research Based Recommendation or Solution Principle	Proposed Solution
				curriculum change.
O3: USAWC must consistently communicate clear organizational goals to achieve Army goals of 'winning in a complex world,' and CAC goals of improving PME to respond to the 21st century security environment.	Organization-al Cultural Settings	• Document analysis. The internal communications in the USAWC to faculty and staff may reveal cultural settings communication efforts on the College's commitment to improve PME in response to senior Army leader directives in improving education about the 21st Century security environment and the development of theater military strategy. • Surveys will reveal the degree to which USAWC faculty have understood the priority attached to the forms of warfare characterizing the 21st Century security environment. Survey questions 1-10, 16. • Interviews are an effective means to determine what messages faculty and students receive about how the USAWC will prepare students to succeed in the complex 21st Century security environment against hybrid threats of China and Russia. • Interview questions # 2, 3, 13, 16.	Many organizations have difficulty in setting and communicating clear and measurable goals, and explains that this is often due to mixed or conflicting messages that create confusion about what the goals are, and their prioritization (Clark, video presentation, n.d.), slide #9).	• Articulate Strategy Education Goals to Support the Army Operating Concept (AOC) • Publish goal internally to Army leadership, and then via public affairs website, journal article, and other means, along with the elements of a strategy for how it will accomplish it.

APPENDIX F

Informed Consent/Information Sheet

IRB Template Version: 3-8-13

University of Southern California
Global Executive Education Doctorate Program, Rossier School of Education
3470 Trousdale Parkway, Los Angeles California, 90089-4038

INFORMATION/FACTS SHEET FOR EXEMPT NON-MEDICAL RESEARCH

Strategy Education for Winning in a Complex World.
An Evaluation Study of the U.S. Army War College

You are invited to participate in a research study. Research studies include only people who voluntarily choose to take part. This document explains information about this study. You should ask questions about anything that is unclear to you.

PURPOSE OF THE STUDY

This is an evaluation study of the Army War College's efforts to improve strategy education as a component of Field Grade Professional Military Education (PME) in response to calls for improvement from Secretary of Defense James Mattis, former Chairman of the Joint Chiefs of Staff, GEN Martin Dempsey, and former USACAC Commander GEN Robert Brown to the Army Schools to reform their curriculum to enable winning in a complex world. The study will evaluate how the USAWC is accomplishing this mission with regard to Strategy Education, and will identify any Knowledge, Motivation, and Organizational gaps that may hinder goal attainment.

PARTICIPANT INVOLVEMENT

If you agree to take part in this study, you will be asked to complete an online survey of multiple choice questions expected to take less than 20 minutes.

From this Survey group, a subset will be asked to participate in interviews, to be held on the USAWC campus. If you agree to take part in the interviews, you would be asked to support a 60-90 Minute interview on-campus, focused on the strategy education curriculum. An interview guide summary will be provided in advance. As part of this interview, you will be asked to approve or disapprove recording of the interview. You do not have to take part in the interview, or to consent to having it recorded. Following this interview, the researcher will contact you at a later date for a follow-up interview. Again, you do not have to consent to this second interview, or to allow recording.

A subset of the interview group, composed of teaching faculty, will be asked to participate in observation study of classes where elements of the strategy education curriculum are being

taught. If you agree to participate in this observation study, you will be asked to allow an observer to participate in the class for the purpose of observation data collection.

PAYMENT/COMPENSATION FOR PARTICIPATION

There is no payment or compensation for participation in the survey, interview, or observation.

CONFIDENTIALITY

Any identifiable information obtained in connection with this study will remain confidential. The data for this study will be compiled into a final report and dissertation, but none of the data will be directly attributed to you. I will be using a pseudonym to protect your confidentiality and will ensure you are not identified in any of the data in the final report.

The audio recordings of interviews will be destroyed once they have been faithfully transcribed. Participants have the right to review/edit the audio/video-recordings or transcripts.

I will provide a copy of the final report to you if you have any interest in reviewing my findings. The data will be stored in a password protected computer for 3 years.

Required language:
The members of the research team, the sponsoring agency and the University of Southern California's Human Subjects Protection Program (HSPP) may access the data. The HSPP reviews and monitors research studies to protect the rights and welfare of research subjects.

INVESTIGATOR CONTACT INFORMATION

Principal Investigator: Arthur N. Tulak, Tulak@USC.edu (808) 518-9208.

IRB CONTACT INFORMATION
University Park Institutional Review Board (UPIRB), 3720 South Flower Street #301, Los Angeles, CA 90089-0702, (213) 821-5272 or upirb@usc.edu

APPENDIX G

Recruitment Letter (e-mail)

Dear (name of USAWC Faculty Member),

I am a doctoral student at the University of Southern California Rossier School of Education conducting an evaluation study of the Army War College, approved by the Provost, per the attached memorandum. The focus of the study is on USAWC's efforts to prepare USAWC graduates for success in 3 and 4-Star HQs in the development and execution of theater military strategies that are effective in the competition phase against adversaries employing Gray Zone strategies and hybrid warfare methods. This study will provide useful feedback to the USAWC faculty on the following USAWC KSIL:

•   2016-2017 USAWC KSIL, Strategic Leadership, #3, "Examine how the Army can better prepare senior Army leaders to effectively contribute to national strategy (NSS, NDS, NMS) development. How can we adjust officer development to prepare leaders to apply the new Army Operating Concept, specifically, to 'win in a complex world'?"
•   2018 Army Research Plan, Theme #1: "How can the U.S. Army be more effective in complex operational environments?" KSI 1.2 "Evaluate whether the changing strategic environment and character of war require a corresponding change in the way Army leaders think about war."

The study has been approved by the USAWC Provost and includes an online survey, followed by interviews with a subset of survey respondents to be conducted on-site at the USAWC, and observations of classroom instruction of the Strategy Education curriculum. The attached information sheet from the USC IRB spells out the details of the study.

Participation is voluntary. Please opt-in, or opt-out for participation by answering this e-mail, and let me know if you will participate in the survey, are willing to participate in an interview, and/or permit observation of your instruction of a component of the Strategy Education curriculum. The survey is anticipated to take no more than 20 minutes. Interviews will be scheduled for a 60-90 minute time slot at your convenience. Class observation is according to the class schedule.

For the interview, I am looking for USAWC faculty who have at least 2 years teaching at the College, are currently teaching elements of the Strategy Education curriculum, and are familiar with past curriculum redesign efforts. Participants in the study will remain anonymous

Respectfully,

Arthur N. Tulak
COL, USA, Ret.