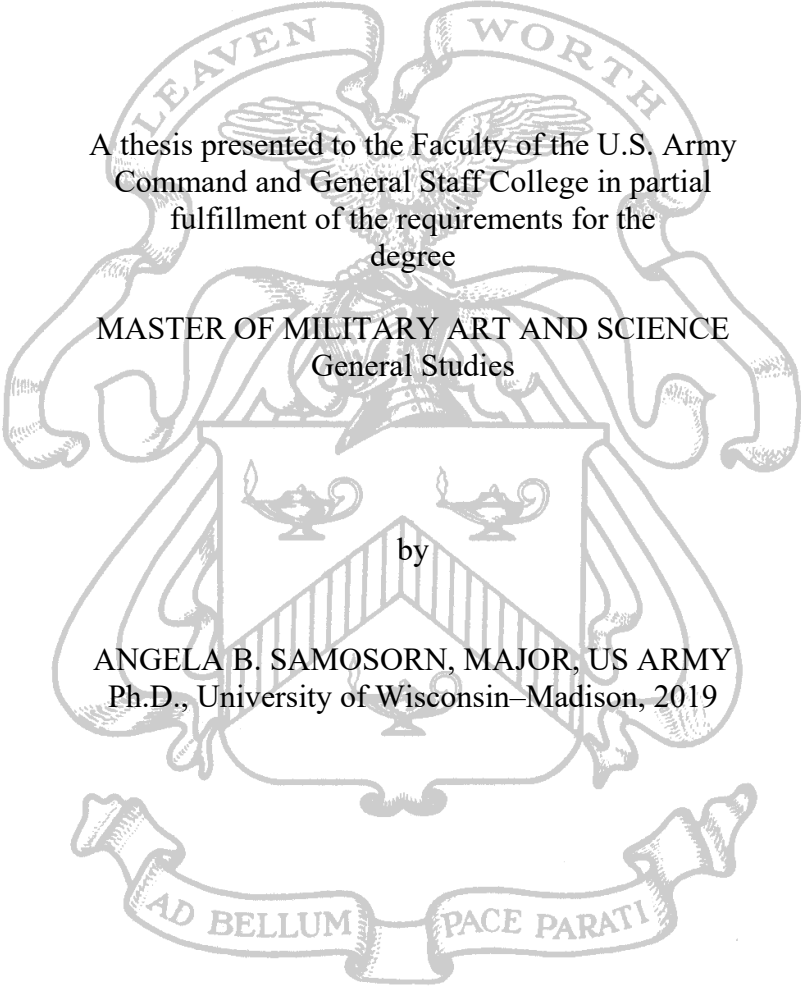HOW CREATIVITY IS INTEGRATED INTO THE UNITED STATES
ARMY WAR COLLEGE CURRICULUM AS TOLD BY FACULTY:
A QUALITATIVE CASE STUDY

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

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

ANGELA B. SAMOSORN, MAJOR, US ARMY
Ph.D., University of Wisconsin–Madison, 2019

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The military operating environment will continue to increase in complexity. Strategic leaders will be challenged in new ways, leaving little room to doubt that creativity will be needed to lead in the 21st century. The military has not historically focused on creativity as a leader trait or skill requiring development. However, the Joint Chiefs of Staff envision a much larger role for creativity and have explicitly stated creative development as an outcome of Professional Military Education. The United States Army War College educates the Army's strategic leaders, and creativity is necessary for strategic thinking and strategy building. Therefore, this study examines creativity from the perspective of United States Army War College faculty, specifically how faculty describe creativity within the curriculum. Creativity is framed within a system involving the student, the faculty, and the Army. The study's main finding is a misalignment in the system when defining, assessing, and assigning value to creativity. This misalignment is due to a system-driven focus on curriculum topics (system-driven pedagogy), the lack of formal evaluation within the Army's culture of accountability, and inconsistent language regarding creativity within doctrine and policies guiding Professional Military Education. Alignment in the system regarding creativity can be achieved through consistent language and a common definition of creativity, an outcomes-based approach to creativity, and formal evaluation of creativity.

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Approved by:

_____, Thesis Committee Chair
Lynn M. Soots Ph.D.

_____, Member
Steven A. Boylan, D.M.

_____, Member
Matthew W. Broaddus, EdD

Accepted this 18th day of June 2021 by:

_____, Assistant Dean of Academics for
Dale F. Spurlin, Ph.D.   Degree Programs and Research

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

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ABSTRACT

HOW CREATIVITY IS INTEGRATED INTO THE UNITED STATES ARMY WAR COLLEGE CURRICULUM AS TOLD BY FACULTY: A QUALITATIVE CASE STUDY, by Angela B. Samosorn, 123 pages.

The military operating environment will continue to increase in complexity. Strategic leaders will be challenged in new ways, leaving little room to doubt that creativity will be needed to lead in the 21st century. The military has not historically focused on creativity as a leader trait or skill requiring development. However, the Joint Chiefs of Staff envision a much larger role for creativity and have explicitly stated creative development as an outcome of Professional Military Education. The United States Army War College educates the Army's strategic leaders, and creativity is necessary for strategic thinking and strategy building. Therefore, this study examines creativity from the perspective of United States Army War College faculty, specifically how faculty describe creativity within the curriculum. Creativity is framed within a system involving the student, the faculty, and the Army. The study's main finding is a misalignment in the system when defining, assessing, and assigning value to creativity. This misalignment is due to a system-driven focus on curriculum topics (system-driven pedagogy), the lack of formal evaluation within the Army's culture of accountability, and inconsistent language regarding creativity within doctrine and policies guiding Professional Military Education. Alignment in the system regarding creativity can be achieved through consistent language and a common definition of creativity, an outcomes-based approach to creativity, and formal evaluation of creativity.

ACKNOWLEDGMENTS

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ACRONYMS

ADP   Army Doctrine Publication

AER   Academic Evaluation Report

CGSOC   Command and General Staff Officer College

CJCS   Chairman of the Joint Chiefs of Staff

HQDA   Headquarters Department of the Army

JCS   Joint Chiefs of Staff

OER   Officer Evaluation Report

OPMEP   Officer Professional Military Education Policy

PME   Professional Military Education

USAWC   United States Army War College

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CHAPTER 1

INTRODUCTION

The United States Army War College (USAWC) is the highest level of
Professional Military Education (PME). The complexity of the military operating
environment continues to grow, challenging strategic leaders in ways that have not been
needed in the past. The USAWC curriculum is charged with educating leaders to thrive,
and lead, in complex environments. There is little doubt that creativity is needed to lead
in the 21st century. Explicitly stated in the foreword of The Joint Chiefs of Staff Vision
and Guidance for Professional Military Education and Talent Management published in
2020, "our collective aim is the development of strategically minded joint warfighters,
who think critically and can creatively apply military power to inform national strategy,
conduct globally integrated operations, and fight under conditions of disruptive change"
(1).

The military has not historically focused on creativity as a skill to be developed
(JCS 2020). However, the Joint Chiefs of Staff (referred to as the Joint Chiefs throughout
the remainder of this document) envision a much larger role for creativity within PME
stating, "our vision is for a fully aligned PME and talent management system that
identifies, develops, and utilizes strategically minded, critically thinking, and creative
joint warfighters skilled in the art of war and the practical and ethical application of lethal
military power" (JCS 2020, 2). Even though the Joint Chiefs document seems to
encompass PME as a whole, the document does focus largely on strategic levels of
leadership and war. Therefore, a focus on the highest level of officer PME permeates this
document. This study examined the effect the USAWC curriculum has on the

development of student creativity from the perspective of USAWC faculty. Little is known about faculty perceptions of students' creative development during PME. Faculty experiences have the potential to shape curriculum reform to meet the intent of the Joint Chiefs.

Background

As Army Officers progress through the levels of PME, the structure of the problems students are asked to think about, evaluate, and solve become increasingly complex. Each level of education relies less on well-structured problems to get students thinking. The USAWC poses some of the most complex problems facing strategic leaders in the 21st century. USAWC students are expected to merge doctrine and experience with reflection and creativity to transform their thinking (USAWC, 2021).

The reliance on schoolhouse solutions that can be appropriate at lower PME levels are replaced with the reality that there may not be a perfect solution to an ill-structured strategic-level problem. Guidance from leadership at Training and Doctrine Command (TRADOC) and the vision of the Joint Chiefs drive curriculum development for Basic Officer Leader Course, Captains Career Course, Intermediate Level Education, and Senior Leader Education.

TRADOC Pamphlet 525-8-2 states "that the Army trains for certainty and educates for uncertainty" (2017, 21). The use of well-structured problems with a schoolhouse solution, what the academic institution deems the correct answer, are best suited for training such as unit-level tasks and skills. Implementing best practices in a static instructor-created environment allows training to develop the desired skills and

opportunities for experiential learning (Kolb 1984). However, unpredictable and dynamic environments that can lead to uncertainty do not always allow for use of best practices.

Military education environments, such as PME, often use ill-structured problems to highlight the inherent uncertainty within the operating environment. Cognitive complexity increases as an officer progresses through the levels of leadership, requiring greater creativity. The dynamic and unpredictable environments in which the Army's strategic senior leaders find themselves requires an ability to draw on a career's worth of experience and education to solve some of the most ill-structured problems of today's operating environment and those of the future (HQDA 2019c). Removing the reliance on best practices that come with a well-structured problem necessitates a change in the student's thinking, providing an opportunity for creativity to surface and a shift in perceptions (Mezirow, 1997).

Army doctrine defines creativity as "an attitude . . . creativity is a willingness to accept change and apply a flexible outlook for new ideas or possibilities" (HQDA 2015, 5-3). Creativity is different than creative thinking, which are "techniques to consider soundness and relevance of ideas" (HQDA 2015, 5-3). These terms are often used synonymously. Some creative research identify creativity as a trait that is inherent to an individual rather than a skill that can be developed, while other experts feel creativity is a skill (Baer and Kaufman 2005; Hong 2014; O'Neil et al. 2004; Surkova 2012). Some experts argue that creativity cannot be measured, while others apply scientific meaning for research purposes (Hong 2014). While the U.S. Army believes creativity is a skill that can be developed, historically, creativity has not been a focus of leader development. However, recent guidance places an explicit emphasis on creativity's inclusion in leader

development. In May 2020, the Joint Chiefs released their vision and guidance for Joint PME and talent management (JCS 2020). One required end state for Joint PME is the possession of "creative thinking skills" (4). Within the document, a version of the word "create" (i.e. creative, creatively, creativity) appears eighteen times; the highest of any skill mentioned in the document.

Problem Statement

Currently, in Army research, little is known about the role of PME in developing creativity within Army officers, but according to literature the USAWC faculty evaluate creativity in their students (Allen 2012). However little is known about faculty's pedagogical practices supporting students' creative development, faculty evaluation methods for determining creative output of students, and faculty perceptions of creativity within PME. While the Army's senior leader academic environments do address creativity as objectives in the curriculum, there is a need to further capture the ways in which the curriculum must evolve to emphasize methodologies of nurturing creativity through content and assessment.

Purpose of Study

How the USAWC curriculum aids in creative development of students, from the perspective of a bounded group, is not yet known. The purpose of this qualitative case study was to examine how USAWC faculty describe creativity within the USAWC curriculum, providing an understanding of creativity's current manifestation from the perspective of those directly interacting with the curriculum. This study focused

specifically on the curriculum, assessment of creativity, and the perceptions of USAWC faculty as they relate to the curriculum's ability to develop creativity in the students.

Research Questions

This study's primary research question asked how do the faculty at the United States Army War College describe creativity in the program curriculum?

The study's secondary questions asked:

1. How does the curriculum currently emphasize creativity?

2. How does the curriculum content need to change to increase emphasis on creativity?

3. How does the curriculum currently assess creativity?

4. How does the assessment of creativity need to change?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?

Definition of Terms

The Joint Chiefs' vision does not provide a definition to give a common frame of reference when discussing or measuring creativity within PME. The lack of a definition is problematic in that creativity is nebulous. The definition of creativity can change based on the discipline, context, personal opinion, or environment in which its being applied. For the purposes of this study, and to provide a common frame of reference, creativity was defined as: "a higher-order ability that is manifested in a creative *outcome* (e.g., product, performance, idea, or solution) that is *novel, appropriate, and of high quality*" (Hong 2014, 205).

<center>Scope</center>

For this study, the selection of the USAWC curriculum and faculty was based on two factors. The first was my current status as a student within the Command and General Staff Officer College (CGSOC). There was an increased potential for bias had I examined a curriculum in which I was taking part. The bias may have impacted data interpretation.

The second was the USAWC's mission to educate and advance the skills of the Army's strategic leaders (USAWC 2020). Strategic leaders are in a good position to draw heavily on experiences in both career and life and apply those to the experiential learning opportunities within the curriculum. While the use of applying professional experience in an education environment occurs at all levels of PME, there are expectations of USWC students to take it further. Through a focus on some of the most complex problems facing today's military, and the need for strategic leaders to change their frames of thinking (Mezirow 1997), development of learner's creativity should be evident in the curriculum.

The creative abilities of faculty or students of the USAWC were not determined, as no intervention or direct measurement took place during this study. Nor did it determine the faculty's ability to teach creativity, as no direct observations took place. What the study did was examine the way the USAWC's current curriculum operationalized the definition of creativity used within this thesis, and how faculty viewed the curriculum's ability to develop creativity.

<center>Assumptions</center>

There are five assumptions with which I entered this study. The first assumption, creativity was not a priority focus as it vied against other skills necessary of a strategic

<center>6</center>

leader (i.e. strategic communication, domain-specific knowledge for use in strategic level war, or teamwork). Assuming creativity to be of less priority stemmed from the latent focus on creativity from the Army's highest leaders and also the academic department's foci within the War College academic departments. The second assumption, assessment of creativity would be too fixed and rigid. Thus, removing a student's ability to think in a divergent manner and strictly framing the evaluation from the faculty. The assumption of rigidity was due to the military and PME's fixation on measurement evidenced by standardization, heavy reliance on doctrinal use for presenting the right answer, and order of merit lists. The third assumption, creativity would be used interchangeably with creative thinking and innovation both in the curriculum and in faculty interviews. Assuming the synonymous use of creativity, creative thinking, and innovation was due to the more common use of the terms innovation and creative thinking within doctrine and PME. Because I conducted this study as a CGSOC student, the fourth and fifth assumptions were that access to the USAWC curriculum would be granted and faculty of the USAWC would agree to an interview about creativity.

<u>Limitations and Delimitations</u>

Limitations are inherent restrictions in the methodology that are beyond the control or influence of the researcher. This study was not without limitations. Because qualitative research examines the experiences of individuals, the ability to apply findings to a larger population cannot occur. The first limitation was the inability to generalize the results to all faculty of the USAWC, or to faculty in all levels of officer PME. A second limitation was time. While time is not normally a limitation on methodology, due to my status as a student I could not impact the timeline for study completion. Therefore, in this

instance, time placed a restriction on the data collection methods I would normally put into place for conducting a case study. Finally, the inability to observe courses within the USAWC was a noted limitation. Observation of faculty and students interacting with the curriculum and the environment would provide a rich source of data but was not feasible for this study.

Delimitations are deliberate restrictive choices made by the researcher. In this study, time was a limitation. Therefore, the primary delimitation was the scoping and scaling of the study design to account for the time. The methodology of bounded case study (Creswell 2007) answered the study's questions. The case was bound by academic year to ensure participants experienced the same curriculum. Interviews were the primary data collection method for this study; limited time did not allow for a large number of interviews. The study was also framed to only focus on faculty, removing the student perspective on the USAWC curriculum's impact on their creative development. Through constructivism as an epistemological view (Crotty 2003), the life and career experiences of faculty, how they experience the curriculum, their teaching experiences, and their experiences with creativity influenced their interview answers. Data triangulation occurred through the use of literature, review of the USAWC's current curriculum as shared by participants, and interviews with USAWC faculty.

<u>Significance of the Study</u>

Currently, there is little known about the pedagogical practices of USAWC faculty when developing student's creativity. Lived experiences are an excellent form of data. My work provides an account of faculty experiences and perceptions in terms of creative development of students attending the USAWC. While the results do not speak

for every faculty member's experience, the data can shape future curriculum revision to meet the vision of the Joint Chiefs.

Summary

The Joint Chiefs of Staff have recently published a new vision for PME and talent management which places an emphasis on creativity. Given the historical lack of attention to creativity in leader development, this study examined how faculty of the USAWC perceive their experiences with the creative development of students attending the USAWC. The problem was examined through a bounded case study to answer the primary research question, "How do faculty of the United States Army War College describe their pedagogical practices surrounding students' creative development as an outcome of the curriculum?"

Five chapters make up the thesis. The background and introduction of the research questions were presented in this chapter. A discussion of the literature framing what is currently known about creativity's inclusion in the military and curricula follows in chapter 2. The methods used to conduct the study are presented in chapter 3 with analysis of collected data given in chapter 4. The thesis concludes in chapter 5 with a discussion and recommendations.

CHAPTER 2

LITERATURE REVIEW

Introduction

Creativity is important within the military. The United States Army views

creativity as a skill that can be developed. Chapter 1 discussed the historical lack of

attention to creative development within officer PME. There is little known about the

USAWC faculty's perceptions of the curriculum's ability to develop creativity within its

students. This literature review is organized into six main sections:

1. Theoretical foundation

2. Creativity: defining, importance in the military, and creativity in Army
   doctrine

3. Development of creativity: general development, development in the Army,
   development in PME, thwarting and supporting creative development

4. Assessment of creativity

5. Perceptions of creativity in PME

6. Case study approach

Literature from digital databases (EBSCO, JSTOR, and ProQuest), as well as the use of

journal articles already in possession of the researcher, set the foundation for the study.

Table 1 shows the search terms used to cull the literature.

Table 1.   Literature Review Search Terms

Search Terms		
Creativity	Creative	Role of faculty in creative development
Creative development	Creativity in the military	Creativity in curriculum
Measurement of creativity	Supporting creative development	Creative development of adults
Creative organizations	Creative development in organizations	Creativity in the US Army
Creativity in Professional Military Education	Suppressing/thwarting creative development	Creativity in higher education

Source: Created by author.

The literature review is a combination of acknowledged work from education theory and creativity experts with contemporary articles from multiple disciplines such as art, science, medicine, and the military. Articles used in this literature review were included based on studies with adult participants, and relevance to the topic rather than the date written. Encompassed into the review were books related to learning theory, learning sciences, research methods, and data analysis.

The Joint Chiefs explicitly stated Joint PME, which is the main focus of senior level PME, will develop "strategically minded joint warfighters, who think critically and can creatively apply military power to inform national strategy, conduct globally integrated operations, and fight under conditions of disruptive change." (JCS 2020, 1). The explicit requirement of creative thinking skills at the senior leader levels creates a gap in current knowledge about creative development in our senior level PME. While it is known that faculty evaluate USAWC students for creativity (Allen 2012), the faculty's

pedagogical practices supporting students' creative development are not known. This gap warrants examination.

Five questions guided this qualitative case study of the USAWC faculty's pedagogical practices surrounding students' creative development as an outcome of the curriculum. This study's primary research question asked how do the faculty at the United States Army War College describe creativity in the program curriculum?

The study's secondary questions asked:

1. How does the curriculum currently emphasize creativity?

2. How does the curriculum content need to change to increase emphasis on creativity?

3. How does the curriculum currently assess creativity?

4. How does the assessment of creativity need to change?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?

Theoretical Foundations

To better place the theories of learning within this study, a brief understanding of United States Army Officer PME can be of use. At its core, the Army is an organization that uses repetition of exposure to accepted doctrine and standards while increasing the complexity of the problems in given learning environments (TRADOC 2017). One primary outcome of PME is to "demonstrate critical and creative thinking skills, interpersonal skills, and effective written, verbal, and visual communication skills to support the development and implementation of strategies and complex operations" (CJCS 2020, A-2). There are three levels of commissioned officer PME. The first is

Primary (Lieutenant-Captain) focusing on tactical level knowledge that is service specific. Next is the Intermediate (Major) focusing on the operational level of war that is service specific with an introduction to joint operations. The last level is Senior (Lieutenant Colonel-Colonel), "that prepare[s] officers to develop and implement military strategies with an emphasis on Joint operations and some attention to Service-specific contributions" (CJCS 2020, A-4).

To strengthen the concepts of how creativity is developed through learning and feedback, the theories of Jean Piaget and Lev Vygotsky add further insight into the process of making meaning and shifting heuristically. Jean Piaget, the founder of constructivism, noted that active participation in learning rather than passive receiving of knowledge allows for the learner to create mental models (Nathan and Sawyer 2014). Vygotsky took Piaget's theoretical foundation one step further to note that learning is inherently social (Vygotsky 1978). Therefore, learning is a process grounded in experience and actions over time; what Kolb calls Experiential learning (Kolb 1984).

Experiential learning is the base for early levels of PME. Using doctrine, best practices, work and life experiences, along with collaboration and reflection, the well-structured problems given to junior officers help them form a frame of reference they can use in an educational setting and within the operating force. In experiential learning, the student must be open to a concrete experience where they take the time to reflect on the experience and create concepts that they can experiment with when making decisions or solving problems (Kolb 1984). The use of well-structured problems allows learners to effectively draw on previous experience to aid in solution generation.

As newly commissioned Army lieutenants begin Primary PME, they justify their points of view with doctrine and policies that support their way of thinking within the military culture (Mezirow 1997). Captains have more lived experience as officers and have had more time to hone their craft. When captains attend Primary PME, they begin to establish new points of view as they collaborate with peers and the problem sets increase in complexity; this is what Mezirow calls "objective reframing" (Mezirow 1997, 7).

Experiential learning continues into the highest levels of PME, but majors through colonel start to place greater emphasis on working toward transformative learning during Senior PME. Most USAWC attendees have twenty years or more of military service, providing numerous experiences from which to draw upon when working through the curriculum. USAWC students have a high level of competence anchored in a deep understanding of contextual knowledge of the military and their job within the military structure. They draw from facts and experience and turn those into usable pieces to create solutions (Bransford, Brown, and Cocking 2000). However, Mezirow states, "[w]e do not make transformative changes in the way we learn as long as what we learn fits comfortably in our existing frames of reference" (1997, 7).

Thinking beyond what students have experienced and know to change their frame of reference is the epitome of transformative learning and is quite difficult (Mezirow 1997). As senior officers begin the senior level of PME, the USAWC, they are again with a group of peers who bring new perspectives and experiences. Gone are the well-structured problems easily remedied with a review of doctrine and policy. The curriculum poses complex ill-defined problems. The learners have had experience with complex problems and transforming points of view through self-reflection as they progressed

through their career. This process is what Mezirow calls "subjective reframing" (Mezirow 1997, 7). While at the USAWC, learners are pushed to truly transform their way of thinking through critical reflection of their biases.

Creativity

Defining Creativity

After decades of research, literature consists of various definitions of creativity. Even with an array of definitions in multiple disciplines, common themes exist; creativity begins with form of originality and end with an appropriate outcome (Beghetto and Kaufman 2013; Hong 2014). There is also a consensus that a universal definition of creativity does not exist, but common language includes the production of something novel and useful. While the outcome of the creative process may result in an artifact, the result of creativity does not necessarily have to be tangible, "creativity can be the ability to find a solution where others fail" (Bentley 1999, 28).

In this study, creativity was defined as: "a higher-order ability that is manifested in a creative outcome (e.g., product, performance, idea, or solution) that is novel, appropriate, and of high quality" (Hong 2014, 205). This definition encompasses not only tangible artifacts, but also the intangible qualities of thought and solutions. The operationalization of the terms *novel*, *appropriate*, and *high quality* are not arbitrary. Novel means the idea is new, fresh, or unique while high quality is the effectiveness of the creative outcome. Appropriateness is determined by the context in which creativity took place. The creative outcome still needs to fit the task given, which has been noted to be a challenge in the PME environment (TRADOC 2017).

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The Joint Chiefs ask for greater creative thinking skills in today's leaders. However, the leadership of TRADOC–which is the organization responsible for the execution of PME–recognizes challenges with the use of creative thought in the learning environment. TRADOC Pamphlet 528-8-2 states "The Army's challenge is validating these socialized solutions as an authoritative source to ensure that the socialized solution is doctrinally correct and relevant" (2017, 28). In this case socialized solutions can be those ideas that do not follow the traditional way of thinking. Henriksen, Mishra, and Fisser (2016) note that, "creative work is dependent on context, because it is assigned value in relation to the domain it is created within" (29). Task appropriateness can help ground creative ideas, artifacts, and solutions within the context of the setting which may help validate an individual or groups creativity within the PME setting.

Wrapping up the defining of creativity, it is important to note experts have differing opinions on creativity as a trait that is innate to individuals and creativity that is a skill which can be developed (Baer and Kaufman 2005; Hong 2014; O'Neil et al. 2004; Surkova 2012). Traits are slow to develop, whereas skills can develop with focused interventions in less time. The U.S. Army, and therefore this study, view creativity as a skill. It is also important to point out that creativity and innovation are often used together, and frequently used synonymously. However, creativity and innovation are distinctly different. Creativity is the building block for innovation. Amabile (1988) defines innovation as "the successful implementation of creative ideas" (126). The use of ideas is what is important in innovation. Therefore, creativity is the production while innovation is the implementation.

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The Importance of Creativity in the Military

In a professional setting, the term "expert" is a desirable skill or knowledge level. However, creativity is also highly valued as military professionals progress through the 21st century. Allen (2009) states, "creative thinking . . . is a critical element of strategic thought and is necessary for successful leadership of our military" (1). While one can be both an expert and creative, it is important to note the distinct difference between an individual with expertise and an individual with creativity. According to Hong (2014), "creative talent generates original and valuable ideas or products, whereas expert talent is evidenced by analytical and problem-solving skills in a particular domain" (203). The Army acknowledges the importance of creativity and expertise when dealing with the unexpected within an operational environment (HQDA 2019e).

When faced with a problem, we draw on previous experience to help define the problem and possible solutions. Gary Klein (2017) uses sources of power when discussing decision making or problem solving, specifically intuition and mental simulation. Klein (2017) notes that past experience leads one to determine the urgency of the problem, determine what may be abnormal in the situation, if that abnormality is worth the time to solve, and what experiences could best fit the problem at hand. What Klein argues in this situation is that creativity is not needed in stating, "The creativity methods may sometimes look promising for identifying new possibilities, but the cost is having to plow through all the poor ideas" (Klein 2017, 147). While creative outcomes may take time, they are important for continued success in the 21st century.

Movement through the 21st century is creating a global interconnectedness that increases the complexity of problems. The rapidly changing social, political, and

technical environments are "volatile, uncertain, complex, and ambiguous (VUCA)" which creates a need to shift thinking (Allen 2009, 1). Allen states, "predominantly left-brain thinking (seeking rational, systemic, and predictable patterns), characteristic of the United States in the 20th century is no longer sufficient in this new century" (3). To counter the left-brained skills that led to past success, Pink (2015) believes the use of right-brained qualities such as "inventiveness, empathy, joyfulness, and meaning . . . will determine who flourishes and who flounders" moving forward in the 21st century (3).

Creativity in Army Doctrine

The 2018 *National Defense Strategy* is a strategic document penned by the Secretary of Defense, who states that leaders must "rigorously define the military problems anticipated in future conflict, and foster a culture of experimentation and calculated risk-taking" (Mattis 2018, 7). Creativity is further highlighted in doctrine at operational and tactical levels, as well as designing military operations and plans. In the rapidly changing operating environment of today's military, creativity is an asset. A Soldier that can think creatively contributes to the strength of the Army as it performs its "four strategic roles: shaping operational environments, preventing conflict, prevailing in large-scale ground combat operations, and consolidating gains" (HQDA 2019a, v).

Operational art (HQDA 2019b) and the art of tactics (HQDA 2019c) require creativity. "Operational art . . . requires creative vision, broad experience, and knowledge of capabilities, tactics, and techniques across multiple domains" (HQDA 2019b, 2-2). The *"art of tactics* is three interrelated aspects: the creative and flexible array of means to accomplish the missions, decision making under conditions of uncertainty when faced with a thinking and adaptive enemy, and the understanding of the effects of combat on

Soldiers" (HQDA 2019c, 1-2). The Army doctrine that speaks the most about creativity is

Army Doctrine Publication (ADP) 5.0, *The Operations Process* (HQDA, 2019d).

"Creative thinking examines problems from a fresh perspective to develop innovative

solutions. Creative thinking creates new and useful ideas, and reevaluates or combines

old ideas to solve problems" (HQDA 2019d, 1-15). The application of creative thinking

is a requirement of the operations process, while the commander is responsible for

collaboration all participants should be allowed to exercise creativity freely.

Development of Creativity

General Development of Creativity

Creativity's development is an ongoing process, much like any skill acquisition

(Dreyfus and Dreyfus 1986). The development of creativity is influenced by individuals,

groups, and organizations (Mumford 2012). Figure 1 (Mumford 2012, 19) depicts how

the individual, group, and the organizational creativity is mediated by various factors

through multiple levels of the system in which creativity is taking place.
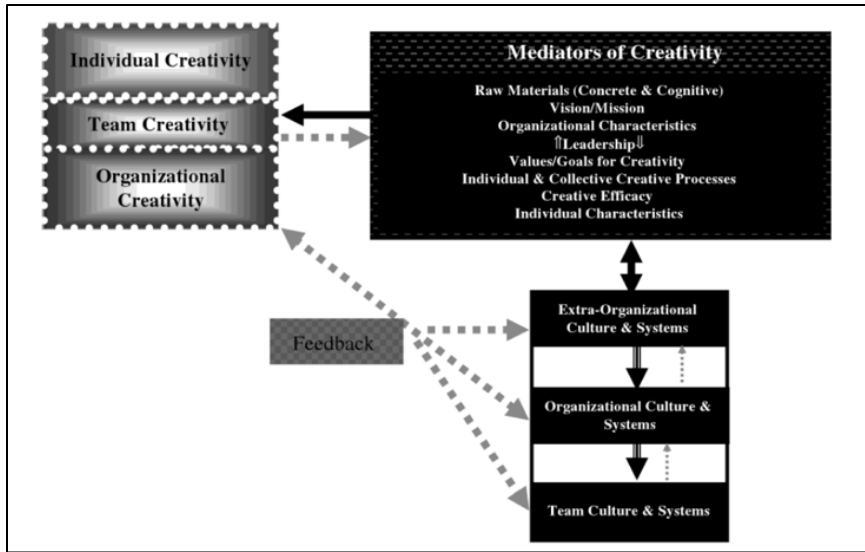
Figure 1.   Model of Multi-Level Organizational Creativity

Source: Mumford 2012, 19.

Mumford notes that "creativity does not develop in a vacuum. It is always rooted in the patterns, priorities, materials, trends, and techniques of traditions and collectives . . . it must somehow also deviate to some extent from the collective and traditional to be truly creative" (19). Mumford's assessment of creative development mirrors that of Amabile (1988) and Henriksen, Mishra, and Fisser (2016) in the realization that the environment is closely linked to creativity.

Even though this study did not assess a participant's creative ability, it is important to understand that in order for creativity to progress to teams and organizations it must start with an individual. Research has shown that creativity comes from a dynamic interaction between individuals, the culture within the environment, and the experts within that environment validating the outcome as creative (Henriksen, Mishra, and Fisser 2016). As mentioned earlier in this chapter, the students in attendance at the

USAWC have high levels of domain specific knowledge. However, Mezirow (1997)

states, "there is an egregious assumption that acquisition of knowledge or attainment of

competencies will somehow automatically generate the understandings, skills, and

dispositions involved in learning to think autonomously" (9).

Autonomous thinking is key in transformational learning. Individuals must also

have skills relevant to creativity. These are skills that push an artifact or a solution

beyond "good." In a study conducted by Amabile and Gryskiewicz, they found that

creative individuals had a cognitive ability that allowed participants to view problems

with a new perspective, understood and accepted risk, and had social skills that allowed

for collaboration (Amabile 1988). The cognitive ability to shift perspectives places a

learner in the transformative process. The learning environment within the USAWC can

foster transformation in thinking.

<div align="center">Development of Creativity Within the Army</div>

The military is built on core values such as loyalty, duty, and selfless service

(HQDA 2019a). From the time one enters military service, he or she is inculcated with a

respect for military values, culture, and doctrine. The dismissal of military culture's

impact on creativity development of its members can hurt the understanding of creativity

as a whole within the military.

ADP 6-22, Army Leadership and the Profession, highlights the Army's

uniqueness in leader development as an organization that "develop[s] and select[s] their

own leaders" (HQDA 2019e, 6-1). ADP 6-22 also lays out the skills and attributes

officers should possess. Officers are evaluated annually on their intellect, which includes

mental agility, sound judgment, innovation, interpersonal tact, and expertise (HQDA

2019e). According to ADP 6-22 (HQDA 2019e), "creative thinking involves thinking in innovative ways, using imagination, insight, and novel ideas" (4-1) by defining innovation as "the ability to introduce or implement something new" (4-2). The Army goes on to further state that "being innovative requires creative thinking that uses both adaptive (drawing from expertise and prior knowledge) and innovative approaches (developing completely new ideas)" (HQDA 2019e, 4-2).

The creative environment takes into account the internal and the external influences on the individual to identify problems. Figure 2 (Henriksen, Mishra, and Fisser 2016, 30) shows a clear relationship between the Soldier, the work or educational environment, and the larger military domain.
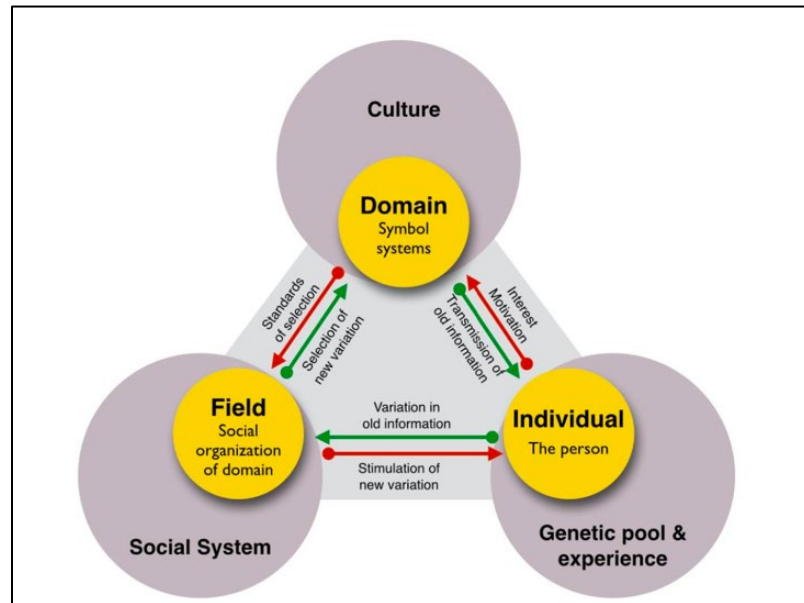
Figure 2.   Interaction between Individual-Field-Domain for Creativity

Source: Henriksen, Mishra, and Fisser 2016, 30.

The role strategic leaders have in the development of subordinates' creativity requires they possess their own creative abilities (Allen 2009). ADP 6-22 addresses Creativity throughout the document, however the chapter that specifically addresses strategic leadership (Chapter 10) does not discuss creativity aside from encouraging its use in subordinates (HQDA 2019e). There is no individual focus on a strategic leader's creative development, but there is a brief focus on the development of creativity in one's subordinates (HQDA 2019e).

Development of Creativity in Professional Military Education

Within the Army, TRADOC is the higher headquarters that oversees the creation and conduct of PME. At all levels, Army learning environments combine "training, education, and experience to develop agile, adaptive, and innovative Soldiers" (TRADOC 2017, iii). The USAWC mission, as defined by the Joint Chief's is stated as, "Educate and develop leaders for service at the strategic level while advancing knowledge in the global application of Landpower" (CJCS 2020, A-B-8). Through a 10-month in-residence program with close to 400 students per year, or a distance education option that is done in a hybrid format over a two-year period with 482 students, attendees "practice creative and critical thinking in a non-threatening schoolhouse or training environment [which] enhances problem-framing (design) and problem-solving (planning) skills" (TRADOC 2017, 21).

Using experiences that span their career, TRADOC leadership expect strategic leaders to think critically, creatively and systematically to anticipate problems and adapt to unexpected changes in the environment (TRADOC 2017, 22). Strategic leaders' problem definitions directly impact the creative ability of subordinate leaders who look to

the problem statement for scoping and framing solutions (Allen 2009). As Allen (2009) states, "the attainment of new skills and competencies, specifically in individual creativity and maintaining a creative climate, are required for success at the senior levels of our institutions" (2).

The Joint Chiefs now require PME institutions to identify students with increased potential for strategic thinking (CJCS 2020). Faculty members at the USAWC define strategic thinking as "the ability to make creative and holistic synthesis of key factors affecting an organization and its environment in order to obtain sustainable competitive advantage and long-term success" (Allen 2012, 1). Innovation, adaptability, and novel solution development (Vego 2013; HQDA 2019d) are skills that the learning environment within the USAWC can assist in developing.

Thwarting and Supporting the Development of Creativity

There are personal, environmental, and organizational ways in which creativity and creative development can be supported–or thwarted. With the USAWC students being successful in prior PME levels and work environments, there is a tendency to revert to what has worked in the past (Allen 2009; Kayaalp 2018) which can rapidly supply an answer (Allen 2009). Runco (2014, 360) established a list of ten ways that creativity is stifled:

1. Look to the right answer
2. Focus on what is logical
3. Follow the rules
4. Consider what is practical
5. Avoid ambiguity

6. Avoid mistakes

7. Avoid play

8. Stay within your own areas of experience

9. Avoid the possibility of appearing foolish

10. Think of oneself as uncreative

According to Vego (2013), military members have inherent traits that can prevent the development and use of creativity. Things such as "authoritarian, bureaucratized system . . . exemplified by conformity, group think, parochialism, dogmatism, intolerance, and anti-intellectualism . . . prompt and unquestioning obedience and execution of orders" (84). Developing creativity can seem frustrating; however, there are actions that support its development.

Just as there are ways to thwart, there are also ways to support creative development. Individual personality traits can help foster creativity (Amabile 1988). Things such as "independence, self-discipline, ability to delay gratification, perseverance in the face of frustration, and an absence of conformity in thinking or dependence on social approval" (Amabile 1988, 132). In an interview study by Amabile and Gryskiewicz (Amabile 1998), creative development is heavily influenced by the work environment which provides time to think creatively about a problem. Participants in the study reported self-motivation as a reason for successful creative endeavors (Amabile 1998). Motivation is also noted by Baer and Kaufman (2005) as an important factor in creativity. The interview study suggested that the work environment may be the "most straight-forward component to address in attempts to stimulate creativity" (133). Other situations have been shown to support creative development such as support of leadership

(Kayaalp 2018) and tolerance for divergent thought (Vego 2013). In the learning environment, assignments that are a bit ambiguous in nature all for "an opportunity to be foolish, have fun, and take risk in a non-threatening environment" (Allen 6). Whether or not a solution or artifact is creative is not as straightforward as saying "yes" or "no."

<div align="center">Assessment of Creativity</div>

Because the USAWC is an academic institution, the use of objectives and learning areas must be included in the instruction. Within the curriculum of the USAWC, Joint Learning Area 1 states that students will demonstrate "strategic thinking and communication . . . demonstrate advanced cognitive and communications skills employing critical, creative, and systematic thought" (CJCS 2020, A-A-1). Measuring the creativity of a person or a process is difficult. The measure of creativity in a product is much easier, especially when the product is viewed by experts that can identify creative elements (Amabile 1988). A creative idea has an individual's own thoughts while still following the guidelines given for the situation, be it a classroom or a professional setting.

There are three common elements of assessment: cognition, observation, and interpretation (Pellegrino 2014). In terms of cognition, the faculty indicate what is important for knowledge assessment; the "what" a student needs to know. Observation is how the student displays what he or she knows through things such as tests, papers, participation in discussion, presentations or other artifacts. Finally, interpretation takes place when a set of evaluation criteria are used with the observations. As Pellegrino (2014) notes, the three elements of assessment must provide a meaningful alignment. The

alignment can assist in the validation of a creative product meeting the doctrinal guides of warfare or military conduct.

Due to the complexity of creative development, it should be infused across an entire curriculum, not just in one lesson or single block of instruction (Henriksen, Punya, and Fisser 2016). The Joint Chief's vision for PME provides the top level of policy that feeds into the lower levels of curriculum design and implementation. Curriculum should include "participatory, project-based, constructivist and collaborative pedagogies" to ground it within the learning sciences (Sawyer 2014, 728).

Leading scholars in creativity have identified four levels of creativity, which can be used to assess thoughts or artifacts: Mini-c, Little-c, Pro-C, and Big-C (Beghetto and Kaufman 2007; Kaufman and Beghetto 2009). The reach of creativity's impact lengthens as levels progress. Mini-c, or interpretive creativity occurs when a student is able to use new insight when given a problem. Little-c, or everyday creativity is evident when a learner creates an original artifact, idea, or solution using their own thoughts. Pro-c, or expert creativity, is a larger idea that takes hold in a particular context. Big-C, which has been deemed legendary creativity leads to a major change that impacts an entire discipline and creates new processes and products that remain as a new normal. As one can imagine, Big-C creativity is rare. Creativity does require a novel thought or idea, but it does not need to lead to monumental change.

Thinking about the evaluation of creativity in PME, the focus on Mini-C and Little-C is a good start. Army learning is "outcomes based, focused on producing defined outcomes that meet specified goals through rigorous assessment" (TRADOC 2017, 15). Not having to produce a grand idea or artifact to be considered creative, the use of a

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rubric for assessment is still appropriate. Rubric-driven assessment of analytical thinking and fact-based memorization remain a primary method of student assessment (Hong 2014). As the definition of creativity states, the outcomes need to be novel, appropriate and of high quality. The faculty are experts in the domain, and it is appropriate for them to assess the appropriateness and quality of a creative outcome within the context of the curriculum.

A final way that creativity within the PME environment can be assessed is through student feedback. The Joint Chiefs of Staff have specifically stated, "as an element of their assessment plan, each JPME program will periodically survey stakeholders and graduates to assess the performance of their JPME graduates and identify gaps in program outcomes" (CJCS 2020, A-7). Feedback from graduates can come from various forms of data such as surveys or interviews. This feedback provides the perceptions of learners as it relates to creative development within PME.

<center>Perceptions of Creativity in Professional Military Education</center>

Scholars have conducted studies on creativity within PME. In a study by Brian Gouker (2003), then a student at the USAWC, a small sample of USAWC students were given two creative thinking surveys consisting of various problems requiring solution. Upon completion of the surveys, participants reviewed the results, realizing where their analysis of the problem went wrong. Their own hinderance in thinking was clear, which revealed that senior leaders have the potential to transform their thinking and come up with creative ideas. Alper Kayaalp (2018) collected self-report surveys from 195 male students who graduated from a military academic program in Turkey. Kayaalyp asked participants about their creativity, the behaviors of their leadership, and perceptions on

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innovation within their organizational climate. The author then gave a creativity index to the individual based on answers to questions such as, "I often come up with creative solutions to problems at work" (Kayaalp 2018, 99). The hypotheses in Kayaalp's study focused on the leadership style and the climate of soldiers' work environments. Results showed significant correlation between the participants' self-reported creativity and a transformational leadership style of the supervisor.

A study by Michaelson (2016) examined the academic year 2016 curriculum of the U.S. Army's Command and General Staff Officer Course (CGSOC) for elements of creative thinking. In a qualitative analysis of the curriculum, Michaelson found there was greater emphasis on comprehension over creative thinking. The recommendations posed by Michaelson suggest the CGSOC curriculum define creative thinking and create methods to assess creativity of students. Also, Hitt in 2016 conducted a study asking if the CGSOC fosters creativity within its students. Using the military framework of Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P), the study examined the curriculum for evidence of creative thinking development. While the learning objectives state critical and creative thinking as an outcome, the study found that instruction on these skills was limited.

The studies mentioned above provide insight into the use of creativity within the PME curriculum and creative thinking skills of learners within PME programs. However, what is missing is an account of how faculty perceive creative development when teaching PME curriculum. Through the words and experiences of faculty, a deeper understanding of PME's role in developing creativity in military leaders can accomplished.

<center>Case Study Approach to Examining Creativity</center>

Qualitative research uses assumptions and theory to "research problems inquiring into the meaning individuals or groups ascribe to a social or human problem" (Creswell 2007, 37). With the researcher as the key instrument, the experiences and meaning participants give to the study's problem provide a rich source to understand a complex phenomenon, making a qualitative design an appropriate approach to examining the development of creativity from the student perspective.

One form of qualitative research design is the case study. The case study is more a determination of what is to be studied rather than how, as the issues are "complex, situated, problematic relationships" (Stake 2000, 441). The selection of the case is important in ensuring the phenomenon of remains central to the study. Bounding the context of the case determine what will and will not be studied (Stake 2000; Yin 2009; Miles, Huberman, and Saldaña 2014). Cases can be bound by things such as a role, an event, or an environment that become further bounded by the study sample. For this study, the phenomenon was creativity. The case was bound by location within the USAWC with further bounding of an academic year and faculty position. This bounding ensured that the faculty experienced the same curriculum and were referencing that curriculum during the study.

The use of case study presents some limitations. First, the data is not generalizable. The lived experiences of the study participants cannot be used to make sweeping statements about the experiences of all USAWC faculty or about the development of creativity for all within PME. The second limitation is the inability to generalize which can lead to issues with data credibility. Therefore, it is important to

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triangulate data from various sources. This study used interviews, the USAWC curriculum, and the literature to ensure data credibility and reliability.

Summary

Literature established the relevance of the study in this chapter. Creativity is an important skill that members of the military must possess. Creativity and creative thinking permeate Army doctrine as a skill that can be developed (HQDA 2019e). Senior level PME, which is the USAWC, relies less on experiential learning (Kolb 1984) and focuses on transformative learning (Mezirow 1997) through the use of cognitively complex problems. Creativity starts with an individual and how he or she interacts with the environment (Henriksen, Mishra, and Fisser 2016). Supportive leaders in an environment allow for increased creative development (Kayaalp 2018).

Within the learning environment, faculty are experts and therefore able to determine creative output of students. There are three elements of creative assessment that must be meaningfully aligned to provide validation of creative products (Pelligrino 2014). Previous studies examining creativity in PME did not examine the faculty's view of creative development. Faculty at the USAWC assess creativity of their students. It is not well known how the faculty perceives the curriculum's ability to develop creative skills in attendees. The methods that were used to gather the pedagogical practices and perceptions of faculty in reference to creative development within the USAWC curriculum follow in the next chapter.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

USAWC faculty's pedagogical practices supporting students' creative development, faculty evaluation methods for determining creative output of students, and faculty perceptions of creativity within PME are not yet known from the perspective of a bounded group. The methodology for this study is a bounded case study. Greater detail of the case, data collection, and analysis methods to answer each of the study's questions comprise this chapter. The chapter begins with a restating of the research questions. Then, the methods employed to answer each of the questions, to include data analysis, are given. Three major themes emerged in the data: faculty setting the conditions for creativity to take place, faculty recognition of creativity, and faculty's overall impression of creativity.

Research Questions

This study's primary research question asked, how do the faculty at the United States Army War College describe creativity in the program curriculum?

The study's secondary questions asked:

1. How does the curriculum currently emphasize creativity?

2. How does the curriculum content need to change to increase emphasis on creativity?

3. How does the curriculum currently assess creativity?

4. How does the assessment of creativity need to change?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?

Methods

The Case

As discussed in chapters 1 and 2, the USAWC is the senior level of PME. It is at the USAWC that students focus heavily on the joint aspects of the military at a strategic level. Given the expectation that Joint PME develop creative skills in its attendees (JCS 2020), the USAWC was the primary environment under analysis for this case study. Golafshani (2003) described the naturalistic approach of qualitative research as one that looks to understand a context of a real-world setting. The case was bound by the participants and their experience with the USAWC curriculum.

For this study, the population comprised of educators who teach courses at the USAWC with determined parameters that made the participants a bounded system. The target population for this study was faculty who currently teach in the USAWC resident course. The case study is not only bound by program position within USAWC, but also the mode of course delivery. Selecting participants from the current academic year ensured the curriculum they referenced during the interviews was identical. There were ten faculty who initially volunteered to participate in the study. After all interview coordination was complete, this study had seven total participants. All participants were male, with 86% stating they teach in both the core program and electives. Over half (57%) reported currently working within the Department of Command, Leadership, and Management. No participants reported working in the Department of National Security and Strategy.

This study was about individuals and their experiences with the USAWC curriculum. Therefore, purposive, non-random sampling was used (Miles, Huberman, and Saldaña 2014). The participants were deliberately selected because of their unique characteristics. After receiving approval from the CGSOC Human Protections Review Officer and the USAWC to interview its faculty, solicitation for participation occurred via electronic communication.

Data Collection Procedures

Review of the Literature

Data collection began with a review of the literature. The use of literature informed the researcher and the reader to what is already known about creativity and how that knowledge relates to this study. Culling of electronic databases took place to extrapolate information in regard to creativity, how creativity is developed and measured, general views on creativity within the military, and more specifically what is known about creativity within PME. Blending of canonical works from academics within education, education psychology, and learning science with more recent publications assisted in answering the study's questions as what is already known is examined alongside this study's data.

Review of the Curriculum

The study's sub-questions on how the current curriculum emphasized and assessed creativity were answered with a review of the curriculum as told by the participants. Course objectives, assignments, and rubrics were reviewed orally. The curriculum review provided evidence of levels of creativity discussed in chapter 2, ways

creativity was asked for, expressed, and assessed. This study did not conduct a formal curriculum analysis, rather the discussion about the curriculum was used to compare and contrast the data collected during participant interviews against the literature.

<u>Semi-Structured Interview</u>

In its simplest form, interviews are a type of inquiry. Irving Seidman (2019) states, "at the root of in-depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience" (9). The explicit perceptions of the participant's experiences with the USAWC curriculum make interviews a better method as compared to surveys. Surveys do not allow for the participant to express their experience in their own words. The researcher shapes the participant response through survey design. Interviews provide data through words, nonverbal expressions, body language, or pauses. The exchange between the interviewer and the participant allows the researcher to examine a deeper meaning through probing questions.

The semi-structured interview was the primary method of data collection. The interview process consisted of obtaining verbal consent for audio recording, preparing the interview site for privacy and the elimination of interruptions. The interviews took place via the web-based platforms of Microsoft Teams® and Zoom. The researcher used the interview data to answer the study's sub-questions pertaining to faculty's perceptions of creativity within the USAWC's curriculum. The semi-structured interview began with a broad statement asking participants to discuss the course they currently teach. Next, participants described a time they witnessed creativity within their classroom. From there, participants discussed the ways in which the current curriculum emphasizes

creativity, how they assess for creativity, and overall perceptions of the USAWC

curriculum's ability to foster creative development in its students (see Appendix A for the

interview protocol). From the participant's answers, asking of further probing questions

took place. A structured interview would not allow for probing questions and may not

allow for the participant's experience to come through in the data.

Data Analysis of Interviews

<u>Analytic Framework</u>

This study sought to find how USAWC faculty describe creativity within the

USAWC curriculum. To provide initial direction in data analysis, Henriksen, Mishra, and

Fisser's model of Individual-Field-Domain (2016) was used as a guide to begin

conceptualizing the data (see figure 3). The model begins to shape not only how to

examine creativity's manifestation within the USAWC's curriculum, but also a more

systemic view of where creativity may show itself.
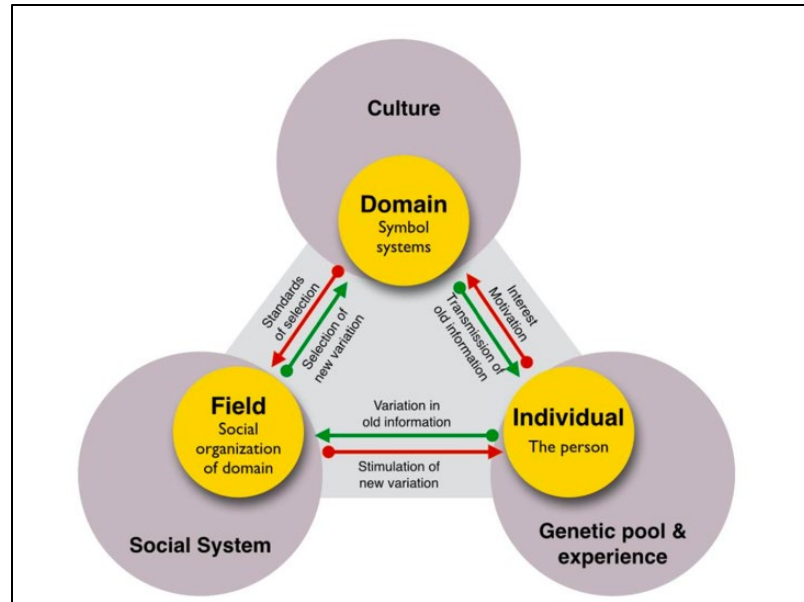
Figure 3.   Interaction between Individual-Field-Domain for Creativity

Source: Henriksen, Mishra, and Fisser 2016, 30.

The data were transcribed in full so as not to insert bias. The risk of premature decision making could be made if only certain parts of the interview were transcribed (Seidman 2019). After transcription the interviews were initially coded by hand before using MAXQDA 2020, a digital coding software, for further analysis. The codes used in this study are discussed below.

<u>Coding Scheme</u>

Coding is appropriate for research questions that ask "how." Saldaña (2016) states, "these types of questions suggest the exploration of participant actions/processes and perceptions found within the data" (70). Asking how a participant views a phenomenon allows the researcher to conduct various levels of coding. First, the

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interviews were read, and a form of precoding took place, allowing for the highlighting of key passages that stood out (Saldaña and Omasta 2018).

The interviews then went through three rounds of coding: provisional, structured, and pattern. From the pattern codes, theming of the data occurred. Provisional coding began with codes pre-determined from the review of the literature (Saldaña 2016). Breaking down the data into provisional codes allowed for closer examination (Charmaz 2014; Saldaña 2016; Saldaña and Omasta 2018). Table 2 provides the provisional coding scheme.

Table 2.   Provisional Coding Scheme

Category	Initial Code Name	Code	Description
Curriculum	Social system-War College	SS-WC	Mention of War College curriculum; courses; duration; assignments; projects; teaching
Assessment	Individual-Student	IND-S	Mention of student ability; student products; grades;
Assessment	Individual-Faculty	IND-F	Mention of faculty ability; rubrics; tests; criteria for creativity
Perceptions	Domain-Army	DOM-ARMY	Mention of Army jobs, roles outside of the War College; being in the Army; Army leadership

Source: Created by author.

The initial categories were in support of the study's secondary research questions. Linking the categories to the theoretical framework started the coding process. The code SS-WC applied when the participant discussed items pertaining to the curriculum such as courses, duration of the class or program, how they teach, and any projects or

assignments given during their course. This code recognized the USAWC as the social system within the framework. Individuals, students, and faculty were also part of the theoretical framework. The use of the code IND-S applied when the participant spoke of students and IND-F when they spoke about themselves or other faculty members. The codes related to abilities, products, grades, or criteria for creativity. The last category, perceptions, links to the framework as the broader domain of the Army is considered within the data. The utilization of the code DOM-ARMY correlated to participants' talk of the Army or being in the Army, the jobs or roles students may have, or of Army leadership. Figure 4 provides examples of the provision coding using the qualitative data software, MAXQDA 2020.
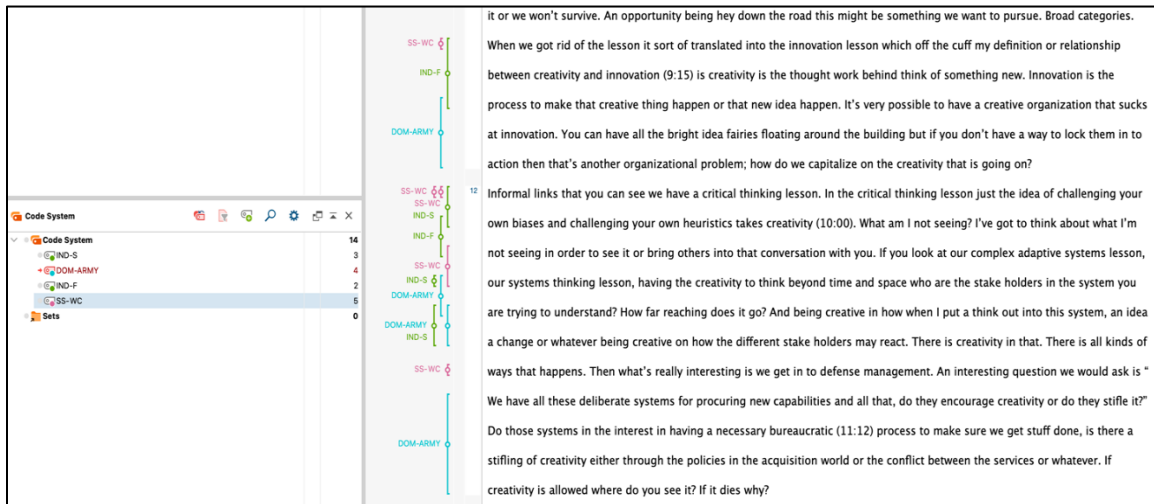
Figure 4.   Example of Provisional Coding Using MAXQDA 2020

Source: Created by author.

Next, the data went through structural coding with the aim to answer specific research questions (Saldaña 2016). Concurrently, pattern coding took place. Pattern

coding as a second cycle coding method is useful in "developing major themes from the data" (Saldaña 2016, 296). Figure 5 shows how structural and pattern codes were applied to the segment of data from figure 4.
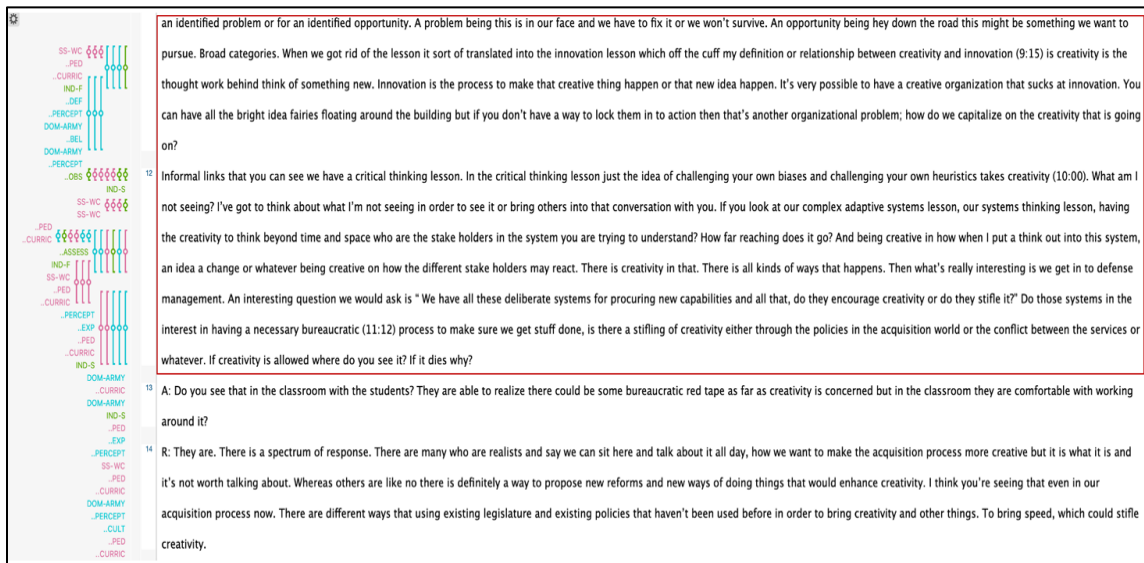
Figure 5.　Example of Structural and Pattern Coding for a Segment of Data
Source: Created by author.

Secondary research questions 1 and 2 relate to the USAWC's emphasis on creativity in the curriculum. Table 3 provides the structural code and pattern codes for secondary research questions 1 and 2, and also how the codes link to the analytical framework.

Table 3.   Structural and Pattern Codes for Secondary Questions 1 and 2

Structural code: Pedagogical Practices (PED)	
Pattern codes	**Interpretive Summary**
Teaching methods (TEACH)	TEACHING METHODS are actions in the classroom, models, theories, frameworks, assignments, interactions with or between students linked to SOCIAL SYSTEM
Curriculum (CURRIC)	CURRICULUM is courses, classes, schedule, lessons linked to the SOCIAL SYSTEM

Source: Created by author.

The structural code applied for secondary questions 1 and 2 was pedagogical practices (PED). Interviews were coded for evidence of teaching from faculty. Next, I took the data coded with PED and noted the patterns of teaching methods (TEACH) and curriculum (CURRIC). When participants spoke about models, theories, frameworks used in the classroom, along with any assignments or projects given, the teaching methods code applied. When participants spoke specifically about the courses, classes, schedule, or lessons, the use of the curriculum code occurred.

Structural and pattern coding took place for secondary questions 3 and 4 (see table 4).

Table 4.   Structural and Pattern Codes for Secondary Questions 3 and 4

Structural code: Assessment Practices (ASSESS)	
Pattern codes	**Interpretive Summary**
Evaluation (EVAL)	EVALUATION is criteria used to determine creativity; judgment; assessment linked to INDIVIDUAL
Observation (OBS)	OBSERVATION is the result of creative thoughts or actions; witnessed changes in student, student thinking; changes in faculty or faculty thinking; outcomes of projects, assignments linked to INDIVIDUAL

Source: Created by author.

Secondary research questions 3 and 4 related to the assessment of creativity within the USAWC curriculum. The structural code applied to secondary questions 3 and 4 was assessment practices (ASSESS). Evidence of the ways in which faculty discussed the assessment of creativity within the curriculum appeared, which resulted in further pattern coding for evaluation (EVAL) and observation (OBS). The code for evaluation applied when the participant discussed the criteria they or the USAWC used to determine creativity of students or the work of students, as well as creativity of the faculty. The observation code related when participants mentioned the results or outcomes of student or faculty creativity, or any witnessed changes in student or faculty thinking as a result of the curriculum.

Again, structural and pattern coding was done for secondary question 5, which related to faculty perceptions of creativity (see table 5).

Table 5.   Structural and Pattern Codes for Secondary Question 5

Structural code: Perceptions of Creativity (PERCEPT)	
Pattern codes	Interpretive Summary
Expectation (EXP)	EXPECTATION is what would or could be true for the future; what students should achieve; what USAWC should provide linked to DOMAIN
Belief (BEL)	BELIEF is regarded as true; opinion as it relates curriculum, assessment, USAWC, or the Army linked to DOMAIN
Culture (CULT)	CULTURE is the attitude, behavior, characteristics of people, institutions, or military linked to DOMAIN
Definition (DEF)	DEFINITION is how participant the defines creativity linked to DOMAIN

Source: Created by author.

The structural code applied to the data was perception of creativity (PERCEPT).

Utilization of this code took place when faculty discussed how they felt about creativity

in any area or setting. Four pattern codes were created from the PERCEPT data. The

codes are expectation, belief, culture, and definition. The use of the expectation code

showed data discussing expectations of students, faculty, or the USAWC. The Beliefs

code related to participants stated something they regarded as true or an opinion relating

to the curriculum, assessment, the USAWC, or the Army in general. The code for culture

described data focusing on the participants' discussion of attitudes, behaviors,

characteristics of USAWC or the military in general. Finally, the code for definition

applied when participants explicitly or implicitly provided their own definition of

creativity.

Finally, data were put into themes that overarch the patterns in the data (Charmaz 2014; Saldaña 2016; Saldaña and Omasta 2018). From the pattern coding, three major themes were found: faculty setting the conditions for creativity to take place, faculty recognition of creativity, and faculty's overall impression of creativity. These themes will be discussed in greater detail in chapters 4 and 5.

Reflexivity, Reliability, Validity

In qualitative research, the researcher is the primary instrument. My own life experiences, academic background, and knowledge played a role in how I read the literature, determined what was important, and the judgment used to make meaning of the data. Throughout the research process, I was aware of my own biases and ensured they did not impede the meaning of the participants. As data analysis took place, reconnection with participants in the form of member checks (Creswell, 2007) ensured appropriate representation of their experiences within the context of this study. The first member check took place after interview transcription, and the second occurred after drafting chapter 4. Responses to the member checks were favorable. To increase reliability and validity the literature, curriculum, and interviews were used for data triangulation. Triangulation is using multiple data sources to "corroborate" findings (Miles, Huberman, and Saldaña 2014, 299).

Limitations of the Design

As mentioned earlier in this thesis, the time to complete the study placed constraints on the design. The number of participants were limited in order to complete

data collection and analysis. Qualitative work may have led the participants to say what they believed I wanted to hear instead of the truth.

Ethical Assurances

Participation in this study was voluntary and could cease at any time. All participants provided consent for their participation and for audio recording of interviews. Anonymity of the participants was of utmost importance (DoD 2020). Participants have been assigned a number. The master list of number and participant match are kept in a password protected file. Participant responses have been shared in aggregate so as not to easily identify a participant. With the assurance of anonymity, permission to use direct quotes in context has been given by participants. Audio recordings were deleted upon completion of transcription. However, de-identified audio transcripts will be held for three years after study completion; then they will be destroyed. Interview transcripts were shared with committee members only when necessary and were stored on a password-protected device. The risk to participants was low for this study. Feelings of unease or frustration may have surfaced depending on participants' experiences with creativity in the classroom.

Summary

To examine the pedagogical practices of USAWC faculty when developing student's creativity, this study used a bounded case study methodology. Data triangulation occurred through the use of literature, analysis of the USAWC curriculum, and semi-structured interviews with faculty of the USAWC. The interviews went through three rounds of coding to resulting in the major themes of setting the conditions,

recognition, and impression. The next chapter, chapter 4, provides the results for each

study question.

CHAPTER 4

ANALYSIS

To begin examining the ways in which USAWC faculty describe creativity within the curriculum, the study's research questions focused on the curriculum itself, assessment practices, and the overall perceptions of faculty. The coding scheme applied to the data was introduced in chapter 3. In this chapter, the presentation of analyzed results take place. Results are organized within the categories used for provisional coding (Curriculum, Assessment, and Perceptions), and support the study's research questions.

Research Questions

This study's primary research question asked, how do the faculty at the United States Army War College describe creativity in the program curriculum?

The study's secondary questions asked:

1. How does the curriculum currently emphasize creativity?

2. How does the curriculum content need to change to increase emphasis on creativity?

3. How does the curriculum currently assess creativity?

4. How does the assessment of creativity need to change?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?

Methodology

From the semi-structured interviews, I analyzed data from the study's seven participants. All questions reached saturation, defined in this study as at least four

participants stating similar answers during the semi-structured interview, within the first five interviews. Further conduct of two additional interviews occurred to ensure there were no new concepts or themes discussed by participants. Using the categories from the provisional coding scheme discussed in chapter 3 (see table 6), the results are presented categorically in the remainder of this chapter.

Table 6.   Provisional Coding Scheme

Category	Initial Code Name	Code	Description
Curriculum	Social system-War College	SS-WC	Mention of War College curriculum; courses; duration; assignments; projects; teaching
Assessment	Individual-Student	IND-S	Mention of student ability; student products; grades;
Assessment	Individual-Faculty	IND-F	Mention of faculty ability; rubrics; tests; criteria for creativity
Perceptions	Domain-Army	DOM-ARMY	Mention of Army jobs, roles outside of the War College; being in the Army; Army leadership

Source: Created by author.

Findings

Defining Creativity

This study's definition of creativity was "a higher-order ability that is manifested in a creative outcome (e.g., product, performance, idea, or solution) that is novel, appropriate, and of high quality" (Hong 2014, 205). It is important to share, upfront, the ways in which the study's participants define creativity. In doing so, the reader has a

frame of reference to better understand the participants answers discussed throughout the remainder of this chapter. Participants were not asked to define what creativity means to them, nor were they given the definition of creativity used for this study, yet each participant defined creativity in their own way.

Participants expressed challenges with how creativity is defined with statements such as "the challenge that we have with faculty and PME guidelines is how we define creativity" and "many times it's seen as frivolous waste of time and not purposeful." Each participant gave their definition of creativity at some point during the interview, often starting with statements such as, "I guess it depends on how you define it" or "this immediately gets to into the question of what are we talking about?"

The participants' definitions of creativity centered around two concepts: creativity as problem solving and creativity as a change in thinking. Table 7 provides the ways in which participants spoke of creativity as problem solving.

Table 7.   Creativity as Problem Solving

Problem Solving
"We have some really creative people in the Army, from Private to 4-star General, but the creativity tends to be 'how do I solve this problem?' Problem solving sort of creativity, which is creativity."
"Understand it's about solving and addressing problems in different ways that creates value, not just for you but for the folks around you in groups and teams and the institutions and organization that you serve."
"Creativity has a very diverse manifestation. It's not always about music or dance or art, it's about solving problems that have value to other people in the process."
"Creativity and innovation need to be married, but separate. One speaks to the development of the ideas and one speaks to the execution of the ideas."

Source: Created by author.

Table 8 shows how participants defined creativity as changes in student thinking.

Table 8.   Creativity as a Change in Student Thinking

Change in Thinking
"Not everyone calls it creative but I think they mean the same thing, novel approaches. It's whatever happens after you break down what you thought was true; which is that natural cusp between operational knowledge and strategic thinking...so you have to know the right questions to ask, building good teams, unique approaches. Used to be called outside-the-box-thinking, that's all creative."
"The essence of creativity is opening the aperture, begin divergent, gather other points of view, and then at some point converging to some type of conclusion or judgement that proves value to someone else in the process."
"That can be called creative thinking if you're breaking out of your well-worn grooves of how you normally think, and think a little bit differently."
"Creativity and critical thinking are two sides of the same coin. We will try to partition and say this is about critical thinking and this is about creative thinking; you can't do one without the other. You're going to converge and diverge."

Source: Created by author.

While the definitions given by participants may not completely mirror Hong's (2014) definition used for this study, elements such as novelty and appropriateness permeate the responses. Because of the unique nature of participant responses, all participant definitions have been included in the above tables, even though they do not meet the author's intent for data saturation.

It is important to note that the participants used the words "creativity" and "creative thinking" interchangeably. One participant stated, "Is creativity and creative thinking the same thing? Of course the answer is really no, but there is enough overlap that we were able to leverage that." Therefore, some quotations throughout this chapter may use the term creative thinking to highlight a participant response. The synonymous use of creativity and creative thinking is consistent with the discussions in some literature within the creativity discipline (Hong 2014).

Curriculum

Current Curricular Emphasis of Creativity

Secondary research questions 1 and 2 focused on the curriculum. More specifically, how the curriculum currently emphasizes creativity and whether or not the faculty think the emphasis on creativity needs to change. Overall, this study found that creativity is emphasized in the USAWC curriculum more through the pedagogical practices of individual faculty than through the base curriculum. Participants agreed that there are topics that do not lend themselves to creativity, yet faculty can still foster an environment where creativity is valued. All participants agreed that the curriculum needs to change to increase emphasis on creativity. Participant responses indicated the primary

ways in which to increase creativity's emphasis in the curriculum are through the inclusion of the creative thinking module and explicitly placing value on creativity.

Within the USAWC, there are three departments responsible for the core curriculum: the Department of Military Strategy, Planning and Operations (DMSPO), the Department of Command, Leadership, and Management (DCLM), and the Department of National Security and Strategy (DNSS). To understand better the frames of reference participants would use throughout the interview, each interview began with participants describing the course or courses they are teaching this academic year. The participants current instruction cover a wide range of topics from strategic leadership, to defense management, more theoretical aspects of war and strategy, and personal and organizational communication.

After hearing about the courses taught, the interviews began to focus on the study's secondary research questions. Throughout the interviews, the ways in which creativity manifests within the USAWC were consistently talked about through the curriculum itself and the pedagogical practices of the faculty within the college. Table 9 explains the pattern codes found in the data. The table also shows how those codes have been defined and linked to the analytic framework, along with examples from the interviews to support the codes.

Table 9.   Pattern Codes for Curriculum

Pattern Codes	Supporting Data	Interpretive Summary
Curriculum (CURRIC)	"In there we have a lesson on creativity, it used to be its own lesson by itself but there is always pressure about how many lessons, how many hours. It got smushed together with the vision. Creativity and vision, which is fine because they are related." "We sort of talk around creativity but also at the same time put in the context of the department of defense bureaucratizes innovation, we don't talk about the skills. We more or less talk about the process and the output as the main focus." "We end up looking at organizational culture and the responsibility of leaders to foster creativity and innovation within an organization...I work it from the individual level to the institutional level in terms of the obligation of leadership."	CURRICULUM is courses, classes, schedule, lessons linked to the SOCIAL SYSTEM
Teaching methods (TEACH)	"I think we have to expose them to different points of view but also different information, and we have to be willing to accept that everything is not neat, squared-off, dress right dress in a box in terms of policy and strategy...show them there is a lot of complexity...and that complexity requires a different set of skills. One of which becomes strategic thinking, specifically creative thinking in the process." "We'll go through the Socratic dialogue which is a favorite method here." "Giving students an opportunity to express latent creativity they already have." "Toward the middle of the year courses tend to lend themselves to getting the students to solve real-world issues from which creativity is not necessarily rewarded...wargaming exercises, the crisis response exercises, the creativity is sucked in to whatever defines what the crisis is."	TEACHING METHODS are actions in the classroom, models, theories, frameworks, assignments, interactions with or between students linked to SOCIAL SYSTEM

Source: Created by author.

Curriculum

The USAWC's academic year begins in June and end the following August.

Within this timespan, students follow a predetermined core curriculum within a seminar

group consisting of sixteen students. The curriculum is described by one participant as: "a

pretty prescribed core that has some tweaks around the edges, but it is twenty-five seminars doing Socratic dialogue on the area of expertise that has been agreed upon by the three departments. They cover war and conflict generally, war and conflict in American context, cultural competencies and regional studies, and then electives." In the words of a study participant, the USAWC's "mission is about developing strategic leaders and ideas that provide value to the joint force and the nation." To further emphasize the strategic mindedness of the USAWC student body, another participant stated, "We're not simply a liberal arts program, we're training practitioners . . . science or scholarship is a vocation, its training. Until we confront that fact, we aren't going to the skills, which is a skill of creativity."

When asked how the curriculum currently emphasizes creativity, the commonalities across interviews centered around three areas: (1) creativity is discussed when thinking about curriculum revision, (2) the module for creative thinking was removed during the last curricular revision, and (3) time is a big factor in determining what is included in the curriculum. These three areas are illustrated in the following paragraphs.

Curricular revisions must take into consideration the USAWC purpose and the expectations placed upon its graduates, which was made evident throughout the interviews. One participant comment incorporated the purpose and expectations quite well, he stated, "It gets back to what's the purpose of the War College. We do on the one hand want to be able to elevate the students to the strategic level and have a graduate conversation. On the other hand we ultimately are judged based on what our students deliver to the field immediately." Curriculum revision occurs through committees within

the USAWC, and study participants acknowledged that these committees do talk about creativity. A participant noted, "When it comes to the committees devoted to evaluating the existing strengths and the opportunities for improvement in the curriculum, which does involve conversations about things that we say we do or want to do, [they talk of things] like critical and creative thinking."

All participants discussed the Strategic Leadership course in the USAWC curriculum. In years past, a lesson on creative thinking introduced the concept to students early in their time at the USAWC. A participant from the DCLM stated that the Strategic Leadership course, "start[s] out with four to five lessons on thinking. Different ways of thinking, strategic thinking, systems thinking, critical thinking. It used to be we had a lesson on creative thinking. There is an innovation lesson, which sort of absorbed the creative thinking stuff. But the topic in earnest is no longer its own lesson." When asking one participant if he sees a connection between creative, critical, and systems thinking he responded, "Absolutely and it's built into our strategic thinking framework. They are applied in parallel . . . the strategic thinking framework is deeply embedded."

Another participant succinctly summarized what was heard across the interviews in terms of the insertion and deletion of the creative thinking lesson within the USAWC curriculum. He notes, "We've gone through the process of having in our cognitive portion of our strategic leadership course as a separate lesson in creativity, a combined lesson in creativity and self-awareness, a combined lesson in creativity and systems thinking, a combined lesson in creativity and innovative thinking." Discussing innovation is a way participants infuse their curriculum with the concept of creativity. In the words of a participant,

Creative thinking is actually not even included in this at all. For those of us who do value the importance of creative thinking, we sort of buried it into other things. For example, innovation. We introduce innovation in the strategic leadership course . . . we sort of talk around creativity . . . we don't talk about the skills, we more or less talk about the process and output as the main focus.

When asked about the removal of the creative thinking lesson, or the lack of focus on creativity in general, every participant brought up the issue of time by saying things such as, "real estate, time real estate. Something had to fall off and so it was the low hanging fruit." A participant noted that, "There's only ten months in the curriculum . . . An average War College year is 307 days total from the time the student shows up and the time they start leaving. What do you pack in to 307 days becomes a big question." Other participants had similar views. One stated, "Just about anything that we try to introduce into the curriculum runs up against that zero-sum time game. What's going to come off? Anything that we take off the plate has a negative impact on the students' preparedness for their future assignments."

Although creativity may have been formally removed from courses such as Strategic Leadership, faculty continue to introduce and discuss creativity. A participant stated that he, "still bring[s] back one of the creativity readings and have one of the students give a presentation and get the conversation going about that. Just to get us to that diamond idea, we are expanding our horizons and it comes back in the innovation lesson to nail it home." Throughout the interviews, it was clear that the faculty is fostering creativity within their classrooms.

Teaching Methods

When it comes to pedagogical practices, the majority of the faculty interviewed spoke of creativity as a skill through comments such as, "I think it [creativity] fits better

into a skill than knowledge, it's a way of thinking. It's a habit of mind." They also discussed how creativity is given space within their learning environments by: (1) creating an environment that welcomes creativity, (2) using Socratic dialogue, and (3) encouraging collaboration.

Being in a learning environment is an advantage to allowing students to exercise creativity. It was noted that the school environment affords student the "comfort level and cognitive freedom" to accept a faculty's "push and nudge, just enough leverage to get someone to fall into creativity or fall into the dynamics of being open." The majority of participants also spoke of "setting the climate" and "developing a psychologically safe environment" which allow students to verbalize creative ideas and to potentially "have a vulnerable thought."

One participant stated, "if you create the right conditions, I see [creativity] at the beginning of the course, so yes I would also see it at the end of the course. It's more about how you are structuring your course?" Thinking about how courses are structured, a participant said, "One of my obligations as a faculty member is to shake the foundation of what our students so firmly believe in." Similar thoughts were shared by other participants. The stage was set for students to challenge their assumptions through use of repetition, feedback, theories, and models. When asked if they noticed a change in students' thinking from the beginning of a course compared to the end of a course, all participants replied a noticeable difference.

At the graduate level, courses are more about discussion than direct teaching. A participant thought that, "At the War College it's more about how we facilitate the conversation and discourse than about being an expert in processes that change or in a

strategic policy realm that there are very few right answers." Similar sentiments were

noted by participants as all discussed the use of Socratic dialogue to "expose them

[students] to different points of view but also different information. And then we have to

be willing to accept that everything is not neat, squared-off, dress right dress in a box in

terms of policy and strategy." The Socratic method also gives students an opportunity to

think about "disparate concepts and put them together and try to produce something

new." While the majority believe that the Socratic method of generating dialogue is

helpful in fostering a creative environment, one participant had dissent. He stated,

> Dislodge the Socratic dialogue and put in place of it as a central experience of a
> PME student the application exercise. Now the application entails research, causal
> analysis, normative reasoning, what ends should we pick? . . . Could you imagine
> training good chess plays to do chess strategy by talking about it with Socratic
> dialogue? You would get really smart people who would go "well the theory for
> the king's pawn opening is this", they could talk it.

In addition to Socratic method, all participants spoke of collaboration as a way to

get creativity into their classrooms and assist students with changing their frames of

thinking and challenging assumptions. Collaboration is a noted strength in USAWC

classrooms from a participant, "I have a bunch of C's in the mix. Communication is one

of them, but collaboration we're strong on. We want critique to be in there. We call it the

art of critique . . . Creativity is in there, but not as explicit." One participant linked

creativity and collaboration by saying, "Creativity entails mastering that body of

knowledge and then presenting them with real world problems . . . they can now

collaboratively dig into a problem, do research, and then role play and create a strategy

meant to address real world problems."

The real world was also discussed when thinking about fostering creativity

outside of the academic environment, "in the War College they give you a set of ivory

tower sort of models, you've got this alabaster palace on Carlisle Barracks, you've got

this safe room here in our presence; what about these key things can you take with you,

extract, apply when you leave?" Working, planning, and thinking in a siloed manner was

mentioned frequently in the interviews. A participant expressed that the classroom is a

place where,

> The big picture in creative thinking was presenting to the student the idea that speed, urgency, impatience tend to drive us down a traditional stovepipe of exploration ideas . . . creative thinking needs to be something where you actively engage your brain and your organization to deliberately identify that you might be in a stovepipe and how do you diverge away from that to create creative space in your brain knowing that eventually you are going to have to converge back to a solution.

Increasing Curricular Emphasis on Creativity

When participants were asked how the curriculum could increase its emphasis on

creativity, there were two main solutions. The first solution was to put the creative

thinking lesson back into the curriculum. Many stated things such as, "I firmly believe we

had a loss when we got rid of that lesson" and "it would be nice to put the creative

thinking lesson back in early in the year just so people have more confidence in the

tools." Participants view the lesson as a way for students to build a foundation in

thinking. A participant said, "I would put the creative thinking lesson back in the strategic

leadership course . . . I think before you start doing systems thinking and some of the

other thinking in time, I don't think it's a bad idea to talk about being creative."

The lesson in creative thinking has been expressed as a tool for students to use

both in and out of the classroom. While some felt that creativity is not the most important

topic within the USAWC curriculum, all thought it was valuable. Even without a formal

lesson, the faculty's continued effort to incorporate creativity is viewed as important. A

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participant stated, "I think it's more about were you given the adequate opportunity and I see the opportunities there and there. But I think that not yet being systemic or concerted about the effort to have the whole experience result in that outcome. Probably because it's not in bold in the right part of the documents that we've been talking about, it's just sprinkled throughout."

The second way the participants believe creativity can be emphasized in the curriculum is through explicit emphasis of creativity in the Officer Professional Military Education Policy (OPMEP). As one participant noted, "if you want creativity then we've got to get it written explicitly into the OPMEP in some way." While most participants think a more precise definition of creativity could be given in the OPMEP, one participant expressed, "if it's [creativity] trying to get somebody to think outside their own perspective, then that is a continuous theme throughout all the courses. It's a declared strategic leader competency, a desired leader attribute from the Joint Chiefs of Staff, from the OPMEP. It's here, it's emphasized, it just may not be called creative thinking."

Even though creativity is happening within the USAWC curriculum, measuring it as an educational outcome is a challenge. Therefore a participant stated, "we found routinely it just sort of falls on to the cutting room floor and we're sort of doing other things as a proxy because we understand, we can teach it from a verbal standpoint. 'You guys need to be more creative,' but what you actually do about it is somewhat elusive." Another participant said, "I don't think you're going to find the word creative development or creative thinking in the vision or mission or even the program learning

outcomes. But you shouldn't graduate from here if you haven't changed how you think about things."

Assessment

Secondary research questions 3 and 4 asked participants to discuss how creativity is assessed within the USAWC and the ways assessment of creativity could change. Results indicate that creativity is not formally assessed within the USAWC. When questioned on the changes to the assessment of creativity that could take place, the majority believe that the assessment of creativity belongs in the strategic leadership evaluation through the use of a rubric and inclusion in the Academic Evaluation Report (AER) or Officer Evaluation Report (OER).

The patterns that emerged in the data show the participants speaking of evaluation not only through official means, but also individual criteria for creative output. Participants also talked of observations they witnessed during periods of student creativity. Table 10 provides the coding scheme used for data concerning assessment of creativity and examples from the data.

Table 10. Pattern Codes for Assessment

Pattern Codes	Supporting Data	Interpretive Summary
Evaluation (EVAL)	"There are different ways that using existing legislature and existing policies that haven't been used before in order to bring creativity and other things, to bring speed which could stifle creativity." "There is no requirement to demonstrate creative thinking." "Originality. You need to say something new."	EVALUATION is criteria used to determine creativity; judgment; assessment linked to INDIVIDUAL
Observation (OBS)	"They are not afraid to engage their brains in a more broad way...it gets you away from how you're seeing the world and maybe look at the world differently." "You continually test those things and build on those frames of reference, refine those frames of reference. You are able to gather new things, discard old things and reconsider some things as you're trying to understand the people or problem at hand."	OBSERVATION is the result of creative thoughts or actions; witnessed changes in student, student thinking; changes in faculty or faculty thinking; outcomes of projects, assignments linked to INDIVIDUAL

Source: Created by author.

Current Assessment of Creativity

During the interviews, participants explained how creativity is assessed within the USAWC. Every participant stated there is no formal evaluation of creativity. After talking about a course rubric, which does not include the assessment of creativity, one participant stated, "It's not [assessed]. There is a rubric, but nowhere in the AER [Academic Evaluation Report] is there a time where you assess the creativity or ask to comment on their creativity . . . but there is no requirement to demonstrate creative thinking."

The challenges and difficulty in measuring creativity of students was discussed in all the interviews. Participants said things such as, "There is thinking happening and

that's the grail; it's hard to measure but we know we want it." Many of the participants spoke of the difficulty in assessing creativity, even when one can define it: "Creativity, I can tell you a definition of it but I can't really evaluate it and I'm not quite sure because it has to have value. It has to have value in the long term." Another common point was that some topics lend themselves to easier evaluation. A participant stated, "critical, systems thinking, historical thinking you can measure those in an output fashion. They are very easy to rubric, and we love our rubrics."

Evaluation

Just because formal evaluation of creativity is formalized within the USAWC does not mean it is not happening. Participants were asked how they evaluate creativity, even without formalized evaluation criteria. The products for assessment consist of written papers, oral communication skills through presentations, and class participation. All participants look for originality when evaluating creativity. Table 11 highlights faculty comments about originality as evaluation criteria.

Table 11. Evaluation Criteria for Originality

Evaluating Originality
"Often in PME we are about understanding and regurgitation and application where we have an answer. We're trying to get to a point now where let's think about things in new ways with new information to come up with some valuable approach or solution to it."
"Demonstrate originality, take a position, take a little risk and put themselves out there."
"Alternate route to problem solving. I might reward someone who did something totally different."
"Originality, you need to say something new . . . You've been thinking enough about what's already been said that you have something to offer that clearly you thought of."
"Thinking outside the box . . . Challenging your own biases and challenging your own heuristics takes creativity."
"Bringing diverse views in."
"There is the part that it may be useful to you, but is it of value to someone else?"

Source: Created by author.

As faculty wrestle with how to measure creativity, a participant talked of the common routine of assessing only what is listed as an educational outcome. His recommendation is to think of the process of learning rather than the outcome, he states, "even I foster this in a way, is to look at educational outcomes as what we assess . . . are you measuring outcomes or are you measuring the process of learning? Creativity cannot be measured in outcomes. You can have a very successful creative approach to something that the outcome looks absolutely ordinary."

Observation

The observation code applied to the data when participants talked of changes they saw in students in terms of creativity over the course of the academic year. Data analysis

indicated that as students progress through the year, they are making connections of

content across the curriculum and pulling in more resources and research while

collaborating. As a result, all participants noted a change in the way students think, which

the participants consider to be creative. Table 12 provides examples of how faculty

participants spoke of observing a student's change in thinking.

Table 12.   Evaluation Criteria for Change in Thinking

Observing a Change in Thinking
"Build on those frames of reference, refine those frames of reference. You are able to gather new things, discard old things, and reconsider some things as you're trying to understand the people or problem at hand."
"We don't want you [the individual student] to give us all the same answers; we're trying to get you to apply these new things in a new way, to see if you understand it as you build your frame of reference."
"The best ones are going to be the ones that take what we learned and apply it in a new way . . . Integrate all the material in a new way that I hadn't seen done before."
"You can't be fixated on what you know. You have to be intellectually curious and then ask questions and try some things and be willing to fail, which is not generally in our lexicon."
"I think where you see creativity is the connection between those concepts. They knew they existed before, but just didn't know the relationships and that making those connections is creativity. It's bounded, but it's creative. "
"They are not afraid to engage their brains in a more broad way . . . It gets you away from how you're seeing the world and maybe look at the world differently. I think they do expand their brain space throughout the year. "
"Seeing things differently, understanding the world differently. Seeing different connections you didn't know before you got here. It's all part of creativity."

Source: Created by author.

Change to Assessment of Creativity

        After discussing the lack of formal evaluation of creativity and how faculty apply

evaluation criteria to student work, participants were asked how they thought the

assessment of creativity could change. All participants believed there needs to be formal

evaluation of creativity for USAWC students. All but one participant spoke of the use of

a rubric, and the majority spoke of using the AER as a way to communicate a student's

creativity.

        When thinking about a formal assessment of creativity, the participants

overwhelmingly spoke of the Strategic Leadership course as the most natural place

because, "there is a strategic thinking component looking at critical, creative, systems

thinking. It's all kind of rolled in." A participant said, "When I hear the word it's almost

always coupled with thinking and it's almost always just accepted that we do strategy, we

do strategic thinking, strategic thinking is in part being critical in what you think you

know and being creative about what you don't know." Adding concepts of creativity to

the Strategic Leadership course rubric was discussed as logical by the majority of

participants. The below statement provides clear reasoning for placing the evaluation of

creativity withing the Strategic Leadership course,

> The place creativity would fall is under the broad category of strategic thinking.
> We do assess that holistically. The problem with the Army War College . . . but
> it's basically there is no definition nor a solid rubric process to assess to say you
> are good at strategic thinking . . . it would be a line within the strategic thinking
> broad category there are all little parts of it and you can be great at some and not
> so great at others, but if you're great at all then you're a great strategic thinker.

        The use of rubrics was a discussion point in every interview. A summation of the

common view on why rubrics are important was made by a participant, "it's the way that

assessments are operationalized and the way it's done in a consistent way, which is

important. Fairness is particularly important in PME." The use of the OPMEP and formal learning outcomes are ways participants talked of using a rubric to justify assessing creativity. A participant noted a challenge with using learning outcomes when he stated, "in all our learning outcomes, the highest level we get to is synthesize . . . our learning outcomes don't often have 'create, produce, design'."

Enhancing the use of a rubric was also talked about by using the word "original," which may be part of the base rubric used at USAWC. The participant said, "one of the words that's in there is original. So this is Talmudic, casuistic . . . can I use the word to fit the thing that I want to do? Can I make a defense from the sacred texts of my institution of this new thing I want to try? And originality gives some berth to do that, the word being in there." He then went on to say, "if I want to reward creativity, I can be creative in how I word, write, weigh my rubric and then I'm meeting that intent."

Another way the participants talked of changing the assessment of creativity is through the end of year AER or the annual OER. In terms of the AER each student receives upon completion of the USAWC, it was said,

> That AER now you get blocked based on how you fell out in your rank ordering . . . has been designed to help senior leaders see who their 'best thinkers' are. Well it wouldn't be too hard to add a few things to see who your creationists are, who your innovators may be in that assessment kind of thing. It's a place where maybe you could add a few factors to try to help get after some of that kind of stuff.

Participants viewed the OER in much the same way with feeling that creativity as a criterion for promotion can help increase its value outside of the schoolhouse. One participant stated, "Every officer's development is uniquely formed by what gets promoted. So if you are going to try to develop creative leaders at the highest level, it has to be reflected in a deliberate way within our OERs."

Perceptions

The final secondary question asked participants their thoughts about the program's ability to develop creativity in its students. This question was asked in order to examine perceptions that were not associated with the curriculum or assessment. There was a risk of not reaching data saturation with this question, however similar perceptions were shared across the majority of interviews. Overall, the Army's culture and expectations of the USAWC and its graduates factor into the faculty's perceptions. All but two participants thought that the USAWC does a good job with developing creativity, especially in terms of problem solving and changing their frames of mind or reference over the course of the academic year as discussed earlier in the chapter. The participants also believed that the Army has creative people, yet the institution does not emphasize or value creativity.

Throughout the interviews, participants spoke of expectations, beliefs, and culture as influencing the ways faculty perceived the USAWC curriculum's ability to develop creativity. Table 13 provides examples of supporting data from the interviews, along with the coding scheme applied to the data. The data were also coded for the participants' definitions of creativity, which are laid out at the beginning of this chapter.

Table 13. Pattern Codes for Faculty Perceptions

Pattern Codes	Supporting Data	Interpretive Summary
Expectation (EXP)	"We still expect our Colonels to create solutions to problems that aren't simply wrote problems that they can apply a set theme to." "We are largely outcome driven because that's in part because what the Army or Joint Community expects of us. They expect us to provide graduates with capabilities and understanding to be able to function in their next environment."	EXPECTATION is what would or could be true for the future; what students should achieve; what USAWC should provide linked to DOMAIN
Belief (BEL)	"There is a tendency to fixate on words, buzzwords. Words are so important because whatever they sign off on that document is what we are going to do." "Waiting until people are senior lieutenant colonels to teach them creative thinking is a little late in the process." "The real thing is if you want creativity, then we've got to get it written explicitly into the OPMEP in some way."	BELIEF is regarded as true; opinion as it relates curriculum, assessment, USAWC, or the Army linked to DOMAIN
Culture (CULT)	"Part of this message is that this isn't a PME problem, this is an institutional problem. The institution has to find ways to de-bureaucratize at least to the point of encouraging the development of creative thinking that is rewarded in the field." "It's all the things we talk about in how to foster creativity that are almost exactly the things that our typical organizational dynamics crush. We move 10,000 miles per hour, there's money issues all the time, it just beats down the creativity."	CULTURE is the attitude, behavior, characteristics of people, institutions, or military linked to DOMAIN
Definition (DEF)	"Novel approaches, it's whatever happens after you break down what you thought was true; which is that natural cusp between operational knowledge and strategic thinking." "My definition or relationship between creativity and innovation is creativity is the thought work behind thinking of something new, innovation is the process to make that creative thing happen or that new idea happen."	DEFINITION is how participant the defines creativity linked to DOMAIN

Source: Created by author.

While the USAWC is a graduate program, a faculty member said, "we don't look at our students in that fashion, we don't look at them as grad students; we look at them as senior practitioners who need some more tools in their toolbox to help with the future."

Each interviewee talked of expectations. The expectations are of not only the USAWC and its need to produce generalists that can function at the most strategic levels of the Army, but also the expectations of the students and faculty. The main focus of expectations was what graduates must do when they leave the schoolhouse.

It was said, "It seems that if you expect Colonels from the War College to leave and they are going to operate at various levels . . . we still expect our Colonels to create solutions to problems that aren't simply rote problems that they can apply a set theme to. In order to do that, they need practice to do it." Many participants realized that the amount of time a student can devote to creative thought while in the schoolhouse is much different than in their work environments.

One participant talked of the responsibility of the faculty and curriculum to help students make strategic decisions, "I get involved with the study of major strategic decisions that shape the force. As far as creativity goes, a lot of that is more on the change and communication side so we do have a responsibility to try to get our students to think creatively to develop their creative thinking skills while here." Also in terms of strategic mindedness, a participant said, a faculty's focus is "on ensuring that the students know how to do that sort of engineering work when they leave. It's a byproduct of the outcome that we expect so it emphasizes critical and systems thinking more than creativity."

According to most participants, another reason that creativity is not emphasized over critical or systems thinking is due to faculty skill. It was said, "In a lot of ways we have not just a creativity problem among students, we have a similar creativity problem among the faculty." It was believed that there is "little understanding of creative thinking" amongst quite a few faculty within the USAWC, and yet they would be expected to facilitate creative thinking. When faculty are hired, it was noted that, "Their [faculty] orientation is heavily on how does the Department of Defense and how do the Services make enterprise decisions about matching strategy and resources. Creativity is not a part of that skillset. Not the way we are talking about creativity in the abstract." This missing skillset in faculty leads to more outcome-driven evaluation over assessing the process of learning.

Culture

The participants talked of the ways creativity can be stifled as a result of the military culture. One participant said,

> Standardization. Uniforms. This idea of a military mind. This is how we think about things, how we do things. Whether or not it provides efficacy in terms of solving the problem is less important than everybody being standardized. Either all right or all wrong, we very much accept being all wrong as long as we are all wrong together; we're thinking the same way.

Stifling of creativity was also noted to occur from things such as the routine of military jobs, being risk averse, relying on doctrine to provide a solution, thinking like senior officers one works for (see table 14).

Table 14. Example of Perception of Military Culture's Impact on Creativity

Military Culture's Impact on Creativity
"Let's face it, sometimes we are really stifled in our normal day to day operational jobs. Creativity is stifled out of fear for sounding like an idiot, out of fear of time or whatever."
"Operationalizing from the document to the practice of education partly takes, this is a Gordian Knot, it takes actually breaking the very culture that makes you beholden to the document to try to do and do not deviate from exactly what you were told."
"They come from a culture where we generally have doctrine and we generally give them a mission set with routine tasks to work on and we know what the right answer is."
"The association between creativity and risk, and the fact that when we are in battle we are definitely ok with risk. In peacetime we are scared to death of it. So that risk averse mentality fights hard and stifles any creativity because there is risk in being creative."
"Organizations have to build that place for failure and innovation. It's ok for pockets of our organization or institutions, but it's not part of the dominant culture."
"The desire to just get an answer, not the most creative or the most critically thought through answer, but I've got to get an answer in front of the boss. I know how he think, so I'm just going to tell him what he wants to hear. You get rewarded for that!"

Source: Created by author.

Participants also spoke about military culture when working to increase the value of creativity, "in short, part of creativity is establishing the right culture . . . at the senior levels, which is who we are talking to or about, so much of this is the longer-term touchy-feely stuff that you can't measure as well." The institution needs to believe that creativity is worth rewarding. "Part of this message is this isn't a PME problem, this is an institutional problem. The institution has to find ways to de-bureaucratize at least to the point of encouraging the development of creative thinking that is rewarded in the field." Similarly, a participant stated, "there is a tendency to fixate on words, buzzwords. Words

are so important because whatever they sign off on that document is what we are going to do. Those are the marching orders."

Beliefs

Participants voiced a concern with thinking about creativity at only the USAWC. One participant said, "Creative thinking in my mind is not something that should be left to the War College it needs to be at all levels of PME" while other participants said inclusion of creative concepts and evaluations of creative ability should happen earlier in an officer's career. As stated earlier, all but two participants believe the USAWC develops student creativity well. One participant summed up the majority of the views by saying, "the curriculum does a great job getting students to think outside the box to think beyond their normal predetermined thought processes."

The two with opposing views stated, "I don't think we're doing a good job with creativity. I think we're doing ok, but I think we can do much better overall." The other participant stated, "We do not do a good enough job exercising creativity. With the OPMEP that's in place and the desired leader attributes, there is focus on culture of results and solving problems. The focus is a bias for action."

The participants believed the Army has creative personnel. Yet, there is a lack of creative output and innovation. The continuous stifling of creativity makes some Soldiers hesitant to show their creative skills. As one participant stated,

> We bring folks into our service, the Army, that have great talent and great diversity, but some folks may be spikey. And they learn when they go through the career in the military to either draw in their spikes or get them broken off. The ones that survive over a number of years have learned coping skills and how to navigate the environment that generally doesn't like creativity.

Another participant offered, "Being creative is hard work, especially if you are going to bring it to fruition . . . two parts to innovation, thinking it through and figuring it out. Then there's the actual how do you bring it to market?" He goes on to say, "You can have all the bright idea fairies floating around the building, but if you don't have a way to lock them in to action then that's another organizational problem. How do we capitalize on the creativity that is going on?" The end result is organizations that are creative, but lacking innovation.

The interviews concluded by asking participants what they would tell the Joint Chiefs of Staff or the TRADOC Commander about creative development in the USAWC. The primary responses involved the need for a clear definition of what is meant by creativity. Participants said things such as, "Senior leaders need to better define what it is you're after when it comes to this word creativity" and "Senior leaders are thinking, 'creativity, I want that! I want more of that!' Well, you've got a lot of it but maybe it's not in the ways you want it and how do we do that?"

<center>Primary Research Question</center>

The study's primary research question asked how do faculty describe creativity in the USAWC curriculum? Overall the data showed three main themes: (1) creativity is described in terms of setting the conditions in the curriculum and the classroom for students to obtain and enhance creative skills, (2) without formal evaluation criteria from the USAWC, faculty are left to recognize creativity in their students, and (3) the overall impression of faculty is that the Army has creative people, but the institution needs to value creativity and find ways for personnel to exhibit creative skills. Participants viewed the USAWC as just one space that helps strategic leaders gain creative skills, which assist

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students in developing their own tools for further creative development outside of the schoolhouse.

Summary

The data analysis of the patterns found in the data from all participant interviews complete this chapter. Results indicate that faculty defined creativity in terms of its function in problem solving and its ability to transform the way students think. Also, in the absence of a formal assessment tool faculty applied criteria to evaluate creativity in student work. Participants also thought the Army has creative personnel, but creativity is not valued. Overall, the participants believed the USAWC curriculum does a good job in developing creativity in students, but there is room for improvement. Further discussion of the results takes place in chapter 5.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to examine how USAWC faculty describe creativity within the USAWC curriculum to better understand creativity's manifestation. The data analysis presented in chapter 4 lays the foundation for the discussion that follows. Throughout this chapter, a discussion of the findings, recommendations, theoretical and practical implications of the research, and concludes with limitations of the study and future research opportunities takes place.

Research Questions

This study's primary research question asked, how do the faculty at the United States Army War College describe creativity in the program curriculum?

The study's secondary questions asked:

1. How does the curriculum currently emphasize creativity?

2. How does the curriculum content need to change to increase emphasis on creativity?

3. How does the curriculum currently assess creativity?

4. How does the assessment of creativity need to change?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?

Discussion of Findings

This section begins with a discussion relating to the definition of creativity directed by the literature and the study's data. Next, the study's main finding is presented.

The discussion then moves to the three major themes found in the data. Overall, data analysis discovered three main themes: (1) creativity is described in terms of setting the conditions in the curriculum and the classroom for students to obtain and enhance creative skills, (2) without formal evaluation criteria from the USAWC, faculty are left to recognize creativity in their students, and (3) the overall impression of faculty is that the Army has creative people, but the institution needs to value creativity and find ways for personnel to exhibit creative skills.

Defining Creativity

In order to focus and design this study, creativity had to be defined. At the outset, Hong's (2014) definition of creativity provided a common frame of reference and shaped the study's protocol questions. To provide focus, this study defined creativity as, "a higher-order ability that is manifested in a creative outcome (e.g., product, performance, idea, or solution) that is novel, appropriate, and of high quality" (Hong 2014, 205). Without knowing the study's definition of creativity, the participants provided their definition, which came through in the interviews. From the data, originality and appropriateness (Page and Thorsteinsson 2017) were the ways in which faculty agreed with Hong's definition. Within the context of an assignment, faculty assessed creativity in terms of being appropriate when the product was of value in the given context.

The participant's definition of creativity differed from Hong's; however, they were similar to other studies within creativity research. The faculty view creativity as a skill and a process that functions more like a tool (Surkova 2012) to enhance a way of thinking. Seeing something differently and applying this new information in a way that differs from previous requires creativity (Lones 2000), following the idea that "creativity

is understood as the highest form of renovation of content" (Surkova 2012, 123). Participants spoke of the application of new information and a change in thinking as a part of creativity in the problem-solving process. Faculty provided the stimuli for creativity's use (Surkova 2012) in the classroom by posing ill-structured problems, which required the activation of prior knowledge and the integration of new knowledge while understanding the appropriate use of doctrine for the context. These are important conditions for creative development (Surkova 2012).

Creative development also assisted in transformative learning. The USAWC students were noted to have changed their perspective on problems, exhibited a willingness to consider alternative points of view, and took risk in the classroom. These actions are ways of developing creative skills and participating in transformative learning (Mezirow 1997). The goal of the creative process is to find solutions to problems, create new ways of doing things or creating new knowledge (Henriksen, Mishra, and Metha 2015). Similarly, Army doctrine describes creative thinking as a new perspective used to examine problems while merging prior and new knowledge into an idea that is useful to the situation (HQDA 2019d). Framing the goal of creativity in this respect, the data indicate the USAWC is successful through faculty and curriculum working in tandem for student transformation.

Main Finding

The study's primary question examined how do faculty describe creativity in the USAWC curriculum. The main finding in this study is creativity is not explicitly emphasized in the USAWC curriculum, which leads to a misalignment between the domain of the Army, the field of faculty experts, and the individual students when it

comes to creativity. Data from this study show that students (the individual) are not sure about taking the risk of creative thought or output, the faculty (the field) in some courses value creativity and apply assessment criteria, and the Army (the domain) says it wants creative and innovative people without defining what that creativity looks like. In terms of creativity, each part of the system has its own interpretations leading to misalignment in what creativity is within the Army.

The connection between the domain, the individual, and the field is important in creative development. The model from Henriksen, Mishra, and Fisser (figure 4) is based on Csikszentmihalyi's Systems Model of Creativity and helps make meaning of the study's data (2016). There are three parts to the model. The domain is the broad area that consists of symbols, language, tools, and culture, in this study the Army is the domain. The field is those who will judge the creative output, the USAWC is the field for this study. The faculty determine if the student's work is creative in the context of not only the curriculum, but the Army as it relates to common doctrine and culture. Finally, the individual student is the one doing the creating (Henriksen, Mishra, and Fisser 2016; Kaufman and Beghetto 2009). In the model, the domain is at the top not because it is more important. It is because the individual must possess, and the field must recognize, domain-specific knowledge in order to create and validate creative work.
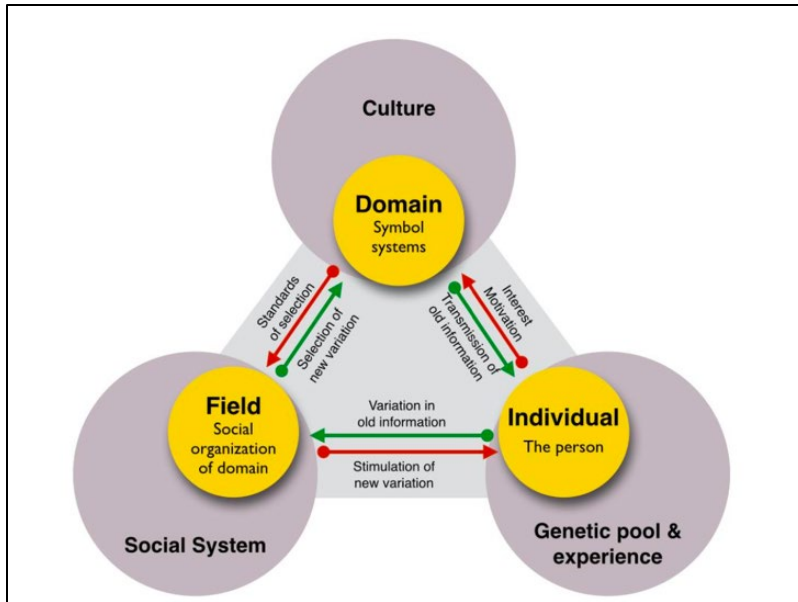
Figure 6.   Interaction between Individual-Field-Domain for Creativity

Source: Henriksen, Mishra, and Fisser, 2016, 30.

The model shows that creativity is a systemic process (Henriksen, Mishra, and Fisser 2016) that requires connections between the individual, the field, and the larger domain rather than just focusing on one particular part. The entire system is what gives creative output value. The original creator of the individual-field-domain model opined, "For creativity to occur, a set of rules and practices must be transmitted from the domain to the individual. The individual must then produce a novel variation in the content of the domain. The variation then must be selected by the field for inclusion in the domain" (Csikszentmihalyi 199, 315). An individual's experiences within the culture and the context of the Army are the information he or she carry into the learning environment. When the faculty imparts new information and concepts, the individual can then change their way of thinking as shown through creative thought or products. The faculty then

assesses the products and thoughts to determine their novelty and value before accepting something as creative in the context of the Army.

While assessment practices are discussed later in this chapter, it is important to point out that alignment mainly focuses on assessment. The three common elements of assessment are cognition, observation, and interpretation (Pellegrino 2014). These assessment elements must align for meaningful validation of creativity. The cognition considers what a learner must know, observation the ways in which knowledge is displayed, and interpretation takes place when evaluation criteria are applied to the observations. Bransford (2000) further validates the need for alignment by stating, "Students may be learning valuable information, but one cannot tell unless there is alignment between what they are learning and the assessment of that learning. Similarly, students may be learning things that others don't value unless curricula and assessments are aligned with the broad learning goals of communities" (151-152).

This study focused on the USAWC faculty as the field, however the interviews quickly made the connection between the importance of the student, the USAWC, and the Army as an institution when discussing creativity. The thoughts of the faculty participants in this study are in line with creativity researchers Henriksen, Mishra, and Fisser (2016) who state, "creativity must become systemic, at the levels of teacher *education, assessment, and educational policy*" (30). When faculty are hired to teach at the USAWC, the onboarding process does not discuss how to incorporate creativity within the classroom, leaving faculty to create conditions for creative expression. There is no formal assessment for creativity, therefore faculty who value creativity assess student work for its presence. Finally, there is no formal policy for creativity. However, the Joint

Chief's explicit end state for PME is to produce leaders who can think creatively. This end state drives the curriculum, assessments, and the role of PME.

Setting the Conditions for Creativity in the Curriculum

According to the USAWC website (2021), "The focus of senior level PME is to prepare students for positions of strategic leadership . . . Studies emphasize analysis, foster critical examination, encourage creativity, and provide a progressively broader educational experience" (n.p.). Given this curricular focus, two of the study's secondary research questions focused on the emphasis of creativity within the curriculum. As stated in the main finding, creativity is not currently emphasized in the curriculum.

However, the overall data show that the individual faculty and their pedagogical practices are the primary way in which creativity is emphasized rather than through the base curriculum. This finding is consistent with the literature (Henriksen et al. 2021; Park 2013; Peng 2019) when discussing the important role faculty play in establishing a classroom culture that values creativity. Without an explicit definition of creativity within the formal documents driving USAWC curriculum, how faculty define creativity determines how they view its manifestation within the curriculum. Henriksen, Mishra, and Fisser (2016) state, "it is important to note the significance of teacher beliefs about creativity . . . teacher beliefs about subject matter, learning, teaching . . . influence the way the approach practice" (31). Even though faculty can infuse creativity within their own classrooms, the lack of emphasis due to the way in which the curriculum is designed cannot be ignored.

<u>System-Driven Pedagogy</u>

Currently, the USAWC has a system-driven pedagogy, meaning the USAWC curriculum is built around the needs of the Army, Army culture, and Army expectations more so than the needs of the learner. The line between the Army's needs and the learner's needs may be blurred, but curriculum is focused on topics rather than outcomes. The system-driven pedagogy requires the faculty to set the conditions for creativity to manifest in the curriculum because the skills and processes for creativity are not inherent to the curriculum design.

The strong connection between the Army as an institution and the curriculum is evidenced by the way in which the USAWC frames the curriculum's focus: "the curriculum focus is on how the unified commanders, Joint Staff and DOD 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" (USAWC 2021, n.p.). As the Army changes, so too does the PME curriculum.

Participants discussed the revision of the curriculum that takes place within the USAWC. The most notable change in the latest curriculum revision, pertinent to this study, was the removal of creativity and creative thinking as a topic of instruction. In this study, creativity was mainly spoken of in relation to one module within a course, not as a concept or skill that permeates the curriculum. This finding is similar to other domains (Page and Thorsteinsson 2017) in that faculty believe certain subjects are not well suited for creativity. Courses that discuss topics that are heavy on policy or military systems, such as force management, are viewed as less tolerant of creativity.

The main reason given for the removal of creativity as a topic was the time needed to focus on other topics deemed necessary. As noted earlier, the USAWC website states students are encouraged to develop creativity, but this study showed that will only take place if the faculty value its inclusion and set the climate for its use (Page and Throrsteinsson 2017). This removal creates a thread for the misalignment between the Army, the USAWC faculty, and the students in terms of expectations surrounding creativity and deciding when or if it should be emphasized.

The need to shift away from a system-driven pedagogy focusing on topics has been noted by the Joint Chiefs. In their 2020 document, the Joint Chiefs call for critical tasks to adapt and innovate PME stating, "initially we must shift our PME curricula from a predominately topic-based model to an outcomes-based approach and emphasize ingenuity, intellectual application, and military professionalism in the art and science of warfighting, while deepening knowledge of history" (JCS 2020, 5). Ingenuity and intellect require creativity. Until the curriculum changes to focus more on outcomes versus topics, faculty will need to facilitate creative development in the classroom.

Pedagogical Practices that Support Transformative
Learning and Creative Development

Henriksen et al. note that faculty can facilitate creativity in the classroom and the curriculum when faculty "include designing learning sequencing and creating a climate that allows for risk, experimentation, failure, and iteration–or devising contexts that utilize complex problems that challenge" (2021, 2) students to think beyond what they currently know. Recognizing creativity as a thinking skill and not concept-based knowledge (Heinriksen, Mishra, and Fisser 2016), faculty talked of their need to create a

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climate that sets the condition for creativity to take place. Faculty are modeling the creation of a learning environment by encouraging innovation and recognizing the value of new approaches to problems (HQDA 2019e).

Creativity can be thwarted or supported in learning environments as talked about in chapter 2. Faculty in this study talked of the stifling of creativity and how they work to avoid doing such. The readily accepted answer that follows the usual way of thinking was something that participants stated they worked to avoid when assessing student work. Faculty acknowledged that students put themselves in a vulnerable position when they think creatively and recognize their position in supporting this vulnerability. This study found that faculty believe they have a role in recognizing and supporting the creative skills of their students (Henriksen et al. 2021; Kayaalp 2018). Faculty in this study also recognized the importance of the daily work environment of the operating force as a big factor in the continued development of creativity (Baer and Kaufman 2005). This recognition occurred through comments recommending the Army value and promote creativity. From this study, it was noted that the biggest way faculty show their support for creative development in the classroom is through the encouragement of divergent thinking (Vego 2013).

Divergent Thinking and Creativity

The study participants spoke of creativity as a skill and a process. In terms of measuring the creative process, evidence of divergent thinking is most common (Surkova 2012). Espy defined divergent thinking as, "the creative process of generating multiple possible solutions and ideas" (2021, n.p.). Divergent thinking is not "tests of creativity. They are estimates of the potential for creative problem solving" (Runco and Acar 2012,

72). Runco and Acar (2012) highlight the dichotomy between divergent and convergent thinking where the individual or group thinks of solutions that are unique or novel instead of the more traditional canonical answers to problems.

The USAWC faculty spoke of both divergent and convergent thinking within their classrooms. The faculty encouraged students to think in a divergent manner, getting their ideas and possible solutions out to the group showed their ability to incorporate new concepts and information into complex problems. The students drew on their knowledge of things such as doctrine, and their experiences, to converge on solutions that were both creative, fitting, and of value for the Army domain.

A process that is used in some USAWC classrooms is the Osborn Parnes Creative Problem-Solving Process, which recognizes and reinforces creativity's role in problem solving. This creative problem-solving process consists of four categories: clarify, ideate, develop, and implement (Espy 2021). Creativity is mainly used in the ideate category where participants are generating ideas that could be used to solve the problem. From these ideas, the participants apply criteria to evaluate and select a possible solution; much like the Military Decision Making Process. Designing courses of action requires officers to think creatively about the problem and draw upon their knowledge of the situation, their military experience, and make connections to create solutions that are of value.

Using Play within the Classroom

Modeling, creating a representation of abstract concepts, and playing are two tools one can use to begin shaping higher-order skills of creativity. Mishra, Henriksen, and Metha defined as, "using knowledge, body, mind and abilities for the pure enjoyment of using them . . . they may open doors to new ways of thinking and transform ideas"

(2015, 698). The idea of play in a military classroom may seem counterintuitive to the serious nature of war and strategic problems. However, an absence of play is known to stifle creativity (Runco 2014). While the use of play was not common across all interviews, it was discussed by two participants. As a more innovative approach to teaching, the use of play and gaming fits the future direction of PME as outlined by the Joint Chiefs (JCS 2020).

The first idea of play was in reference to a board game that was used to teach joint overmatch where students "learn about things like supply chains, sustainment, multiple fronts." The game is used for students who are novice to joint concepts as well as those who are more experienced. The faculty creators of the game found that students are using the playing cards in ways that they had not anticipated when designing the game. The second instance of play was done through the use of LEGO® SERIOUS PLAY® method, which "is a facilitated thinking, communication and problem solving technique for use with organisations, teams and individuals" (AMT 2019, n.p.) that helps teams to become more effective by fostering creativity, sharing and reflecting. During LEGO® SERIOUS PLAY® sessions, teams build metaphors while they play with LEGO® bricks" (SPP 2021, n.p.). Play's incorporation in the classroom is a pedagogical approach that is both creative on the part of the faculty, and a way for students to exercise creativity.

This section discussed the faculty as the primary way creativity is emphasized in the USAWC curriculum. Currently, system-driven pedagogy has removed creativity as a topic from the curriculum. However, faculty are creating the conditions for inclusion of creativity within some classrooms within the USAWC. The varying focus on creativity is

one way the mismatch between the Army, the USAWC faculty, and the student manifests. The Joint Chiefs have asked for a shift from topic-based to outcomes-based approaches to PME. One of the main differences in these approaches is how learning is assessed.

Recognizing Creativity through Informal Assessment

The study had two questions that focused on assessment of creativity within the USAWC curriculum. This study found that creativity is not formally assessed within the USAWC curriculum. This finding was both surprising and also not. The lack of formal assessment was surprising because of the accountability culture in which the USAWC functions. However, given that creativity is not emphasized in the curriculum the lack of formal assessment is not surprising. Even though creativity is encouraged according to the USAWC website, and the Army includes intellect–more specifically innovation– in its evaluation of leader attributes (HQDA 2019e), this study found there is no requirement to show creativity while attending the USAWC.

Literature recognizes there is tension between assessing creativity in a general or specific way within a domain (Henriksen, Mishra, and Fisser 2016). While the USAWC seeks to create generalists through their curriculum, the evaluation of creativity should take place by specialists within the subject such as military operations, leadership, or force management. The USAWC faculty hold the requisite domain-specific knowledge to assess a student's work as something of value. However, the misalignment between the Army, the USAWC faculty, and the student is again evident. Without a clear definition of creativity or formal evaluation criteria from the USAWC, faculty are left to apply criteria in line with how they define creativity in order to recognize creativity in their students.

Accountability Culture within the USAWC

An accountability culture places importance on the connection between performance and the goals of the institution (Dennen, Burner, and Cates 2018; Halverson and Shapiro 2012; Samosorn 2019). A culture of accountability is often seen when external stakeholders hold the organization responsible for outcomes. There is a fixation on quantifiable measurement within the military. Yearly performance evaluations enumerate an officer in rank order of their peers, quantifiable outcomes such as grades and class rankings dominate in PME. The study participants spoke of evaluating creativity through the use of a rubric and placing verbiage about creativity or creative potential on the end of course academic evaluation and yearly performance evaluations. Heavy reliance on measurement is in line with accountability cultures.

In a study by Samosorn (2019), institutional and personal records of progress– how the organization views progress versus how the faculty or individual views progress– were noted to differ in learning environments which encompass a curriculum-focused or topic-focused design supporting an accountability culture. Curriculum-focused design supports environments that utilize a "one size fits all" curriculum and traditional means of assessment such as tests, rubrics, and grades, similar to the topic-focused curriculum of the USAWC. This finding is not surprising as the data indicated the need for consistent, fair, and transparent criteria with which to evaluate students. Similar findings occurred in the current study. Faculty participants spoke of the need to be transparent about how they evaluate student work and the need for a rubric was the primary method they believed evaluation could be equal across all faculty and courses.

<u>A Request for Formal Assessment of Creativity</u>

Participants spoke of the need for formal assessment of creativity in two ways. The first was the inclusion of creativity on the rubric for assessing student work. The second was using the AER and OER to assess creativity and promote its value in and out of the USAWC. Throughout the interviews, participants noted how difficult it can be to assess creativity. The lack of a common definition of creativity as a construct within the USAWC, and the Army, creates a problem for assessment. In this study, the faculty noted they must find a way to define creativity, and its characteristics, in ways that are not completely subjective and still remain flexible to account for the content and the context of the student work (Henriksen, Mishra, and Metha 2015). Flexibility in assessment is also needed when faculty evaluate creativity as a process for problem solving or a creative output (Duckworth and Yeager 2015).

The data from this study reveal that USAWC faculty are already applying creative criteria similar to the Henriksen, Mishra, and Metha's (2015) rubric focusing on novelty, effectiveness, and wholeness of products. The faculty are looking for uniqueness, clarity, comprehension, well thought out ideas, and contextually relevant work. Further development of creative criteria for inclusion on a rubric may be taken from Besemer and O'Quin's (1999) Creative Product Semantic Scale, which assesses novelty, resolution, and elaboration and synthesis. The criteria for novelty are originality and surprise. Resolution looks for value, logic, usefulness, and must be understandable to the evaluator. Finally, elaboration and synthesis assess the organic qualities, elegance, and if the creative product is well-crafted (Besemer and O'Quin 1999). The authors developed

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the scale for a layperson to judge creativity, meaning a faculty member with domain-specific knowledge could easily evaluate a student's work using this scale.

Another way participants thought creativity could be formally assessed is through the AER within the academic environment and the OER for yearly evaluation in the workplace. This sentiment is shared by the Joint Chiefs, who stated, "We shall foster an environment where students are inspired to master the fundamentals of the art and science of war in an atmosphere and culture that encourages intellectual curiosity, stimulates critical thinking, rewards creativity and risk-taking" (JCS 2020, 7). The document goes on to states that "schools should capture student performance and potential in academic evaluation reports that include research, writing, and analytic achievements and demonstrated leader attributes" (7). The leader attribute of intellect includes innovation, and therefore creativity.

Faculty mentioned the possibility of placing verbiage on the AER that spoke to creative ability. In the absence of a rubric to evaluate creative output in course work, the evaluation of creative ability resides with the primary faculty leading a student's group. The concern with just the primary faculty completing the AER is that a student may not show creative ability when in a course with the primary faculty–especially if it is a course where the topics are deemed less suited for creativity– or the faculty does not value or feel comfortable evaluating creativity. For example, the student's primary faculty may teach force management, a topic that has been noted to be less suited for creativity, but the student then takes creative leadership as an elective course. The elective would allow the student to exercise creativity but may not be noted by the instructor completing the AER. The use of the OER for evaluating creativity will be discussed later in this chapter.

<u>Forms of Creativity Seen in the Curriculum</u>

As noted in chapter 2, there are various types of creativity that fall along a spectrum from Little-c creativity to Big-C creativity. Often the type of creativity is identified by the frequency in which they occur or the societal or domain impact of the creative outcome (Kaufman and Beghetto 2009). Kaufman and Beghetto (2009) described Little-c creativity as "daily innovation" (2) consisting of things done every day, and Big-C creativity as "eminent creativity" (6) that leaves a long-lasting impact on a field or domain. Between these two ends of the creative spectrum are Mini-c creativity described as "transformative learning" (4) and Pro-c creativity termed "professional expertise" (5).

Throughout the interviews, evidence of Little-c and Mini-c creativity were present. The trial and error of daily participation within the learning environment and incorporating domain-specific skills is an example of Little-c creativity. This form of creativity is often not noted because it happens daily. When a USAWC student internalizes and makes meaning of new content in relation to what they already know, they are participating in Mini-c creativity. With Mini-c creativity, the faculty are "recognizing that intrapersonal insights and interpretations, which often live only within the person who created them, are still considered creative acts" (Kaufman and Beghetto 2009, 4). Given ways in which participants in this study defined creativity, as a change in the way students think, the recognition of Mini-c creativity is high amongst some faculty. The development and support of Little-c and Mini-c should take place at all levels of PME, especially to build the base of creativity in the Primary levels of PME.

Intermediate and senior levels of PME should focus more on developing and recognizing Pro-c creativity. Pro-c creativity recognizes senior leaders who have moved beyond Little-c creativity but have not reached Big-C creativity (Beghetto and Kaufman 2009). Faculty can assess Pro-c creativity by recognizing a "solid, professional creative contribution" (Beghetto and Kaufman 2009, 5) such as the creation of a strategic policy. The approach to Pro-c creativity is similar to skill acquisition of expertise in that it takes close to ten years in a particular domain to gain the requisite skills and knowledge to become an expert. It is this category of creativity that should be expected of the Army's strategic leaders, recognizing that they possess knowledge and skill higher than that of a new Lieutenant or a Captain that has seen combat, but few will make such Big-C creativity impacts as those of military leaders Jomini and Clausewitz.

Assessment of creativity should be done based on the level of creativity being measured (Kaufman and Beghetto 2009). For example, assessment of Little-c and Mini-c creativity is appropriate for measure by an instructor and could be done through a rubric. The instructor's assessment of creativity is especially beneficial for recognizing domain-specific characteristics or content-specific knowledge included in the creative product. This level of assessment by instructors is also of use with Pro-c creativity within the PME environment and could be mentioned on the AER. Because USAWC students are encouraged to publish their work, the acknowledgement of the student's creative output is not only done by instructors but also through peers and other military members referencing their work (Kaufman and Beghetto 2009) and including creative outputs into the work environment; giving support for creative recognition on the OER.

TRADOC Pamphlet 528-8-2 (2017) alludes to the difficulty in validating more creative solutions that come about in educational settings. Using Henriksen, Mishra, and Fisser's model discussed early in this chapter, the USAWC faculty are the experts determining the value of a student's creative output based on the Army's culture, rules, and doctrine. The validation process begins with the faculty's assessment and continues when the individual takes their creative work outside the walls of the academic setting and continues to share their work when contextually appropriate.

Creative products are not just novel and useful, but also tied to the context of its creation (Henriksen, Mishra, and Metha 2015). The participants in the study recognize that while there is no formal evaluation of creativity within the curriculum, they are able to generate criteria for creative output within the context of their course curriculum. The Army is part of an accountability culture and measuring subjective skills, such as creativity, is challenging. The difficulty in measuring creativity without a formal rubric contributes to the mismatch between what is measured within PME and what documents directing PME express.

Capitalizing on Existing Creativity

The study's final question asked participants how they perceive the USAWC's ability to develop creativity in the students. This question asked to gather faculty thoughts about creativity outside of a focus on curriculum or assessment. The results show that faculty believe the Army has creative personnel but does not value creativity. Therefore, the Army does not capitalize on already existing creativity within its ranks.

It was noted that faculty believed that what is recognized for promotion is considered valuable. The recommendation to use the OER for discussing an officer's

creativity came through in the interviews. In going through doctrine, documents that

direct PME, and the interview data, inconsistent language referencing creativity is seen.

Inconsistent language across documents, which make it unclear what to measure or value,

is the final reason for a mismatch regarding creativity between the Army, the USAWC,

and the student.

Inconsistent Language

The terms creativity, creative thinking, innovation, mental agility, and intellect are

present within Army doctrine and USAWC documents. Just within ADP 6-22 (HQDA

2019e), there is discussion of mental agility, innovation, and adaptability which all

require a level of creativity. These terms were used interchangeably throughout the

interviews, and similar results were noted when reviewing documents.

If the Army as a domain has an expectation that leaders are to be innovative,

creativity must be emphasized and valued at all levels within its organizations. To begin

valuing creativity, consistent terminology must permeate the doctrine. Doctrine often

hints at the importance of creativity, without explicitly using the term creativity. For

example, Army Regulation (AR) 600-100 (HQDA 2017) states that a healthy Army

culture and organizational climate "promotes and rewards mental agility, the ability to

break from established paradigms, recognize new patterns or circumstances, and adopt

new solutions to problems" (2). According to the participants in this study, and creativity

researchers, these characteristics are actually the promoting and rewarding of creativity.

The Army leadership requirements model recognizes innovation as an attribute

associated with intellect, yet creativity is not listed as a competency. Army doctrine

houses creative thinking within the competency of mental agility, which is defined as the

"ability to think flexibly" (HQDA 2019e, 4-1). Innovation within ADP 6-22 (HQDA 2019e) is defined as "the ability to introduce or implement something new" (4-2) while exercising "creativity in producing ideas and objects that are both novel and appropriate" (4-5). In this study, faculty often spoke of introducing something new as creativity whereas the creative idea comes to fruition and implementation is seen as innovation (Amabile 1988).

Previous studies have noted that motivation is key for creative development (Amabile 1988; Baer and Kaufman 2005). Promotion in the military is motivating. The data from this study show faculty believed the evaluation of creativity will not take place unless it is required for promotion or explicitly stated in performance evaluations. The surprising finding in this study is that through document review the language supporting creativity permeates the document, but the terms are inconsistent. Therefore, using consistent language for measures that already exist can assist in recognition of creativity within Army personnel.

Using Existing Measures

Using the OER to assess creativity was frequently mentioned in the interviews. Army Leader performance indicators do assist with evaluating an officer's intellect, which covers innovation, and are outlined in Field Manual (FM) 6-22 (HQDA 2015). In terms of innovation, an officer shows a need for further development if he or she "relies on traditional methods when faced with challenging circumstances" (HQDA 2015, 6-5). Meeting the standard in innovation occurs when officers "offer new ideas when given the opportunity. Provides novel recommendations when appropriate" (HQDA 2015, 6-5). The USAWC faculty that participated in this study talked of observing a change in their

students' way of thinking, of letting former perceptions go and therefore meeting the standard of innovation according to doctrine.

Strength in innovation occurs when an officer "consistently introduces new ideas when opportunities exist to exploit success or mitigate failure. Creatively approaches challenging circumstances and produces worthwhile recommendations" (HQDA 2015, 6-5). The distinction between meeting the standard and showing a strength for innovation is not distinct, but creativity's role in stronger innovation is now explicit.

The explicit mention of creativity in Army documents was believed to be important by participants. Many stated that understanding of what creativity is, and its importance, may be implied in Army and USAWC documents. However, given the varying definitions from participants and their questioning what is meant when the Joint Chiefs state they want creativity it is clear that ambiguity surrounding the term exists. A common definition and measure across documents will help promote creativity's value and alignment of assessment between the Army, the USAWC faculty, and the students.

<u>Creativity's Importance for the Warfighter</u>

The 2018 National Defense Strategy (Mattis 2018) emphasizes the military leader's ability to take risk and ADP 5-0 (HQDA 2019d) asks leaders to apply creativity throughout the operations process. The military landscape is constantly changing. Two decades of counterinsurgency operations have allowed officers to gain domain-specific knowledge that shapes how they think. However, the future focus is on large scale combat operations. Creativity has a role in leader development for Army 2028 and beyond as "creative thinking is essential for 21st century success, as societal problems become more interdependent, global and complex" (Henriksen, Mishra, and Fisser 2016,

28). Within learning environments and the workplace, creativity can be fostered by allowing and encouraging risk and through developing strategy building skills.

ADP 6-22 (HQDA 2019e) asks leaders to create an environment encouraging subordinates to take risks and accept mistakes in order to develop one's mental agility. As noted earlier, mental agility can be measured as part of an officer's intellect. Therefore, taking risk requires creativity. Recent research shows that encouraging creativity within learning environments not only helps learners with problem solving, but also provides a way for students to take risk when offering novel ideas (Henriksen et al. 2021; Beghetto 2018). This concept was noted in the interviews as faculty spoke of the USAWC students' willingness to risk showing vulnerability and failure when offering new ideas. Recognizing risk-taking as a way to increase creativity (Henriksen et al. 2021; Page and Thorsteinsson 2017) is especially beneficial to strategic leaders tasked with adapting and solving problems in a complex and perpetually changing global landscape.

Graduates of the USAWC are strategic thinkers. In a 2019 *Harvard Business Review* article aptly titled "Strategy Needs Creativity," Adam Brandenburger states that, "game-changing strategies are born of creative thinking: a spark of intuition, a connection between different ways of thinking, a leap into the unexpected" (n.p.). The varying tools and frameworks used to analyze problems are not enough to generate strategy, students also need "tools explicitly designed to foster creativity" (Brandenburger 2019, n.p.). Table 15, provides four approaches to creative strategy building that encourage students in any domain to move beyond the traditional ways things have been done by connecting concepts from various domains, courses, experiences, and problems to change the way they think.

Table 15.   Approaches to Creative Strategy Building

Approach	Use in strategy building
Contrast	Challenge how things have always been done
Combination	Make connections or link things that may inherently not go together
Constraint	Use limitations in the environment as a strength
Context	Consider solutions to a like problem seen in a different domain

Source: Brandenburger, 2017.

ADP 6-22 (HQDA 2019e) explicitly states that leaders cannot be surrounded by "staffs that blindly agree with everything they say" (10-6). Challenging assumptions and biases assists in effective strategic thinking (Waters 2011). The study's data show the notion of saying what one's boss wants to hear, or providing an answer that satisfies the way the boss thinks is, at times, valued in the Army. Leaders who encourage subordinates to express alternative solutions or points of view are creating the foundation for a climate where creativity is inherent in building strategy.

Recommendations

Creativity has not historically been a focus of PME. However, the Joint Chiefs have published a document which places a focus of importance on creativity and creative development (JCS 2020). Recommendations for this study are framed by asking if creativity is a skill and a process, what should PME at the USAWC do to enhance it? The

most beneficial way to enhance creativity is through the alignment between the Army, the USAWC, and the individual. Therefore, the following recommendations are made: (1) creativity's definition must be clear, (2) a shift from a system-driven pedagogy to an outcomes-based approach to the curriculum needs to take place, (3) the culture of accountability must include evaluation and recognition of creativity to show its value.

The Joint Chiefs need to provide a clear definition of what they consider creativity. This provides a common frame of reference from which all other recommendations can be built. With a clear definition of creativity, the USAWC is able to incorporate it into the OPMEP explicitly and create outcomes to meet the intention and provide the institutional records of progress that will track the requirement. A suggested definition that best meets what exists in creativity research literature and the ways in which the study participants define creativity is: a "person's capacity to produce new or original, [purposeful and appropriate] ideas, insights, restructurings, inventions or objects, which are accepted by experts as being of scientific, aesthetic, social or technological value . . . achieved by combination or transformation of existing products" (Surkova 2012, 122).

The USAWC should include creativity as it moves from a system-driven pedagogy to an outcomes-based approach to the curriculum. Leaders within all Joint PME institutions, to include the USAWC, are currently realigning their curriculum towards Program Learning Outcomes in accordance with the current OPMEP (CJCS 2020). The programmatic outcomes assure that PME curricula objectively measures outcomes. The outcomes must be clear and consistently applied across the curriculum. To facilitate the inclusion of creativity, creative concepts must be infused in all courses, not

just one. Literature states, "Creativity is not a domain by itself but a way of thinking and approach to problem solving that cuts across disciplines" (Henriksen, Mishra, and Fisser 2016, 35). A way to achieve creativity's permeation across courses is through a change in learning outcomes. It was noted in the data that learning outcomes rarely go beyond "synthesize." Curriculum designers can move away from the topic of creativity as a module to creativity as an outcome by focusing on the tip of Bloom's Taxonomy pyramid to "create." Defined as "produce new or original work," outcomes such as "design, assemble, construct, conjecture, develop, formulate, author, investigate" (Armstrong 2010, n.p.), achieve creative development. Including learning outcomes that highlight creative development across the curriculum alleviates the issue of time as a new module of instruction does not need to be introduced.

The need for measurement will never be removed from PME, as accountability culture will remain. It is unclear at this time what records of progress will be required, if any, to show PME's development of student creativity. However, to assist faculty in recognizing creativity a rubric can be used. Creating a rubric to evaluate Mini-c creativity establishes its importance in leader development. Additionally, including creativity recognition in faculty development will allow those who feel less comfortable with creative concepts to become familiar with creativity as it is defined by the USAWC and its measurement through rubrics. Further discussions about recognizing and rewarding Pro-c creativity should take place.

<u>Implications</u>

The results of this study add to the growing body of creativity research. From a theoretical perspective, the data begin to close a gap in the literature regarding creative

development within the military, and more broadly creative development of adult learners. This study has practical implications for education, especially within PME, and the development of policy regarding creativity. With a clear definition of creativity from the Joint Chiefs, policy referencing PME can begin to include creativity. By evaluating creativity within educational environments, the skills gained can carry into the workplace and impact policy and subordinate leader development.

<center>Limitations and Future Research</center>

This study began with five assumptions: creativity would not be a priority focus as it vies against other skills necessary of a strategic leader; assessment of creativity would be too fixed and rigid to a fixation on measurement within the Army and PME; the term creativity would be used interchangeably with creative thinking and innovation; access to the curriculum would be granted; finally, faculty would participate in a study about creativity. Of these assumptions, all were true except the rigid assessment of creativity. While the fixation on measurement remains, the lack of formal assessment was surprising.

Limitation in the study were noted. First, the perspective of each faculty is unique to them and is determined by their prior experiences, and how they interact within the organization (Hora, Bouwma-Gearhart, and Park 2017) and therefore makes the data difficult to generalize. The participants were volunteers and identify as one who values creativity, possibly skewing the results. Further, this study did not take into account the experiences of students who have taken part in the USAWC curriculum.

There are areas for future work. First, the conduct of a similar study should be done with the War Colleges from the Air Force, Navy, and the National Defense

University to examine creativity across the Department of Defense. Second, studying how creativity supports talent management is another area for future work. Third, future work should seek to interview faculty who may not identify as one that values creativity. Fourth, inclusion of the student perspective on creative development during his or her time at the USAWC would provide a different perspective. Fifth, seeking the perspective of senior leaders who employ recent USAWC graduates would provide further evidence of the curriculum's ability to develop creative skills in attendees. Finally, an observation study would give further insight into how the faculty and students interact with the curriculum and possible avenues for insertion of creative development opportunities.

Summary

The purpose of this qualitative case study was to examine how USAWC faculty describe creativity within the USAWC curriculum to better understand creativity's current manifestation from the perspective of those directly interacting with the curriculum. Examination of the curriculum, assessment of creativity, and the perceptions of USAWC faculty as they relate to the curriculum's ability to develop creativity in their students took place within this study. The examination of creativity within the USAWC occurred by asking faculty describe creativity in the USAWC curriculum. The secondary questions focused on the ways in which creativity is currently emphasized and assessed within the curriculum, as well as the perceptions of the curriculum's ability to develop creativity within USAWC students.

The main finding of this study was the realization of a misalignment between individuals, the field, and the Army as a domain when assessing and assigning value to creativity. The misalignment is due to a system-driven pedagogy, the focus on a culture

of accountability, and inconsistent language regarding creativity within doctrine and guidance from the Joint Chiefs. The study's results also focused around three main themes: creativity is emphasized in the curriculum through faculty creating the conditions for creative expression; creativity is assessed only when faculty recognize it in student work, not through formal evaluation; finally, the Army has creative personnel, but must find ways to allow them to exhibit creative skills and collectively capitalize on diffuse creativity. Alignment between the Army, the field of faculty at the USAWC, and the students can be achieved through the use of a common definition of creativity. Additionally, clear measurement of creative outcomes will not only provide faculty with criteria in which to assess creativity but also a way for the USAWC to show creative development in support of the Joint Chief's expectations of PME.

APPENDIX A

PROTOCOL QUESTIONS

START: Can you tell me a little about the course you are teaching this academic year?

OPENING QUESTION: In your experience as WC educator can you please share an instance of when you recognized students using creative thinking.

1. How does the curriculum currently emphasize creativity?

   a. INTERVIEW QUESTION: From your perspective as a USAWC educator, how is creativity emphasized in the curriculum?

   b. FOLLOW-UP QUESTION: Is there anything you do to infuse creativity into the classroom that is not specifically written into the curriculum?

2. How does the curriculum content need to change to increase emphasis on creativity? (Ask this question as written)

   a. FOLLOW-UP QUESTION: If you do not think the emphasis needs to change, can you tell me why that is?

3. How does the curriculum currently assess creativity?

   a. INTERVIEW QUESTION: From your perspective as a WC educator how is student creativity assessed in the classroom?

4. How does the assessment of creativity need to change?
   (Ask this question as written)

   a. FOLLOW-UP QUESTION: Do you make any personal adjustments to the assessment criteria that may not be reflected in official grading criteria?

   b. FOLLOW-UP QUESTION: If you do not think the assessment of creativity needs to change, can you tell me why that is?

5. What are the perceptions of USAWC faculty on program's ability to develop creativity in its students?
   a. INTERVIEW QUESTION: Overall, how well do you think the program develops creativity in the students?

   b. FOLLOW-UP QUESTION: If you could tell the Joint Chiefs or TRADOC leadership anything related to the creative development of senior officers that attend the USAWC, what would it be?

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