

Cognitive Agility and Mental Resilience: Preparing Leaders for Future Challenges

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Abstract

One mission for the Marine Corps is prepare for combat. The purpose of this study is a mixed methods design exploring leaders' perception of preparedness to demonstrate cognitive agility and mental resilience for future challenges. Participants addressed perceptions of preparedness to exercise cognitive agility and mental resilience in planning, mission execution, and decision making for future challenges, the impact of Decision Forcing Cases to practice, and implications of a teaching and learning processes to develop flexible learning leaders. While leaders expressed refinements to education and training, they expressed deficit areas to self-prepare and prepare Marines to be proactive and reactive to fight in uncertain, complex, and ambiguous environments. Recommendations concluded with leaders' acknowledgement of curriculum design and implementation of an educative approach to prepare leaders for future challenges. Leaders related plans to explore three major areas of action for designing future education and training; 1) Ensure leaders understand and exercise cognitive agility and mental resilience, 2) Leaders develop courses and practical exercises that will prepare them for future conflict, and 3) Leaders will research, create, and incorporate focused Decision Forcing Cases (DFC), Tactical Decision Games (TDG), and Kriegspiels (KS) to evaluate Marines' cognitive agility and mental resilience in planning, mission execution, and decision making for future challenges.

Keywords: adaptive learning, reflective thinking, transformative learning, 21st century conflict, systems thinker

1. Introduction

The transformation of conflict has the Marine Corps reconsidering future actions that require cognitive agility and mental resilience (Kumar, 2017). Through education and training (MCDP 1, 1997; MCDP 7, 2020), Marines can continue success in future challenges also referred to as 21st century conflict. The Commandant states "It is my intent in preparing the force...for...[the demands of the 21st century] by creating Marines and their leaders who have superb tactical judgement and are capable of rapid decision making under physical and emotional duress..." (Talent Management 2030, (2020) p. 1). To that end, Marine Corps Tactics and Operations Group (MCTOG) designs curriculum and wargames to address various situations for tactical skills and warfighting integration application. These situations require

agile thinking and resiliency in actions. MCTOG participates and facilitates education and wargames to assess planning, mission execution, and decision making.

This article explores MCTOG leaders' perceptions of preparedness to exercise cognitive agility and mental resilience and the implication of DFCs to prepare leaders for future challenges. In a survey and interview, leaders responded to two research questions: 1) What are the perceptions of leader preparedness to exercise cognitive agility and mental resilience for future challenges? 2) What impact might a focused DFC have on preparing leaders to exercise cognitive agility and mental resilience in planning, mission execution, and decision making for future challenges?

Literature supports three emerging themes; 1) tactics and warfighting philosophy, 2) leaders as learners and systems thinkers, and 3) cognitive agility and mental resilience training. The survey and interview formed a theoretical framework. The article will address the literature review, theoretical framework, data results and discussion, concluding with implications and recommendations for action and future research.

1.1 Literature Review

Tactics and Warfighting Philosophy is a mindset. Marines have applied for timeless and everchanging war (MCDP 1, 1997) by the evolution and innovative incorporation of tactics and warfighting; kinetic or non-kinetic (Creveld, 1991). General David H. Berger stated, "The character of war is increasing dynamic...rapid advancements...has accelerated...ensuring that the character of war in the future will be much different than that of the recent past" (Talent Management 2030, 2021). It is important that Marines focus on agility and resilience preparedness for future challenges. Literature captures the theoretical application of tactical flexibility and creativity starting with the Battle of Leuctra in 371 B.C. Tactics and warfighting theory continued in combat training exercises at Nellis Air Force Base in Nevada in 1974 (Lind, 2018) and was later coined as a tactical philosophy integrating warfighting functions (MCDP 1, 1997; MCDP 1-3, 1997).

Leaders as learners is a concept for leader development and implementation to be proactive for sudden changes in organizational plans to avoid deficits, weak strategy, and limited rationale for awareness (Cebrian et al., 2015). To enhance the mindset of leaders as learners, leaders are taught to redesign instruction to increase flexible thinking, rethinking, and reflective and adaptability skills (Brown, 2009; Grant, 2021). Thus, leaders as systems thinkers prepares leaders to learn new processes. Leaders learn to be systems thinkers for globally situations which are more complex and uncertain (Drew, 2010). Systems thinkers, continuously learn to exercise a great deal of cognitive agility in flexible thinking past initial problem framing to problem solving. They can see the problem in layers and can provide solutions in layers (John Hopkins, 2021; Senge, 2006).

Mental resilience is defined as the ability to continue to focus even amid distractions, potential and actual failure, and complex, unknown situations requiring sound decisions (Allison, 2012; MCDP 1, 1997). Demonstrating mental resilience is complex and is primarily dependent on situations. Cognitive agility defined as flexible thinking, is a tool used to build capacity in flexibility known to impact

resilience in outcomes during complex, uncertain, ambiguous situations (Matthews et al., 2019). Mental resilience training covers a multifactorial resilience theory for greater understanding of critical thinking in action. Cognitive agility is a desired characteristic of leadership (Gerras, 2006) as the military prepares for complex, uncertain, and ambiguous challenges. Cognitive agility training is practicing critical thinking; a mindset dedicated to the process of questioning for logic, understanding and reflection (Augier & Barrett, 2021; Guillot, 2006).

1.2 Theoretical Framework

Transformative learning is a multi-facet theory that uses a multidisciplinary approach to change, triggering critical self-reflection (Christie et al., 2015; Edwards, 2017) generally in an undiscovered deficit in knowledge needed to progress (Elder, 2011). Transformative learning in education and training exercise (Heffner et al., 2011; Wang et al., 2011) enables leaders' use of cognitive agility and exercising mental resilience (Fisher-Yoshida et al., 2009).

The use of adaptive learning theory focuses on leaders learning the application of taking a holistic metacognitive approach to change as the situation changes (Kahn, 2017), reflecting in actions and on actions (Edwards, 2017). Transformative leaders learn to be adaptable and reflective to ensure mental preparedness for unfamiliar situations. Adaptive learning creates sustainable leadership. Leaders can execute a "transformative leap" (Hayashi et al., 2012, p. 81) to focus on increasing global challenges (p. 80).

Reflective learning theory, also referred to as reflective thinking, is a process designed to help leaders analyze past actions and prepare for better execution of future actions (Ramsey, 2006; Rodgers, 2002). Reflective learning helps leaders to think about decisions made from an authentic leadership stance of self-awareness, balanced processing, relational transparency, and previous experiences (Gardiner & Thompson, 2013). Reflective learning helps leaders better process stressful, uncertain situations (Krulak, 1999) and be aware of their emotional intelligence (Duncan et al., 2017; Goleman, 1997) when faced with friction.

1.3 Aim of the Research

The study explored leaders' understanding to improve processes of transformative, adaptive, and reflective approaches to 21st century preparedness. Leaders responded to the research questions providing their perception of leader preparedness to exercise cognitive agility and mental resilience for future challenges and the impacts of a focused DFC to practice cognitive agility and mental resilience in planning, mission execution, and decision making for future challenges.

2. Methods

2.1 Design

The mixed method research design consisted of fifty-nine (59) participants completion of a 26-question online survey and 7 interview questions. Quantitative data was analyzed by survey question groups based on the objectives and the research questions. The survey and interview data was analyzed using a recurring theme coding process to determine the frequency of responses aligned to the research questions, survey categories, literature themes, and theoretical framework. Data analysis identified the overarching literature themes and theoretical framework.

2.2 Sample

MCTOG is responsible for development, delivery, and assessment of education and training (MCDP 7, 2020), warfighting integration (MCDP 1, 1997), planning and decision making (MCDP 5, 1997; MCDP 6, 2018) curriculum for ground combat commanders, operations and intelligence officers and operations and intelligence chiefs. The sample population consisted of a diverse group of MCTOG current and previous leaders and supporting departments. The population has years of instructional and leadership experience, military service, and varying roles. Table 2 is participant demographics.

Table 2. Demographic characteristics of the sample: 59 participants

Years of Service	1-5 years: 14% (8)	6-10 years: 7% (4)	11+ years: 80% (47)
Years at MCTOG	3+ years: 22% (13)	1-2 years: 39% (23)	Less than a year: 39% (23)
Position at MCTOG	Instructor: 41% (36)	Support Staff: 15% (13)	Mentor: 13% (11)

2.3 Data Collection Tool and Data Collection Process

Data collection came from the survey and interviews. Aggregated data and findings determined quantitative measures and qualitative themes. Quantitative data collected was analyzed through Survey Goal. Qualitative data collected was processed through a Visual Basic for Applications (VBA) Macro to capture, sort, and organize the data.

2.4 Data Analysis

Data analysis from the literature resulted in scholarship support to the study. Data analysis from the survey and interviews addressed participants personal contribution to the study. Thus three methods were developed for easy interpretation of the findings and results (Mayan, 2016; Merriam & Grenier, 2019). One, manageable and organized data at the readers' knowledge and understanding level (Alsaleh, 2020). Two, present clear data with imagery (Yildiz & Eldeleklioglu, 2021). Three, eliminate unnecessary and irrelevant data (Collett & Green, 2017). Data analysis, organization, and interpretation

to codify key themes were deduced from the literature themes, interviews, and surveys (Collett & Green, 2017; Mayan, 2016).

2.5 Results and Discussion

Research results was formed by literature themes and theoretial framework. Survey questions #7, 8, 14, 15, 21, 23 and 24 explored Marines' perceptions of application of tactics and integration of warfighting, perceptions of preparedness to effectively plan, execute missions, and make decisions, perceptions of cognitive agility and mental resilience, and perceptions of the impact of a DFC to prepare leaders for future challenges. Interview responses aligned with selected survey questions served as a qualitative measure of prepeceived preparedness. Table 3 are the survey questions. Table 4 is the interview questions.

Table 3. Leader's Perception of Preparedness Survey of selected questions

<p><u>Application of tactics and integration of warfighting</u></p> <p>7. I am confident in my ability to apply Marine Corps tactics and warfighting effectively in training?</p> <p>8. I am confident in my ability to apply Marine Corps tactics and warfighting effectively in combat?</p> <p><u>Leader preparedness</u></p> <p>14. I am prepared for planning, mission execution and decision making for "future challenges" in conflict?</p> <p>15. Marines (i.e., instructors, students, and staff) trained at MCTOG are prepared for planning, mission execution and decision making for "future challenges" in conflict?</p> <p><u>Cognitive agility and mental resilience</u></p> <p>21. Marines currently have the cognitive agility they need to prepare for future challenges.</p> <p>23. Marines currently have the mental resilience they need to prepare for future challenges.</p> <p><u>Impact of DFCs</u></p> <p>24. From the list below select the option that best completes the sentence: Participating in DFCs will _____how leaders exercise mental resilience and/or cognitive agility in future challenges.</p>
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Table 4. Leader's Perception of Preparedness Interview Questions

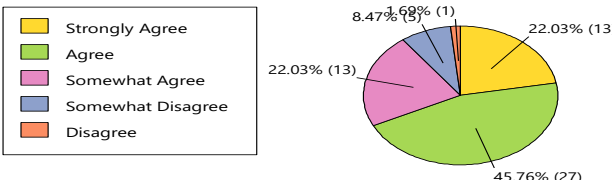
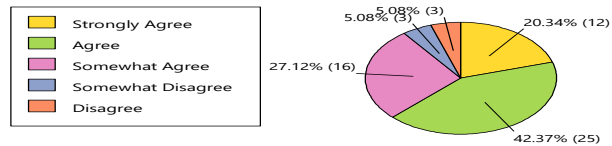
<p>1. Think about the application of tactics and the integration of warfighting. Can you describe in your own words your perception of preparedness for kinetic and/or non-kinetic actions in future wars?</p> <p>2. In the survey, you were asked if you exercise cognitive agility (flexible thinking) and mental resilience (bouncing forward even in adversity) in planning, mission execution, and decision making. How would you exercise cognitive agility and mental resilience in a combat situation differently than in training for combat?</p> <p>3. In your experience and position, how have units been successful in framing the problem, wargaming Courses of Action, and then executing the plan effectively?</p> <p>4. What is your take on whether staffs understand the purpose of planning to ensure they are cognitively agile and flexible in execution and decision making? Please explain.</p> <p>5. You have perhaps participated in several Decision Forcing Cases (DFC) and responded to how it could assist leaders. Please expand on what you would consider the impact of a focused DFC that could provide repeated practice for cognitive agility and mental resilience?</p> <p>6. How prepared do you feel you are, in your position, to help Marines be prepared for future challenges</p>
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in combat or for training?

7. If you feel unprepared, what do you think you could do to be more prepared?

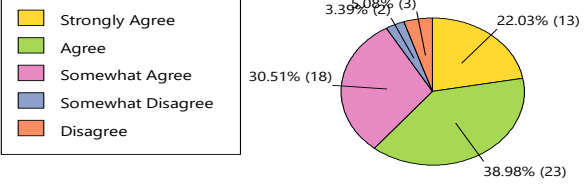
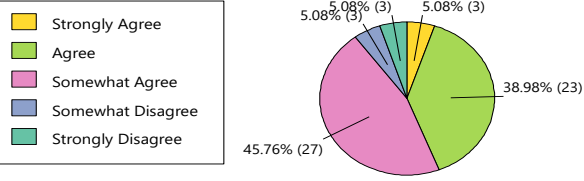
Question #7 and #8 explored the perception of confidence and ability to apply Marine Corps tactics and warfighting in combat compared to training. 46% (27) “agree” to have confidence to apply tactics and warfighting in training while 42% (25) perceived most Marines feel they have the wherewithal to apply tactics and warfighting in combat as much as in training. 88% (52) rated confidence of knowledge, understanding and application of Marine Corps tactics and warfighting in training and combat. Table 5 summarizes the finding.

Table 5 Summary of Survey Findings for question 7 and 8

Survey Topic: Application of Tactics & Integration of Warfighting	Topic Response /Frequency	Graphic data
7. I am confident in my ability to apply Marine Corps Tactics and Warfighting effectively in training	a. Strongly Agree: 22% (13)	
	b. Agree: 46% (27)	
	c. Somewhat Agree: 22% (13)	
	d. Somewhat Disagree: 8% (5)	
	e. Disagree: 2% (1)	
8. I am confident in my ability to apply Marine Corps Tactics and Warfighting effectively in combat	a. Strongly Agree: 20% (12)	
	b. Agree: 42% (25)	
	c. Somewhat Agree: 27% (16)	
	d. Somewhat Disagree: 5% (3)	
	e. Disagree: 5% (3)	

Survey questions #14 and #15 explored leaders’ preparedness to engage in future challenges to address research question 1) What are the perceptions of leader preparedness to exercise cognitive agility and mental resilience for future challenges? 39% (23) “agree” being personally prepared for planning, mission execution, and decision making for future challenges in conflict and 39% (23) “agree” Marines trained at MCTOG are prepared for planning, mission execution, and decision making for future challenges in conflict. Marines are confident in the application of tactics and warfighting in preparedness for planning, mission execution, and decision making for future challenges in conflict. Table 6 summarizes the findings.

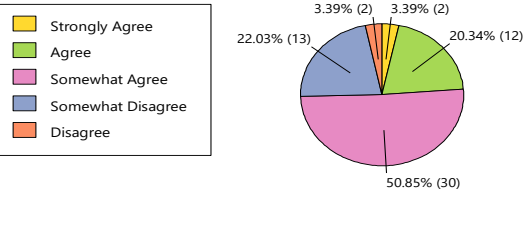
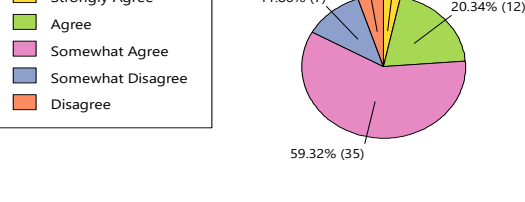
Table 6 Summary of Survey findings for question 14 and 15

Survey Topic: Leader Preparedness	Topic Response /Frequency	Graphic data
14. I am prepared for planning, mission execution and decision making for “future challenges” in conflict?	a. Strongly Agree: 22% (13) b. Agree: 39% (23) c. Somewhat Agree: 31% (18) d. Somewhat Disagree: 3% (2) e. Disagree: 5% (3)	
15. Marines trained at MCTOG are prepared for planning, mission execution and decision making for “future challenges” in conflict?	a. Strongly Agree: 5% (3) b. Agree: 39% (23) c. Somewhat Agree: 46% (27) d. Somewhat Disagree: 5% (3) e. Disagree: 5% (3)	

Survey questions #21 and #23 expanded on research question #1 to determine the degree Marines currently have the cognitive agility (#21) and the mental resilience (#23) to prepare for future challenges. 20% (12) “agree” that Marines have the cognitive agility and mental resilience for future challenges. Table 7 summarizes the findings.

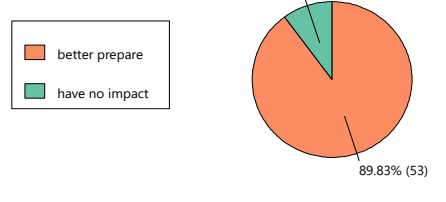
Table 7 Summary of Survey findings for question 21 and 23

Survey Topic: Cognitive Agility & Mental Resilience	Topic Response /Frequency	Graphic data

<p>21. Marines currently have the <u>cognitive agility</u> they need to prepare for future challenges.</p>	<p>a. Strongly Agree: 3% (2)</p> <p>b. Agree: 20% (12)</p> <p>c. Somewhat Agree: 51% (30)</p> <p>d. Somewhat Disagree: 22% (13)</p> <p>e. Disagree: 3% (2)</p>	
<p>23. Marines currently have the <u>mental resilience</u> they need to prepare for future challenges.</p>	<p>a. Strongly Agree: 3% (2)</p> <p>b. Agree: 20% (12)</p> <p>c. Somewhat Agree: 59% (35)</p> <p>d. Somewhat Disagree: 5% (3)</p> <p>e. Disagree: 3% (2)</p>	

Survey question #24 addressed research question 2) What impact might a focused DFC have on preparing leaders to exercise cognitive agility and mental resilience in planning, mission execution, and decision making for future challenges? 90% (53) suggests DFCs could “better impact” and contribute to increased preparedness. Table 8 summaries the findings.

Table 8 Summary of findings for DFC impact to leader preparedness

Survey Topic: Impact of DFCs	Topic Response /Frequency	Graphic data
<p>24. Participating in DFCs will ____ how leaders exercise mental resilience and/or cognitive agility in future challenges</p>	<p>a. fully prepares</p> <p>b. better prepare: 90% (53)</p> <p>c. has no impact: 10% (6)</p>	

Qualitative research aids in the exploratory nature of the respondent’s own language and perception (Herr & Anderson, 2015). Interview data analysis triangulated the survey to the literature themes and theoretical framework. Table 9 summarizes the findings.

Table 9 Interview questions aligned to survey questions, literature, and framework

Interview Question	Survey Question (SQ)/ Literature Theme (LT)/Theoretical Framework (TF)
<p>1. Can you describe in your own words your preparedness for kinetic and/or non-kinetic actions in future wars?</p>	<p>SQ: 6, 7 8</p> <p>LT:The application of Tactics and Warfighting</p>

2. How would you exercise cognitive agility and mental resilience in a combat situation differently than in training for combat?	SQ: 20, 21, 22, 23 TF: Transformative Learning, Adaptive Learning, Reflective Learning
3. ...how have units been successful in framing the problem, wargaming Courses of Action, and then executing the plan effectively?	SQ: 16, 17, 18, 19 LT: Leaders as Learners, Systems Thinkers TF: Transformative Learning
4. What is your take on whether staffs understand the purpose of planning to ensure they are cognitively agile and flexible in execution and decision making? Please explain.	SQ: 16, 17, 18, 19 LT: Leaders as Learners, Systems Thinkers TF: Transformative Learning
5. Please expand on what you would consider the impact of a DFC that focuses on repeated practice for cognitive agility and mental resilience?	SQ: 24 LT: The application of Tactics and Warfighting - impacts of focused DFCs
6. How prepared do you feel you are, in your position, to help Marines be prepared for future challenges in combat or for training?	SQ: 14, 15 TF: Transformative Learning, Adaptive Learning, Reflective Learning
7. If you feel unprepared, what do you think you could do to be more prepared?	SQ: 14, 15 TF: Transformative Learning, Adaptive Learning, Reflective Learning

Interview question #1 showed 46 excerpts of leader's preparedness in the application of tactics and warfighting in future wars. 78% (33) addressed the literature themes and 28% (13) supported the survey questions. Table 10 lists a couple interview quotes.

Table 10 Summary of findings for Interview Question 1

Interview Quote	Literature Theme/Survey Question
I think we're doing a good job of getting them prepared and getting them to think outside the mindset	Application of Tactics & Warfighting preparedness
...we can condition the body but if we can't condition...the mind to be mentally to think of the things that you're going go beyond what we're going to do	Survey Questions 6-8

Interview question #2 showed 51 excerpts for the theoretical framework. 31% (16) adaptive learning, 48% (25) reflective thinking, and 19% (10) transformative learning. Most leaders reflect on their ability to exercise cognitive agility and mental resilience in training compared to combat. Leaders perceived to be more adaptive and transformative for future challenge. Table 11 lists a couple interview quotes.

Table 11. Summary of findings for Interview Question 2

Interview Quote	Theoretical Framework
I feel comfortable in a combat situation...I would be able to execute	Adaptive
they're more mentally resilient in training so if they don't do well...they're okay with it.	Reflective
Constructive and Virtual Training which help stress that the help them practice...those skills...in training will translate over into combat to give you that type of resiliency	Transformative

Interview questions #3 and #4 results showed 116 interview comments for effective planning and staffs understanding the purpose of planning to exercise cognitive agility and flexibility in execution and decision making. Leaders understand, can identify why units are successful or unsuccessful, and how to resolve the gaps. However, leaders working within a staff suggests areas of improvement in flexible planning and are not quite where they want to be. Most responses identified staffs and leaders “fall in love with the plan” and “may not conduct the planning process” to include synchronizing the staff and wargaming the plan. Leaders want to continue to learn as situations shift (cognitive agility) and think beyond the situation for second and third order effects (mental resilience). Table 13 shows some interview comments.

Table 13. Summary of findings for Interview Question 3 and 4

Interview Quote	Literature Theme/ Survey Questions
...staffs do not understand that the purpose of planning is not to create the plan but to build that cognitive agility and flexibility to then execute...against an adaptive adversary.	Leaders as Learners Systems Thinkers
...your cognitive agility or flexibility understanding that yes you may have a really good plan but because of anything you've done into the system is going to cause it to alter	Leaders as Learners Systems Thinkers
sometimes we fall too much in love with the plan rather than moving on...	Survey Questions 16-19
...sometimes we fall in love with our plan...and don't necessarily recognize when it's time to...go with an alternative COA	Survey Questions 16-19

Interview question #5 and survey question #24 explored leaders' perceptions of the effectiveness of DFCs to prepare leaders for future challenges. 90% (53) perceived DFCs to better prepare them for future challenges. There were 9 comments addressed DFCs for leader preparation suggesting leaders understand the limitations of a DFC and leaders would use a DFC in conjunction with, or a Kriegspiel in lieu of to allow for greater demonstration of cognitive agility and mental resilience for future challenges. There were 39 comments from interview question #5 of which 47% (18) aligned with the literature theme and 53% (20) expanded on survey question #24. Table14 is an abbreviated summary of themed responses.

Table 14 Summary of Findings for Interview Question 5

Interview Quote	Theoretical Theme/ Survey Questions
DFCs provide us a false sense of...military awareness	Application of Tactics & Warfighting preparedness
...they're not making emotionally based decisions...When you start losing...hundreds of people, you start making emotionally based decisions.	Application of Tactics & Warfighting preparedness
...these are opportunities to rehearse our actions that will be necessary in combat.	Survey Question 24
we strip away the actual environment...in a sterile environment...a lot is lost.	Survey Question 24

Interview question #6 and #7 and survey question #14 and #15 asked leaders to assess their individual level of preparedness and ability to prepare Marines for future challenges. There were 55 comments extracted from the analysis. Collectively 61% (36) feel personally prepared for future challenges. In contrast, 44% (26) feel Marines trained at MCTOG are prepared. Comments from interview question #6 and #7 showed 47% (26) of leaders may not be as comfortable in their ability to prepare Marines or have the confidence that Marines have been trained for future challenges. Table 15 are a couple excerpts from the interview.

Figure 15. Summary of Findings for Interview Question 6 and 7

Interview Quote	Literature Theme/Survey Questions
I think any good Marine is confident in abilities	Leader's perception of preparedness
I never feel prepared for combat	Leader's perception of preparedness
I feel very prepared to help Marines	Preparing Leaders/Survey Question 14-15

A summary of the findings denotes leaders perceive to understand the need to be more cognitively agile and mentally resilient. Leaders may understand the importance of enhanced education and training to meet those needs. This could be done through modifications of DFCs or rigorous wargames, like Tactical Decision Games (TDG), aligned to future situations.

Discussion

The study results were shaped through two lenses. The research questions focused on preparedness for learning leaders and extensive demonstration and application of cognitive agility and mental resilience. Thus forming two major themes; leaders as learners and system thinkers, and cognitive agility and mental resilience training.

Learning leaders and systems thinkers can think and plan for mission execution; seeing the whole picture (Price & Lisk, 2014; Senge, 2006) as well as second and third order effects of decisions made (Ruben et al., 2017). Leaders are aware of preparedness deficits. Leaders expressed actions to increase cognitive agility and mental resilience skills. Implementations for recognition as learning leaders and systems thinkers, will start with education and training opportunities through focused DFCs, Tactical Decision Games (TDGs), and Kriegsspiel (KS) adding a rigorous cognitive component to stress thinking and mental resilience exercise to ensure leaders can go beyond failures and setbacks.

Leaders must have mental resilience to continue to focus amidst distractions, failure, and complexity (Allison, 2012). Leaders have a desire for increased application of cognitive agility and better demonstration of mental resilience in unknown, ambiguous situations. Leaders realize more education and training could ensure Marines are prepared for future challenges. Thus incorporating extensive critical thinking and planning for the information environment in their courses.

As implications for further research, MCTOG coordinated a DFC focused on social media as the problem set and information as a warfighting function for adversary consideration. Leaders planned, executed plans, and made decisions based on a cognitively focused challenges and disinformation narratives. Second, leaders participated in a Master Instructor Course 401(MIC) highlighting historical and current warfighting integration and dialogue. This transformative learning environment allowed leaders to examine, validate, or confirm their perceptions of the application of warfighting in future conflicts. Third, MCTOG planned a three phased Service Level Training Exercise (STLE) focused on leader training to demonstrate cognitive agility and mental resilience for 21st century conflict. This adaptive learning concept was presented as a starting point to incorporate educative development and strategic training designs (Training and Education Design 2030, 2023) to increase cognitive agility and mental resilience for future challenges.

3. Conclusion

Leaders' education and training perceptions for preparedness and plans helped to refine how leaders respond to traditional conflict and be ready to quickly transition to a future challenge situation. Leaders began this transition through creating or modifying wargames as a first step to prepare leaders. MCTOG leaders recognize deficits in education and training, understand the necessity to implement training that stretches cognitive agility and mental resilience, and education and training initiatives have been developed and implemented to allow leaders repeated practice to demonstrate cognitive agility and mental resilience for 21st century conflict. Decision Forcing Cases (DFC), Tactical Decision Games (TDG), and Kriegsspiels (KS) will focus on planning, mission execution and decision making in future

type situations. In addition, follow on research is being conducted to determine what do leaders already know and what do they need to learn in preparation for 21st century conflict.

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