

EXCEPTIONAL INFORMATION: RECOGNIZING THREATS AND
EXPLOITING OPPORTUNITIES

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General Studies

by

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ABSTRACT

EXCEPTIONAL INFORMATION: RECOGNIZING THREATS AND EXPLOITING OPPORTUNITIES, by Major Jason R. Wolfe, 90 pages.

Exceptional information (EI) is the manifestation of the unexpected. Historical examples of EI include Robert E. Lee's lost order and the recovery of the German invasion plans into France, known as the Mechelen Incident. The 1997 edition of Field Manual 101-5, *Staff Organizations and Operations*, accurately described EI as the emergence of an unanticipated or unpredicted event that may present an opportunity for success or reveal an immediate or impending threat. It is crucial therefore for reconnaissance units, commanders, and staffs to be able to identify and apply EI in order to seize opportunities and maintain the initiative on the battlefield to enhance mission success.

Applying a mixed methods approach using a combination of a qualitative literature review with a quantitative questionnaire distributed to human participants, this study examines the effect that the concept of EI plays in combat operations as reconnaissance units and staffs attempt to assist the commander in visualizing and understanding their environment.

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ACRONYMS

ADRP	Army Doctrine Reference Publication
CCIR	Commander's Critical Information Requirements
CGSOC	Command and General Staff Officer Course
EI	Exceptional Information
FM	Field Manual
RDSP	Rapid Decision Making and Synchronization Process

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CHAPTER 1

INTRODUCTION

Exceptional Information is a useful term and concept. I think that it is important to acknowledge the inherent uncertainty of combat. Reconnaissance is also important because it allows you to develop situational understanding through the integration of intelligence and operations. Developing the situation through action allows units to not only identify but also to create opportunities.

— LTG Herbert R. McMaster, e-mail correspondence to author

Army Doctrine Reference Publication (ADRP) 5-0, *The Operations Process*, defines Exceptional Information (EI) as, “information that would have answered one of the CCIRs if the requirement for it had been foreseen and stated as one of the CCIRs,” but the most-recently published ADRP 6-0, *Mission Command*, stipulates, “exceptional information is no longer defined.”¹ The concept itself seems to be a confusing and sometimes misunderstood term in the U.S. Army as well as within the reconnaissance community. It is with this in mind that the purpose of this study is to examine the concept of EI to evaluate and determine its relevance in today’s operational environment and its impacts on a commander’s ability to understand, visualize, describe, direct, lead, and assess.² Moreover, the researcher will study the concept to determine how it might be applicable in understanding if reconnaissance organizations within the Army are appropriately designed to facilitate the recognition and exploitation of EI. EI, as it stands now, is very rarely discussed and more importantly, understood. The Army’s leading

¹ Headquarters, Department of the Army (HQDA), Army Doctrine Reference Publication (ADRP) 5-0, *The Operations Process* (Washington, DC: U.S. Government Printing Office, 2012), 63.

² *Ibid.*, 11.

doctrine on terms, ADRP 1-02, *Military Terms and Symbols*, does not even mention the term.³ Furthermore, recent trends in Army doctrine show that there may be a belief that EI is either less important now in the current operational environment, or may simply be another term for Predictive Analysis or Commander's Critical Information Requirements (CCIR). For one to fully develop the impact of EI on a commander's ability to make timely and appropriate decisions that exponentially advance their goals and objectives, one first has to understand what it is and what it is not.

In short, EI is the manifestation of the unexpected. Doctrine has contained descriptions that have attempted to define, labelled, and explained EI over the past thirty years. Historical examples such as Robert E. Lee's "lost order" or the recovery of the German invasion plans into France, known as the "Mechelen Incident,"⁴ are themselves EI.⁵ As the 1997 edition of Field Manual (FM) 101-5, *Staff Organizations and Operations*, so accurately explains, "Exceptional information signals the occurrence of one or more unpredictable, extraordinary events, such as an unforeseen opportunity for success or an early warning of an impending emergency."⁶ It is crucial therefore for

³ Headquarters, Department of the Army, Army Doctrine Reference Publication (ADRP) 1-02, *Operational Terms and Military Symbols* (Washington, DC: U.S. Government Printing Office, 2015).

⁴ Robert Allan Doughty, *The Breaking Point: Sedan and the Fall of France, 1940*, (Hamden, CT: The Shoe String Press, 1990), 24.

⁵ James M. McPherson, *Crossroads of Freedom: Antietam* (Oxford, NY: Oxford University Press, 2002), 107.

⁶ Headquarters, Department of the Army (HQDA), Field Manual (FM) 101-5, *Staff Organization and Operations* (Washington, DC: U.S. Government Printing Office, 1997), 224, accessed January 22, 2017, <http://www.survivablebooks.com/free%20>

reconnaissance units, commanders, and staffs to be able to identify and apply EI in order to seize and maintain the initiative on the battlefield. EI however is not predictive analysis, which is a methodology that deals with dynamic adversary characteristics, and in some situations, enemy deception plans to forecast or predict possible future actions.⁷ Additionally, intelligence personnel utilize predictive analysis during mission analysis when conducting Intelligence Preparation of the Battlefield.⁸ EI, although very similar to predictive analysis, is a concept focused more on identifying and applying information that falls outside of the predictive analysis framework. Furthermore, predictive analysis seems to be more oriented towards quantitative analysis, while EI involves imagination and creativity for accurate and essential forecasting. EI is any information that would have made the commander's critical information requirements list if the requirement for it had been forecasted or predicted.⁹ In addition to its similarities to predictive analysis, EI also resembles and is tied closely to CCIR. However, unlike CCIR, EI associates with the recognition and exploitation of unforeseen opportunities and threats.

What then is CCIR? FM 6-0 C2, *Commander and Staff Organization and Operations*, defines CCIR as an “information requirement identified by the commander

manuals/1997%20US%20Army%20Staff%20Organization%20and%20Operations%20%20269p.pdf., 224.

⁷ Joint Chiefs of Staff, Joint Publication (JP) 2-0, *Joint Intelligence* (Washington, DC: U.S. Government Printing Office, 2013), 58.

⁸ Ibid.

⁹ HQDA, ADRP 5-0, 63.

as being critical to facilitating timely decision making.”¹⁰ A commander will identify critical information requirements or a CCIR list, but EI is a descriptive term of unanticipated information that tends to emerge during execution, highlighting the need to hone a planner’s imagination as well as a staff’s and reconnaissance units’ foresight to anticipate and identify.

To better illustrate EI, consider two boxers squaring off against each in a regulation-sized ring, wearing regulation size and weighted gloves. As these two equally matched pugilists carefully assess each other it becomes apparent to the first boxer that a shiny object is emanating from the dominant hand/glove of the other competitor. The shiny object hidden in the other boxer’s glove is a razor peeking out of a slight opening. In this example, the shiny object is the EI which represents a major change to the environment with respect to the enemy and the first boxer did well to identify it because that information presented him with an opportunity. A decision, albeit a hasty and abrupt one, must be made. Does he carry out the fight plan that his team developed during training camp, or does the EI force him to maneuver away from the threat in order to maintain his state of readiness for further action? If the boxer does not identify then apply the EI he risks incomprehensible damage to himself, not only for the current fight, but for future competitions as well.

The previous scenario may be helpful in understanding EI and why it is so important. Furthermore, the story of the two boxers also illustrates the difference between

¹⁰ Headquarters, Department of the Army (HQDA), Field Manual (FM) 6-0, *Commander and Staff Organization and Operations*, C2 (Washington, DC: U.S. Government Printing Office, 2016), 69.

EI and CCIR. In this context, CCIR would have focused on any number of very important factors that fit the framework of a regulation-style boxing match whereby both combatants adhere to the Marquis of Queensberry rules. The shiny object described is almost inconceivable within the framework of the sanctioned boxing match, therefore making it EI, but it must lead to an immediate adjustment decision by the competitor. In summation, EI is a term that describes the mysteries of chance and friction and is useful to planners, staffs, and reconnaissance units as they try to interdict and combat potential ill effects caused by unforeseen threats or opportunities. Dr. Rob McClary, seminar leader at the University of Foreign Military and Cultural Studies, and an authority on intuitive decision making, revealed in an interview with the researcher that there is a significant differentiation between EI and CCIR because EI is unexpected as opposed to anticipated.¹¹ One does not have to look far or deep into history books or the nation's current operations in Iraq or Afghanistan to see examples and the effects of EI at work.

Many of the issues encountered during the research of this topic relate to the ambiguity surrounding the concept itself. As mentioned at the beginning of this chapter, ADRP 1-02 does not define it, while ADRP 6-0 says the term "is no longer defined."¹² Furthermore, although the impacts of not identifying EI are enormous, and in some cases catastrophic, there seems to be no plans in place to ensure that military personnel become educated or trained in identifying or applying it.

¹¹ Rob B. McClary, Ph.D., Seminar Leader, University of Foreign Military and Cultural Studies, interview with author, Fort Leavenworth, KS, March 31, 2017.

¹² Headquarters, Department of the Army (HQDA), Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command*, C2 (Washington, DC: U.S. Government Printing Office, 2014), 12.

Problem Statement

Therefore, the problem that emerges is: how do commanders, their staffs, and reconnaissance units define, identify, and apply EI to enhance mission success?

Historical Context of Problem

As discussed above, the term EI, along with any narrative associated with the term has changed since 1989 to the point where it “is no longer defined”.¹³ This is important because a commander, staff, or reconnaissance unit must first be able to know what something is, if they are going to be able to identify then apply it. Therefore, the author made an effort to contact the Combined Arms Doctrine Directorate in Fort Leavenworth, KS in the hopes of gaining clarity into the evolution of EI. Although chapter 4 covers this topic at greater length, it is important to note here that doctrinal writers were charged with purging many formally defined terms during the transition to doctrine 2015.¹⁴ This occurred because there was an over-arching belief at the time that doctrine had too many acronyms and defined terms and EI, may have been a victim of being synonymous with CCIR therefore making the term vulnerable to doctrinal exclusion. With that, this study will examine and try to determine if the removal of the term nullifies the concept or reduces its importance to a commander, a staff, or reconnaissance units in today’s operational environment in their attempt to seize opportunities or prevent catastrophes. Additionally, history is ripe with examples of what

¹³ HQDA, ADRP 6-0 C2, 12.

¹⁴ Charles Schrankel, Mission Command Division Chief, Combined Arms Directorate, e-mail correspondence with author, November 15, 2016.

seems to be a general inability for reconnaissance units and staffs to be able to adequately identify then apply EI during the execution of operations. However, chapter 2 examines the truthfulness of this premise.

Research Question

The aforementioned problem is foundational to this study's primary research question, which is: can commanders and staffs mitigate challenges and exploit opportunities in combat operations more effectively using the concept of EI? From this initial question, three secondary questions arise:

R1. How is the term EI defined in Army doctrine and used by Army commanders, planners, and reconnaissance units?

R2. How do Army planners, reconnaissance units, and commanders identify EI during the planning process and throughout mission execution?

R3. How effectively do Army planners and commanders apply EI to operations during planning and execution?

Theoretical Framework

In order to appropriately answer the aforementioned research questions, the Cynefin Framework will be the theoretical model utilized as a lens through which to view the data collected. Developed by Dave Snowden then updated with the assistance of Mary Boone, the Cynefin Framework helps organizational leaders understand their external environment and identify relationships of variables and/or systems within the

construct of a five-domain model.¹⁵ The five domains are: Simple and Complicated, which fall into the Ordered side of the framework. On the other side of the framework resides Complex and Chaotic.¹⁶ The fifth domain exists in the center of the other four domains and is the “Disorder” domain. The Cynefin Framework, which is discussed further in chapter 2 as part of the literature review, was chosen as the theoretical framework for this study because it provided the researcher a focus to identify the appropriate literature to be reviewed. Additionally, the framework also helped the researcher target EI as it would be recognized in one of the five domains by a commander, staff, or reconnaissance unit if they had the ability to use it. Therefore, if a piece of information leads to an event that affects the ordered process of an organization or unit in such a way that the organization is thrust into the complex or chaotic domain or environment within the Cynefin Framework, then the information leading to that event would be considered, for the purposes of this study, EI.

Key Assumptions

Key assumptions applicable to the study are that doctrine writers do not have enough information from the force to justify defining and describing EI, nor is it relevant to draw links to CCIR or staff processes. Furthermore, EI must be defined, understood, identified, and applied or the success of future operations in all levels of war may become

¹⁵ H. William Dettmer, “Systems Thinking and the Cynefin Framework: A Strategic Approach to Managing Complex Systems,” Global Systems International, 2011, accessed January 8, 2017, <http://goalsys.com/books/documents/Systems-Thinking-and-the-Cynefin-Framework-Final.3.pdf>, 17.

¹⁶ Dettmer, 10.

more difficult than it has to be. An additional assumption is that to successfully exploit EI, commanders, their staffs, and reconnaissance units have to be knowledgeable of their operational environment, yet be able to think adaptively (anticipating threats and opportunities) in order to successfully foresee information or events that would be considered EI. Furthermore, Army commanders and planners are routinely surprised during operational execution by threats and opportunities that emerge.¹⁷ A better understanding of EI may improve Army planners' and commanders' ability to balance the art of command with the science of controlling and envisioning the unknown.

Definitions

A number of terms associated with this paper may be unknown to the public or even in certain military circles. Additionally, EI and CCIR have been referenced, defined, and remain at the heart of this study. Related terms are defined as follows:

Common Operational Picture: Common operational picture, in its best form, is a single display of relevant information within a commander's area of interest, personalized to fit their requirements and based on common data and information for shared understanding.¹⁸

Military Decision Making Process: The military decision making process is a planning methodology utilized by staffs in order to assist them as they strive to

¹⁷ McPherson, 107.

¹⁸ HQDA, ARDP 6-0 C2, 32.

understand their situation and mission.¹⁹ Development of a course of action and the production of an operation order are deliverables of this planning process.²⁰

Priority Information Requirements: Priority information requirements are intelligence requirements that commanders and staffs must have in order to better understand the enemy and other mission variables within an organization's operational environment.²¹ These requirements are a priority because they are necessary to help commanders and staffs as they hope to immediately fill crucial, identified gaps in their understanding of the enemy in the current environment.²²

Rapid Decision Making and Synchronization Process: Rapid decision-making and synchronization refers to the process that commanders and staffs use during the execution of an ongoing operation.²³ During this process, leaders are able to use their experience, creativity, and intuition to quickly reach situational understanding of their ever-changing environment.²⁴

¹⁹ HQDA, ADRP 5-0, 35.

²⁰ Ibid., 37.

²¹ HQDA, FM 6-0 C2, 70.

²² Ibid., 108.

²³ Ibid., 191.

²⁴ Ibid.

Situational Understanding: Situational understanding refers to a commander and staffs' ability to adequately analyze relevant and crucial information concerning relationships among the mission variables in order to facilitate decision-making.²⁵

Limitations

There were three limitations to this study. The first limitation revolved around finding adequate human and literary sources that identify EI and detail the impacts that it has had and continues to have on historical and current operations. The second revolves around the definition of EI and the narrative associated with it in doctrine and the impacts of its minimization within the military community. The reduction of the term in doctrine and lack of content associated with EI in scholarly works limited this researcher's ability to find an adequate number of sources defining and discussing the concept. Therefore, to satisfactorily research this topic and answer the research questions, the researcher centered the focus on extrapolating EI from historical examples, case studies, as well as articles written and submitted from U.S. training centers. The final limitation of this study was ensuring an adequate and impartial random sampling of Command and General Staff Officer Course (CGSOC) faculty and students to determine a general knowledge of what they believe EI to be. The random sampling however, could not ensure that only students with combat arms or military intelligence backgrounds would participate.

²⁵ HQDA, FM 6-0 C2, 217.

Scope and Delimitations

The scope of this study will assess the feasibility of re-integrating EI into the Army operational process, and by extension recommending the development of relevant, tough training and education to assist key leaders Army wide as they attempt to adequately define, identify, and apply EI in Army operations. What follows is an examination of the implications on the force and operations when commanders, staffs, and reconnaissance units do not adequately understand, identify, and apply this very real concept and then consider the critical factors related to each. To accomplish this, the study will resort to historical examples, when necessary, in order to describe and assess relevant correlations and effects of opportunities missed. Furthermore, it may be appropriate to briefly discuss some theories, which have been researched within the civilian sector, that facilitate a greater understanding of how to identify EI. By presenting these theories, the researcher may better and more clearly draw links from differing perspectives to the concept of EI.

Significance of the Study

The results of this study should bring to light gaps with regards to how Army commanders, staffs, and reconnaissance units identify information. By doing so, greater effort can be directed towards filling those gaps through further research into the role of EI as it pertains to doctrine and its implementation into institutional, organizational, and operational processes. In an operational environment in which the pace of change seems to increase, a commander's ability to understand, visualize, describe, direct, lead, and

assess will continue to be more challenging and vital.²⁶ EI is a concept that will help planners and commanders understand the art and science of anticipating the unknown friction points that lie ahead.

Proposed Methodology

This will be a mixed methods study using a combination of a qualitative literature review, a quantitative questionnaire distributed to human participants, and semi-structured interviews. Significant studies examined include work from the Center for Army Lessons Learned, Center for Army Leadership, Combat Studies Institute, and the U.S. Army Combined Arms Centers (National Training Center, Joint Readiness Training Center, and Joint Multinational Readiness Center). Additionally, the use of a quantitative survey and questionnaire as a primary research tool, along with expert insight and Army doctrine will add clarity to the thesis.

Summary

As the primary investigator in this study and an armor officer who held the positions of a scout platoon leader and tank company commander, the researcher learned, mostly through his own failures, the importance of identifying EI. Additionally, time spent as an observer controller at the Joint Readiness Training Center revealed the detrimental effects directly associated with a brigade, battalion, and/or squadron staff's inability to understand EI. These organizations, which consist of close to 5,000, 850, and 500 personnel respectively, are the tactical instruments of the U.S. military, and must be

²⁶ HQDA, ADRP 5-0, 11.

able to adequately mitigate challenges and seize or exploit opportunities that tied directly to EI. The consequences of not identifying then applying EI at the Joint Readiness Training Center were very destructive to each unit's ability to sufficiently and successfully execute decisive action operations because staffs could not adequately support their commander's ability to understand, visualize, describe, direct, lead, and assess. It is only now, as a student at CGSOC that an opportunity presented itself to view some of those lessons learned through different and more mature lenses in order to see the importance of being able to define, identify, and apply EI. This study was initiated from this perspective and with those reasons in mind. The hope was to use whatever knowledge and understanding gained during the research of this very difficult concept to enlighten and inform others of any and all gaps gleaned from the literature review. Furthermore, this study contained descriptions providing clarity during the course of the literature review by determining the level of understanding regarding EI within the sampled population of faculty and students currently at the Command and General Staff College at Fort Leavenworth, KS. Ultimately, the hope is that the Army can fill those gaps through education at the institutional and operational levels to better define, identify, and apply EI into current and future operations in order to prevent the unthinkable from happening.

CHAPTER 2
LITERATURE REVIEW

Introduction

This study contains descriptions of the concept of EI along with a review of the appropriate literature with the hope of better understanding its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. It is a topic that demands extensive study because of the importance it plays in today's military operations. Therefore, the rest of this chapter examines several key sources written about EI.

This chapter is organized along the lines of the three secondary research questions, defining, identifying, and applying EI (see table 1). The literature includes military and civilian articles, books, case studies, essays, and Army doctrine. Of the forty-four pieces of literature examined, eleven of them specifically mention or discuss EI. The remainder of the literature describes information or events that are EI but not labelled as such. Therefore, significant attention was oriented on those pieces of work.

Table 1. Literature Review

	Books	Articles	Doctrine	Monographs
Defining EI	3	2	8	5
Identifying EI	4	3	5	4
Applying EI	4	2	2	2
Total (44)	11	7	15	11

Source: Created by author.

Define

Only a few sources actually define EI and the majority of those that do are doctrine. In the conduct of this literature review, the definition attributed to the concept of EI has varied extensively. FM 6-0, *Mission Command: Command and Control of Army Forces*, dated 2003, spent a good deal of text thoroughly defining EI. FM 6-0 defined EI as “information that would have answered one of the commander’s critical information requirements if the requirement for it had been foreseen and stated as one of the commander’s critical information requirements.”²⁷ Furthermore, in Appendix B, the manual discussed EI in depth, giving the reader a deeper understanding of what EI is: “Exceptional information results from an unexpected extraordinary event, such as an unforeseen opportunity for success or an early warning of an unforeseen threat.”²⁸ Additionally, this manual spoke directly to the overall problem of this study, at least in part, through the clarity of its narrative and by the actual definition of EI. Following the publication of this field manual, the number of sources that adequately define EI and give the reader an understanding of what the concept actually is, diminished greatly. In contrast, FM 101-5, published six years before, masterfully detailed, and described the concept of EI.

The 1997 version of FM 101-5 addressed EI at greater length than FM 6-0. Although it does not go into depth concerning the identification or application of EI, it

²⁷ Headquarters, Department of the Army (HQDA), Field Manual (FM) 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. Government Printing Office, 2003), 84.

²⁸ *Ibid.*, 208.

was the best source at defining it. FM 101-5 defines EI as “specific and immediately vital information that directly affects the success of the current operation.”²⁹ Additionally, this field manual goes a step further and draws a distinction between EI and CCIR: “Unlike critical information, EI is neither published nor explicitly stated; rather, it must be recognized as vital by tactically and technically competent subordinates and staffs.”³⁰ This distinction is a critical component of understanding the definition of EI, as many authors and sources do not adequately detail the differences between the two concepts. FM 101-5’s definition of EI is further clarified through the description given, saying “Exceptional information signals the occurrence of one or more unpredictable, extraordinary events, such as an unforeseen opportunity for success or an early warning of a pending emergency.”³¹ The field manual goes a step further and gives a number of additional descriptions of EI: “exceptional information is unexpected, unplanned, and situation-dependent as well as an immediate priority for command and staff action.”³² FM 101-5 was the most comprehensive source for defining EI encountered during this study. In fact, this manual, long since out of date, offered the most detailed definition of EI, and above all other sources reviewed during this study, tied directly back to the problem statement and initial research question. Furthermore, its use of in depth descriptions and narrative helped the reader understand the concept with the only

²⁹ HQDA, FM 101-5, 224.

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

weakness being that it did not delve deeply into the issue of what a staff or commander must do once EI has been identified. Doctrine however, was not the only source encountered during this study which attempted to define EI.

Efforts made through scholarly research have also tackled the concept of EI, albeit not extensively. In the 1992 monograph, “CCIR: Reality versus Perception,” Major Michael R. Barefield discusses EI within the context of categorization in the midst of emerging doctrine.³³ Written during a time when there was great focus on information management, the author describes a level of confusion in differentiating between CCIR and EI.³⁴ Major Barefield utilizes the doctrine of the time to define EI, then goes on to describe it as “information produced because of an unforeseen or unexpected event and the commander must know it without delay.”³⁵ Furthermore, the author goes on to define and describe EI saying, “awareness of exceptional information could enable success or produce failure on the battlefield.”³⁶ “CCIR: Reality versus Perception” tackles the difficulties at the time of defining, describing, then categorizing EI in the broader context of commander’s critical information requirements.³⁷ Moreover, the author does not focus necessarily on identifying EI by staffs or with reconnaissance assets, nor does the

³³ Michael R. Barefield, “Commander’s Critical Information Requirements (CCIR): Reality Versus Perception” (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 1992), accessed November 18, 2016, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA264509>, 34.

³⁴ Ibid., 35.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ibid.

researcher engage the reader about the application of EI. However, he does bring to light some of the major concerns regarding information management that were prevalent during the time. To this point, the researcher raises concerns which tie directly back to the secondary research question pertaining to the definition of EI and its utilization by commanders and staffs. Other monographs encountered during this study raised some of the same questions and concerns as Major Barefield concerning EI, but with differing opinions and recommendations for its future use.

In his monograph titled, “CCIR for Complex and Uncertain Environments,” Major Marc Spinuzzi writes as much about defining and describing EI as any non-doctrinal source encountered during this study. He does this, as did the previous literary source, with the doctrinal definition. Spinuzzi however, ties EI to a belief that staff and subordinate actions are key to understanding it if they are going to identify it, saying EI “can only be recognized by subordinates who understand the commander’s intent and share his SU (Situational Understanding: A commander and staffs’ ability to adequately analyze relevant and crucial information concerning relationships among the mission variables in order to facilitate decision making).”³⁸ Furthermore, Spinuzzi adds to the understanding of what EI is when he clearly differentiates between EI and CCIR saying, that EI is “constantly compared to CCIR, yet exists in a different hierarchy.”³⁹ With that said, he goes on to add this caveat regarding the criticality of defining and understanding

³⁸ Marc A. Spinuzzi, “CCIR for Complex and Uncertain Environments” (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 2007), <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA470928>, 14.

³⁹ Ibid., 26.

EI saying, that although EI is “not initially identified as critical to decision making, exceptional information represents a significant departure from the commander’s visualization and should be handled just like CCIR.”⁴⁰ Although the focus of Spinuzzi’s monograph revolves around the development of the CCIR in complex environments and is not concerned with the identification and subsequent collection of EI by reconnaissance units, he clearly defines EI by describing how it had been historically organized and prioritized with regards to information management. Unfortunately, this may have led to a great amount of confusion over the definition of the term and possibly helped lead to its exclusion from doctrine. This monograph however, provides a non-doctrinal source with which to analyze the problem and initial research question. In order to adequately explore this study’s other research questions, the researcher reviews sources that focus on the identification of EI.

Identify

In addition to being one of the few sources to effectively define EI, the 2003 version of FM 6-0 was also a great resource in attempting to focus on the importance of identifying EI. The field manual makes it clear that subordinate commanders and staffs are a crucial element in identifying EI.⁴¹ Additionally, the narrative within Appendix B of FM 6-0 further elaborates on the requirement that subordinates and staffs have in identifying EI because of its unforeseen and unexpected nature therefore making

⁴⁰ Spinuzzi, 26.

⁴¹ HQDA, FM 6-0, 208.

recognition of it, vital.⁴² Furthermore, the manual also distinguishes EI from CCIR in that EI is not published. Moreover, unlike CCIR, the requirement for EI is also unanticipated.⁴³ The section concludes by annotating the requirement for the commander and subordinate commanders to share a common situational understanding and stipulating that subordinates must thoroughly understand the commander's intent.⁴⁴ Although the field manual does not specify the consequences that would arise if commanders and staffs do not apply EI, the 2003 edition of FM 6-0 does a good job of discussing the theory behind the urgency surrounding identifying EI. This field manual also offers relevant insight towards this study's second research question and provides pertinent information for analysis regarding a commander and staff's ability to identify EI to enhance mission success. In order to gain greater insight into identifying EI, it is this researcher's belief that historical examples must be studied.

History is littered with examples of units either identifying EI or failing to identify EI. In the interest of brevity, this section only examines a few of those historical examples. In the book, *The Korean War: Volume 2*, Dr. Allan R. Millett details an instance of a unit identifying EI during combat.⁴⁵ In late October 1950, the Republic of Korea's 1st Division met heavy enemy resistance west and north of Unsan.⁴⁶ Believing

⁴² Ibid.

⁴³ HQDA, FM 6-0, 208.

⁴⁴ Ibid.

⁴⁵ Korea Institute of Military History and Allan R. Millett, Ph.D, *The Korean War: Volume 2* (Lincoln: University of Nebraska Press, 2001), 117.

⁴⁶ Ibid.

this to be the last ditch effort of the North Korean People's Army to resist United Nations and Republic of Korea forces before the culmination of the conflict, members of the Republic of Korea, led by Brigadier General Paik Sun Yup, captured a Chinese combatant. This detainee proceeded to detail the composition and disposition of Chinese forces, which were situated a terrain feature away.⁴⁷ This of course, is a very clear example of identifying EI, as there were no reports at that time of actual Chinese troop involvement within Korea. The Republic of Korea's 1st Division commander then proceeded to immediately warn American forces about Chinese military involvement in Korea based on information gathered from a captured Chinese prisoner.⁴⁸ This warning to Eighth Army personnel, postured at their forward command post, is a second instance of EI mentioned in the book. The notification of the information itself should have been considered EI from the standpoint of the Eighth Army. This is substantiated by the fact that the author of the book clearly states that the captured Chinese soldiers were interrogated by members of General Walton Walker's staff at the forward command post, but they refused to believe that China had entered the war.⁴⁹ Although there is no information within the book that defines, describes, or details what EI is, few other sources encountered during this review gave clear and factual instances of real-world identification. The examples in this source point directly back to the issues asked in this study's second research question pertaining to the identification of EI, not only in the

⁴⁷ Korea Institute of Military History and Millet, 117.

⁴⁸ *Ibid.*, 2:118.

⁴⁹ *Ibid.*, 2:119.

planning process, but also throughout mission execution. The next resource expands further upon the impacts of not adequately identifying EI.

In the book *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, Matt Matthews details a number of accounts where EI was identified and applied, and in some cases not applied, by the Israeli Defense Forces. Although the author does not refer to EI by name, focus on the concept at large, or even tie in the importance that reconnaissance plays in identifying EI, he clearly describes the importance of applying EI. One example related to the importance of applying EI, concerns Hezbollah's use of an "Iranian-produced C-802 NOOR guided missile against an Israeli naval vessel" in response to Israeli Defense Forces' initial actions in the war.⁵⁰ This action, along with the lethality and range of the weapon system, is clearly EI and should have caused some sort of an adjustment decision regarding the prosecution of the war from the Israeli standpoint. Additionally, it should have alerted the Israeli Defense Forces that Hezbollah was better prepared and equipped than they had originally thought.⁵¹ *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War* is an excellent source that details the role of EI within an operational setting. Although it does not refer to the overall impact that reconnaissance may have had in identifying and ultimately applying EI, the author does an outstanding job of highlighting the impacts associated with applying identified EI from Hezbollah's standpoint and the negative impacts of not identifying EI from the Israeli Defense Forces

⁵⁰ Matt M. Matthews and Combat Studies Institute, OP 26, "We Were Caught Unprepared: The 2006 Hezbollah-Israeli War" (The Long War Series, Occasional Paper 26. Fort Leavenworth, KS: CreateSpace Independent Publishing Platform, 2012), 38.

⁵¹ Ibid.

staff's perspective. The next literature source reviewed examines the doctrinal role that a staff plays in identifying EI.

Major David Ike, in his 2014 monograph, "Bridging the Chasm: A Comparison of the Army's 1997 and 2012 Doctrinal Planning Processes," discusses the importance that a staff plays in identifying EI. He writes extensively of a staff's need to understanding their operational environment and the necessity to "emphasize anticipation of change."⁵² Furthermore, he discusses EI or, information that is otherwise considered exceptional, in relation to the Rapid Decision Making and Synchronization Process (RDSP) saying there is a need to "respond to an unanticipated decision, especially when conditions fundamentally change."⁵³ Although Ike does not focus at large on the topic of EI by name, nor does he explore the importance that reconnaissance and sensors play into identifying EI, he does however, tie EI and its identification to the overall success of a staff operating in its current environment. Furthermore, Ike puts a premium on the education and training of staff processes which, by extension, could aide future staff members better identify EI.⁵⁴

Major David Pendall's article, "Persistent Surveillance and Its Implications for the Common Operating Picture," is another example of a source focusing on the importance and necessity of identifying information considered EI. In the article, Pendall

⁵² David M. Ike, "Bridging the Chasm: A Comparison of the Army's 1997 and 2012 Doctrinal Planning Processes" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 2014), accessed November 18, 2016, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA614172>, 26.

⁵³ Ibid.

⁵⁴ Ibid.

links the amount of identified EI to persistent surveillance and its subsequent integration into the Common Operational Picture (a single display of relevant information that a commander wants to see that is based on common data and information for shared understanding).⁵⁵ To this end Pendall says, “Exceptional information increases when persistent surveillance capabilities integrate into the COP, particularly as near-real-time effects-sensing generates feedback.”⁵⁶ In addition to describing the importance of identifying EI through the broader context of persistent surveillance utilization, the author uses doctrine to define EI and, unlike many other sources, indirectly discusses a sensor’s role in identifying EI. This source ultimately gets at the overall problem of the study and does examine the second research question from a unique lens and framework. The next source studied during this literature review takes the idea of identification of EI and frameworks to an entirely new level.

Thus far, the thesis shows that identifying EI is a very difficult proposition for commanders, staffs, and reconnaissance units. This may be due to the difficulty inherent in trying to foresee the unforeseen or determine information or enemy actions, within an operational environment. In the article, “Systems Thinking and the Cynefin Framework: A Strategic Approach to Managing Complex Systems,” H. William Dettmer discusses a “sense-making framework,” which assists decision makers in understanding their

⁵⁵ David W. Pendall, “Persistent Surveillance and Its Implications for the Common Operating Picture,” *Military Review* 85, no. 6 (2005): 41.

⁵⁶ *Ibid.*

particular environment in order to ultimately make the best decisions possible through the utilization of a four-domain model (see figure 1).⁵⁷

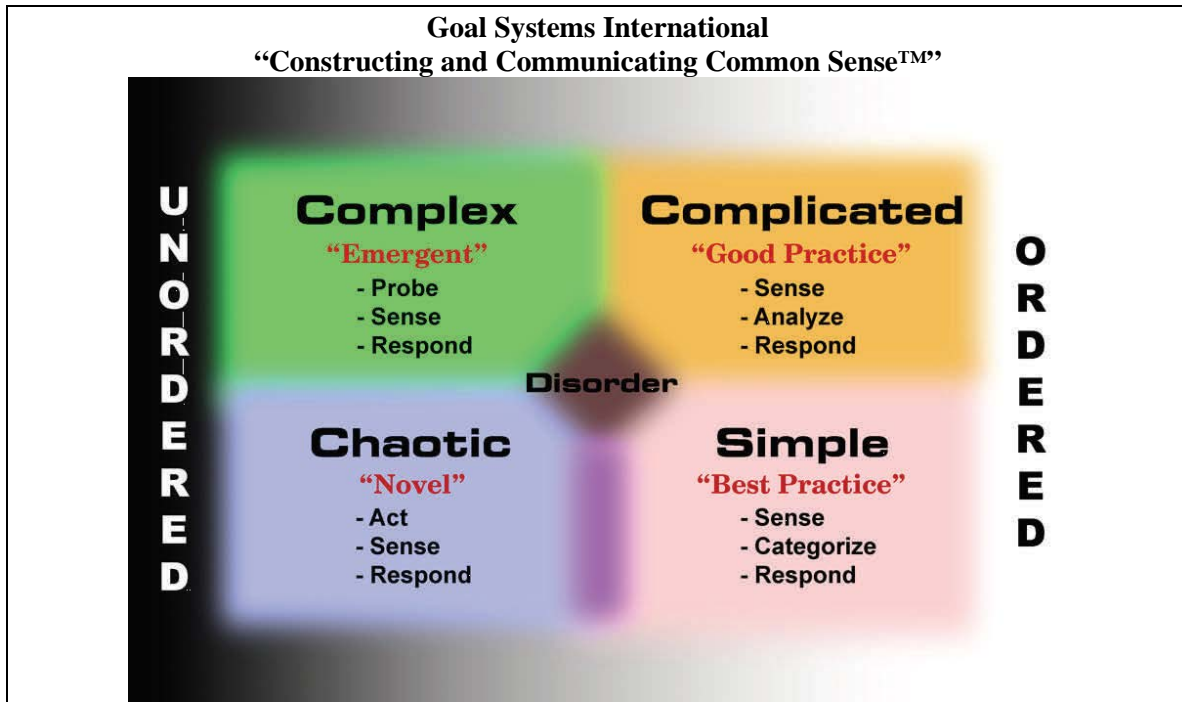


Figure 1. The Cynefin Framework

Source: William H. Dettmer, “Systems Thinking and the Cynefin Framework: A Strategic Approach to Managing Complex Systems,” Global Systems International, 2011, accessed January 8, 2017, <http://goalsys.com/books/documents/Systems-Thinking-and-the-Cynefin-Framework-Final.3.pdf>, 9

The model is categorized “Simple, Complicated, Complex, and Chaotic” all of which surround, “Disorder,” a fifth domain.⁵⁸ Within the military context, EI may lie between the unordered Complex and Chaotic domains of the framework. Although the

⁵⁷ Dettmer, 10.

⁵⁸ Ibid.

author does not mention EI, how to define it, or how to apply information that would be considered EI, he does offer a possible solution of how to best identify it from a civilian perspective.⁵⁹ As discussed in chapter 1, the Cynefin Framework provided the reader and this researcher the theoretical framework with which to consider how commanders, staffs, and reconnaissance units can possibly identify EI. By doing this, the Cynefin Framework also became the means to properly address the research problem as well as the secondary research questions. During the course of this study, the researcher sought and studied sources that focused on the research problem, the primary research question, and the first two secondary research questions. In an attempt to answer the third secondary research question, the researcher examined sources that detail how EI is to be or was applied during planning and mission execution.

Apply

As previously mentioned, it is this researcher's belief that historical examples offer some of the best sources for recognizing instances of applying EI. The actions taken by key military personnel in post-World War I Germany reveals one such example. The German military of the 1920s was decimated by the effects of war and consequences resulting from the Treaty of Versailles that limited their overall strength and placed stringent controls on all military-related activities.⁶⁰ In their book, *Military Innovation in the Interwar Period*, Williamson Murray and Allan R. Millett discuss the exploits of

⁵⁹ Ibid.

⁶⁰ Williamson Murray and Allan R. Millett, eds., *Military Innovation in the Interwar Period*, rev. ed. (Cambridge: NY: Cambridge University Press, 1998), 36.

German Chief of the General Staff, General Hans von Seeckt, as he sought to capture lessons learned from World War I through his revamped and updated officer corps.⁶¹ To do this, von Seeckt established at least fifty-seven think tanks or committees to explore in part what situations had arisen during the war that were unforeseen or unanticipated prior to the start of the war.⁶² Simply put, von Seeckt was searching for EI. Although the editors' intent was not to examine EI as a concept or its relationship to staff processes or reconnaissance operations, this section of the book is an excellent example of a military leader understanding the importance of unforeseen opportunities and mitigating risk associated with the enemy threat. In doing this, von Seeckt prioritized the importance of EI and applied it the development of doctrine, which some might argue, enhanced the overall proficiency of the German war machine.⁶³ There can be little doubt that von Seeckt's actions are a clear illustration of applying EI after it has been identified. However, as this researcher shows, nineteenth century history provides a strong example of EI not applied appropriately.

In his book, *Antietam: The Battle that Changed the Course of the Civil War*, James M. McPherson describes the best and most thorough account of the identification and application of EI that this researcher has reviewed during the course of this study. In his book, McPherson notes that on September 9, 1862, General Robert E. Lee issued Special Orders No. 191 to his subordinate commanders detailing a battle plan to attack

⁶¹ Ibid.

⁶² Ibid., 37.

⁶³ Ibid.

Harpers Ferry and a movement plan for the rest of his army in support of the aforementioned attack.⁶⁴ Those orders immediately became EI for General George B. McClellan and the Union Army when a copy fell into Union hands at a farm outside a small town in Maryland. Once identified and confirmed, the EI was rushed to General McClellan himself who ultimately acted upon it, although not immediately, thereby minimizing its effect.⁶⁵ McPherson states that instead of immediately issuing movement orders to his subordinate commanders to interdict Lee's army, McClellan waited at least six hours to do so and erred further by restricting any initial troop movement until the next morning.⁶⁶ McPherson's work details the remarkable fortune laid at the feet of General McClellan and the consequences of the Union general's inaction or lack of immediate application. Furthermore, this book details the importance played by the Confederate Army's reconnaissance units at identifying EI as Jeb Stuart became aware of the "Lost Order," and immediately took action to notify Lee.⁶⁷ Stuart's application of EI no doubt helped Lee consolidate his forces, negating the annihilation of the Army of Northern Virginia.⁶⁸ During the course of the literature review, this researcher could not find a clearer example of the importance of identifying and applying EI. Moreover, because this particular case focuses so clearly on the role played by commanders, staffs,

⁶⁴ McPherson, 106.

⁶⁵ Ibid., 109.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid., 111.

and reconnaissance units with regards to EI, it thereby hits at the heart of this study's overall problem and the full range of research questions.

Summary

Much of the research undertaken during this study netted many more sources that focused on or related to the defining and identifying of EI as opposed to its actual application. There were however, a few sources, reviewed by this researcher that detailed the real-world application of EI as previously described. During the course of the literature review, a number of gaps were identified. Most of those gaps do not come from what many authors consider the confusing nature of the term itself, but from properly defining and describing EI. Additionally, there are some sources, which discuss the prioritization and categorization of EI. These discussions resided within the greater context of determining what information should be considered CCIR, and not necessarily the importance of EI itself. This may have led to a minimization of the term within doctrine as annotated earlier in this chapter. However, the removal of the term does not take away from the importance of the concept, nor does it negate its cruciality in the current operational environment. Furthermore, during the course of the literature review, this researcher believes that gaps remain in a staff's ability, as well as that of reconnaissance units, to identify EI. This may be related to the fact that no source material was found describing best practices concerning the training and education of military personnel to recognize EI.

Another gap concerns the utilization of reconnaissance units as a crucial element for identifying EI. Most of the literature reviewed detailed the importance of a staff's ability to receive and manage CCIR, and in some cases, EI. However, little information

studied (outside of Stuart's actions in 1862) clearly revealed the importance that reconnaissance has in creatively identifying then reporting EI. Moreover, little was found regarding the application of EI. This may be due to the fact that the term is no longer officially defined within doctrine although the concept is still a crucial aspect in current operations. Therefore, it stands to reason that once EI has been identified, it needs to be applied. How commanders and staffs do this is unknown.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

The research method for this thesis was a mixed method research approach using a qualitative literature review, a quantitative questionnaire distributed to human participants, and semi-structured interviews. The theoretical framework used was the Cynefin Framework. The qualitative literature review was utilized because it allows for a detailed examination of EI as it relates to today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead and assess. Additionally, the qualitative literature review helped the researcher understand what has been written about EI in doctrine and scholarly research, and determine how (or if) it has been used by senior leaders and applied by analysts.

This thesis used a simple survey instrument in the form of a questionnaire to human participants. The data extrapolated was analyzed and correlated to corroborate this researcher's belief that EI, as a term and concept, is not understood because it is not properly defined nor are commanders, staffs, and reconnaissance assets able to identify and apply it. Furthermore, the survey assessed CGSOC faculty and student understanding of EI.

The utilization of semi-structured interviews focused on retrieving expert perspectives in three areas. The first focused on the evolution of EI as a term and concept in doctrine, while the second sought to gather insight from a senior commander's point of view. The third centered on gleaning insight from an analyst point of view.

Moreover, the qualitative literature review, quantitative questionnaire distributed to human participants, and semi-structured interviews helped address the primary and secondary research questions listed in chapter 1 of this study. These research questions were the groundwork for the development and administration of the seven statements that comprised the quantitative questionnaire. Additionally, the Cynefin Framework was chosen as the theoretical framework because it provided the researcher a focus to identify the appropriate literature to be reviewed and helped target EI, as it would be recognized in one of the five domains by a commander, staff, or reconnaissance unit if they had the ability to use it. The remainder of this chapter focuses on the methodology and design, the aforementioned questionnaire, and the steps taken to ensure the protection of the subjects.

Methodology and Design

The qualitative literature review portion of the mixed method research approach was deemed most appropriate for this study because it allows the researcher to review a wide variety of current and historical sources, written from various perspectives, in order to identify gaps concerning defining, identifying, and applying EI within the literature. Furthermore, this approach allowed the researcher to add depth to the study by conducting the aforementioned statistical and descriptive analysis via the quantitative questionnaire utilizing a Likert Scale, which added to the simplicity of the survey while making it more user friendly. Moreover, unlike other more focused approaches, a qualitative literature review combined with the quantitative questionnaire and semi-structured interviews gave this study an all-encompassing framework through which to answer the research questions. The semi-structured interviews were intended to leverage

insight from highly regarded experts who have doctrinal, intuitive analysis, and senior leaders' points of view. What follows is a brief overview regarding the instrumentation utilized during the quantitative portion of this study.

Instrumentation

This survey was designed to meet the intent of soliciting responses to seven questions from at least 10 percent of CGSOC students and forty faculty members during the 2016-2017 academic year based upon the following factors: (1) accessibility of CGSOC students and faculty members; and (2) experience level of both contributing elements, especially the faculty. Appendix C of this thesis contains the sample E-mail Introduction Letter to Students. The first six questions of the survey will deal with general aspects of the primary research question, addressing the use of EI to predict, gain understanding, make decisions, and address risks. Question 7 addresses secondary questions 1-3 regarding the ability to define, identify, and apply EI. The seven statements are:

1. An Army unit that routinely uses Exceptional Information will help an organization predict the unforeseen while conducting operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. Reconnaissance units' accurate and rapid reporting of Exceptional Information is necessary for commanders and staffs to exploit emerging opportunities.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. Defining Exceptional Information is crucial for a commander and staff as they seek to fully understand their operational environment.

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. Identifying Exceptional Information will enhance the commander's ability to make timely decisions in tactical operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

5. Applying Exceptional Information is essential in exploiting opportunities and mitigating risk during operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

6. Exceptional Information is key to contributing to the vision and focused planning of staffs.

Strongly Agree Agree Neutral Disagree Strongly Disagree

7. Commanders should develop programs/methods to instill in their subordinates the ability to define, identify, and apply Exceptional Information.

Strongly Agree Agree Neutral Disagree Strongly Disagree

The data collection process was a randomized sample by and through the survey system, Verint® that utilized a stratified sampling technique to execute the survey.

Verint® randomly sampled 20 percent of the CGSOC student population and fifty faculty members with the expectation that at least 10 percent would actually conduct the survey.

By limiting the overall sample size to 20 percent, it was this researcher's belief that there was a greater likelihood that there would be a larger response from willing participants.

Furthermore, receiving a 10 percent response was sufficient in providing a strong sample

size in order to conduct an accurate quantifiable statistical and descriptive analysis of the thesis topic (see Appendix A for the Questionnaire Protocol). Additionally, a quantifiable statistical and descriptive analysis was conducted to determine percentages of participants who possess an understanding regarding the concept of EI versus those who did not.

Limitations to Research

The quantitative questionnaire was designed to gauge responses regarding the concept of EI and its applicability in today's operational environment from CGSOC faculty members and students. As discussed earlier, the researcher's desire was to obtain a 10 percent participation response (approximately 125 personnel) from the CGSOC faculty and student population. That expectation was not met during the course of this study, as only thirty-five of the requested participants responded. Additionally, because a random sampling was utilized to solicit participation, there were no controls established or deemed necessary to ensure that an appropriate number of combat arm or military intelligence personnel took the survey. Therefore, a faculty or service member who may be an expert in a field that would not necessarily be familiar with EI as a term or concept was just as likely to have taken the survey as one from a combat arm or military intelligence background.

Ethical Considerations

Quantitative Questionnaire

There was no deception in this study, as the researcher was only interested in determining percentages of participants who possess an understanding regarding the concept of EI versus those who do not. Additionally, this questionnaire was not

comprised of questions that presented participants with any potential violations of the Uniformed Code of Military Justice or criminal law, nor was any classified material contained in the survey. There were no known risks in the study and none of the information contained in the questionnaire was personally sensitive. Furthermore, no Personally Identifiable Information was included in the survey instrument and all completed forms were collected through Verint®, therefore data storage was not utilized (see Appendix B for the Informed Consent Form). Participants were able to withdraw at any time and had the opportunity to choose not to answer any questions if they were uncomfortable. Documents were kept separate and never stored together with participant data. Additionally, the researcher did not have the means to equate answers on the questionnaire to any participants.

All data was obtained for the purposes of conducting the questionnaire and was considered privileged and facilitated through Verint®. Furthermore, no participants were identified in any presentation of the results. Moreover, the Informed Consent Form will be stored by the Combined Arms Center – Education Human Protections Administrator for three years.

Semi-Structured Interviews

The semi-structured interviews are an extension of this study's literature review for the sole purpose of obtaining expert information from doctrinal, key leader, and analyst perspectives. Two of the interviews were conducted through e-mail, and are cited appropriately, while one interview was conducted in person. All three interviews conducted during the course of this study are categorized as semi-structured interviews

and are not subject to a human protection review because they are an extension of the qualitative literature review.

Summary

The purpose of the mixed method research approach was to compliment the Master of Military Art and Science thesis that focused on the examination of the concept of EI to understand its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. The results of the study, which are detailed in chapter 4, shed light on identified gaps with regards to how Army commanders and staffs identify information. Therefore, that analysis is directed towards recommendations for future research as discussed in chapter 5.

CHAPTER 4

ANALYSIS

Introduction

This mixed methods research study was designed for the purpose of examining the concept of EI to evaluate and determine its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess.

The aim of this study was to examine the concept of EI to determine if reconnaissance organizations within the Army are appropriately designed to facilitate the recognition and exploitation of EI. Therefore, primary and secondary research questions were developed and it was determined that a qualitative literature review in conjunction with a quantitative questionnaire be utilized to identify significant and reoccurring themes that emerged to ultimately help answer the research questions. Additionally, semi-structured interviews were conducted in order to glean information from experts with doctrinal, Army leader, and analyst perspectives. This chapter presents an in-depth analysis of the qualitative review and quantitative questionnaire.

The observations focus on what the literature research and quantitative analysis revealed as it pertains to defining, identifying, and applying EI. Additionally, effort will be given towards analyzing expert feedback received via the semi-structured interviews to determine if there are any connections with emerging themes or data points gleaned as a result of the literature review and survey. Furthermore, the Cynefin Framework was utilized to assist the researcher to better understand EI and add clarity with regards to the outputs of this research study. The Cynefin Framework was a crucial instrument and

framework by which to identify information otherwise be classified as EI and to determine the effects of that information on an organization if it is not properly identified or applied. Furthermore, the Cynefin Framework was a necessary tool in helping to answer the primary and secondary research questions of this study.

Qualitative Literature Review

As stated in chapter 1, the primary research question is: can commanders and staffs mitigate challenges and exploit opportunities in combat operations more effectively using the concept of EI? In order to properly answer that question, a qualitative literature review was determined to be a useful research method. The literature reviewed was extensive and can be grouped into three distinct categories: (1) scholarly writings in the form of monographs from former students at the School of Advanced Military Studies; (2) doctrine; and (3) historical accounts (books and articles) that detailed the concept of EI, either by name or indirectly through specific events spawned by information that would otherwise be considered exceptional. Here is what the literature shows:

Define

There is an extensive amount of confusion and ambiguity in doctrine and within the aforementioned scholarly writings regarding the concept of EI. Furthermore, EI and CCIR are, in many cases, thought to be synonymous with each other due to the critical nature of each term and the crucial impacts caused when information falling into one or both of these categories is ignored or overlooked. As Major Susan P. Kellet-Forsyth alludes to in her monograph titled “Commander’s Critical Information Requirements: The Key to a Commander’s Battle Image,” the definitions of EI and CCIR are too closely

linked creating confusion, and if left unresolved, there may be a possibility that neither concept will be of use in managing information.⁶⁹ Major Kellett-Forsyth was not the only source to offer this type of sentiment regarding EI, especially as it pertains to its relationship to CCIR. In fact, during the course of the literature review, over 50 percent of the monographs and articles that discussed the term of EI, offered similar misgivings about the clarity of the term. Analysis of the literature yielded a shortage of definitions that adequately defined EI in a way that clearly differentiated it from CCIR. FM 6-0, dated 2003, states that EI is to “be treated as an answer to CCIR.”⁷⁰ However, in the very next paragraph it explains that EI is unlike CCIR because it is “not published or explicitly stated.”⁷¹ Upon closer look, one can infer that there is indeed a difference between the terms as stated in this field manual, but unless the time is taken to negotiate the variance, it is easy to see how one might be confused.

During the course of the literature review, the analysis of the research suggests that the definition contained in doctrine does not adequately distinguish it from CCIR. Moreover, as the years have passed, the definition of EI has become more and more vague as it has been presented in doctrine. Furthermore, the research has revealed that the narratives in FM 101-5 and FM 6-0, that once accompanied the definition and offered clarity for its meaning, have disappeared completely. Analysis of the data obtained

⁶⁹ Susan P. Kellett-Forsyth, “Commander’s Critical Information Requirements: The Key to a Commander’s Battle Image” (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, 1993), accessed November 22, 2016, <http://cgsc.contentdm.oclc.org>, 12.

⁷⁰ HQDA, FM 6-0, 207.

⁷¹ *Ibid.*, 208.

through the qualitative literature review suggest that there has been a steady slide regarding the definition of EI in doctrine. This leaves ADRP 5-0 and FM 6-0 C2 as the only two resources remaining which provide a definition for EI. Yet, as stated in chapter 1, ADRP 6-0 clearly states that the term “is no longer defined.”⁷²

Identify

During the course of this study, analysis of the data suggests that forward operating units, such as reconnaissance units, play an integral part in identifying EI. In fact, although the research did not uncover any overt linkage between reconnaissance units and EI through terminology, it did however; highlight the importance that reconnaissance units play in providing commanders with information that would otherwise be regarded as EI. ADRP 3-90, *Offense and Defense*, indirectly attributes the importance of identifying EI to reconnaissance units when describing the ultimate goal of security operations that is “to protect the force from surprise and reduce the unknowns in any situation.”⁷³ Though sparsely discussed in doctrine, examples where reconnaissance units identified EI became clearer as the research shifted focus from that of doctrine’s impact on reconnaissance actions related to EI, to the historical review of events and battles. Furthermore, the majority of the historical sources researched during the course of this study showed that there is a value to having reconnaissance units that can identify EI, therefore providing commanders with the appropriate amount of time to seize

⁷² HQDA, ADRP 6-0, 12.

⁷³ Headquarters, Department of the Army, Army Doctrine Reference Publication 3-90, *Offense and Defense* (Washington, DC: U.S. Government Printing Office, 2012), 93.

opportunities or mitigate risk accordingly. Jeb Stuart's actions, on behalf of the Army of Northern Virginia before the battle of Antietam is one such example.⁷⁴ These revelations regarding the role that reconnaissance units play in identifying EI play a significant role in the attempt to answer the primary research question of this study. In order to do that more effectively, a review had to be executed regarding what the literature revealed concerning a staff's responsibility in identifying EI.

Although there was a lack of literary sources directly and specifically tied to reconnaissance unit involvement regarding identifying EI, the majority of monographs and doctrine reviewed in this study conferred the need for staffs to actively look for EI. FM 6-0 C2 stipulates that staff members must stay alert for EI because that type of information almost always leads to adjustment decisions by the commander.⁷⁵ This sentiment is echoed not only in other versions of doctrine over the past thirty years, but is also highlighted in School of Advanced Military Studies monographs. More interesting to this study however, is the fact that although staffs were implored to identify or recognize information that would otherwise be regarded as EI, very little guidance was found revealing how a staff or reconnaissance unit should do this. A detailed review of field manuals focused on staff operations and processes, as well as those which highlight reconnaissance and surveillance actions, netted little to no insight as to how to train staffs or reconnaissance units to properly identify EI. The absence of such information makes it exceedingly difficult to adequately and thoroughly address the study's primary research

⁷⁴ McPherson, 111.

⁷⁵ HQDA, FM 6-0 C2, 192.

question regarding mitigating challenges and exploiting opportunities utilizing the concept of EI. Historical examples reviewed provided an adequate amount of information concerning the necessity to identify EI.

Of the nearly forty-five sources researched during this study's literature review, sixteen touched on the identification of EI. From those, the clearest pictures or descriptions associated with properly or not properly identifying EI came from historical examples. More specifically, the review of battles fought during the Civil War, World War II, and Korean Conflict provided this study some of the best instances of commanders, staffs, and reconnaissance units properly identifying EI. This is attributed to the amount of time that has elapsed since the conclusion of those wars, which allowed for an extensive amount of literature to be written concerning them, and thus more examples of identifying EI have come to the forefront. Furthermore, time has also given scholars the ability to focus on those crucial events, which led to victory or defeat. Events that, in many cases, were the result of identification of EI.

Apply

Once EI has been identified, it must be applied. During the course of this study, very little has been reviewed which focuses on the actions to be taken once EI has been identified. There were exceptions however. In Major Ike's monograph titled "Bridging the Chasm: A Comparison of the Army's 1997 and 2012 Doctrinal Planning Processes," he assesses that the identification of EI will lead to the initiation of the RDSP.⁷⁶ Although he specifies the importance of identifying EI, he is also relaying the necessity of applying

⁷⁶ Ike, 26.

it in order to allow the commander to make an adjustment decision. This is an example of a non-historical source actually talking about the application of EI, whereas the vast majority of other scholarly sources reviewed overlooked or left out this critical aspect. To this end, history yet again offered the best perspective for analyzing the effects of applying or not applying EI.

Historical examples enabled this researcher to determine whether or not the application of EI actually provided the commanders with opportunities to positively affect their situations. Although the total number of sources that focused on applying EI were relatively few, the consequences of applying or not applying EI were easy to decipher from the texts. It was critical to extrapolate data from historical results because it provided information which could be analyzed to determine if any link exists to the primary and secondary research questions of this study. Furthermore, a historical review of the application of EI and the clear positive and negative consequences pertaining to it helped to address the overall problem of this study and will enable detailed recommendations for future research.

Summary of Qualitative Literature Review

The results of the qualitative literature review show that there is confusion related to the concept of EI in doctrine and scholarly writings. Additionally, the definition associated with EI has diminished over the past thirty years to the point of being “no longer defined”.⁷⁷ Its narrative has also decreased to the point of non-existence. Furthermore, analysis of the literature revealed no specific or direct linkage of

⁷⁷ HQDA, ADRP 6-0, 12.

reconnaissance units to EI, although doctrine and historical examples do refer to reconnaissance as a necessary instrument for providing early warning to commanders and staffs in order to seize opportunities and mitigate challenges. This, of course, indirectly ties reconnaissance units to the identification of EI. Finally, little information was found pertaining to the application of EI once it has been identified. With the qualitative literature review complete, focus of this study shifted to analyzing the results of the quantitative questionnaire.

Quantitative Questionnaire

As discussed in chapter 3, the quantitative questionnaire was designed to meet the intent of soliciting responses to seven questions from CGSOC faculty members and students during the 2016-2017 academic year. The questions of the survey addressed general aspects of the primary research question regarding the use of EI to predict, gain understanding, make decisions, and address risks. This survey was sent to 231 people (182 students and forty-nine faculty members) with thirty-five responses collected (a 15 percent response rate). Their feedback led to a quantifiable statistical and descriptive analysis that determined percentages of participants who possessed an understanding of the concept of EI versus those who did not. There are graphic depictions for each question of the quantitative questionnaire, followed by a detailed descriptive analysis in the ensuing pages.

1. An Army unit that routinely uses Exceptional Information will help an organization predict the unforeseen while conducting operations.

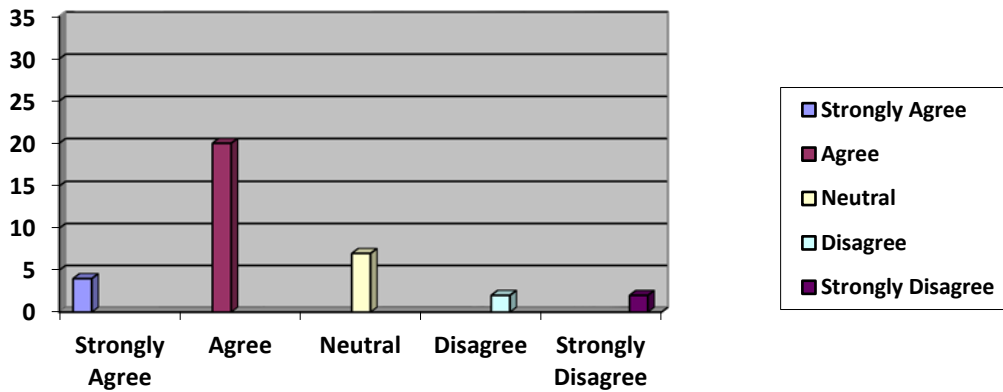


Figure 2. Assisting the Prediction of the Unforeseen through EI

Source: Created by author.

The analysis stemming from the data pertaining to the initial question of this survey shows that nearly 69 percent of the respondents either agree or strongly agree that a unit that routinely utilizes EI during the execution of combat operations will help itself predict the unforeseen. Additionally, 20 percent of the sampled population was neutral while only 11 percent disagreed or strongly disagreed that an organization would benefit from using EI to mitigate unforeseen challenges. Given the strength of the response to this statement, it appears that CGSOC students and faculty members strongly believe that it is necessary for a unit to routinely utilize EI to help predict the unforeseen during the conduct of combat operations.

2. Reconnaissance units' accurate and rapid reporting of Exceptional Information is necessary for commanders and staffs to exploit emerging opportunities.

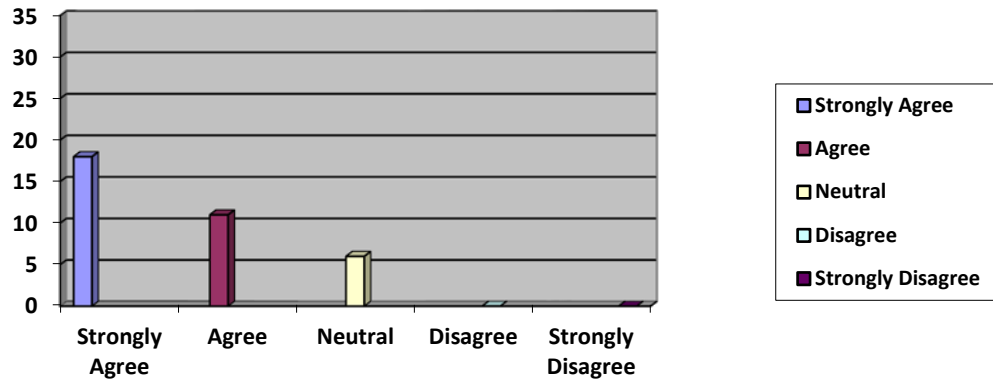


Figure 3. EI's Role in Helping Commanders and Staffs Exploit Opportunities

Source: Created by author.

The results of this question emphatically show that nearly 83 percent of the survey participants believe that the ability of reconnaissance units to accurately and rapidly report EI is necessary for commanders and their staffs to exploit emerging opportunities. Furthermore, only 17 percent of the test population was neutral with regards to the impacts of reconnaissance units and their ability to immediately report EI and assist the commander and staff in exploiting opportunities, while none of the respondents disagreed or strongly disagreed with this question. Therefore, the analysis of the data suggests that the vast majority of the students and faculty members surveyed either strongly agreed or agreed that reconnaissance units play an integral part in an organization's ability to conduct combat operations through their ability to identify EI then rapidly report it. Moreover, the resulting data for this question corroborates themes that emerged from the literature review concerning a reconnaissance unit's role in

identifying EI while subsequently addressing this study's final secondary research question regarding the application of EI.

3. Defining Exceptional Information is crucial for a commander and staff as they seek to fully understand their operational environment.

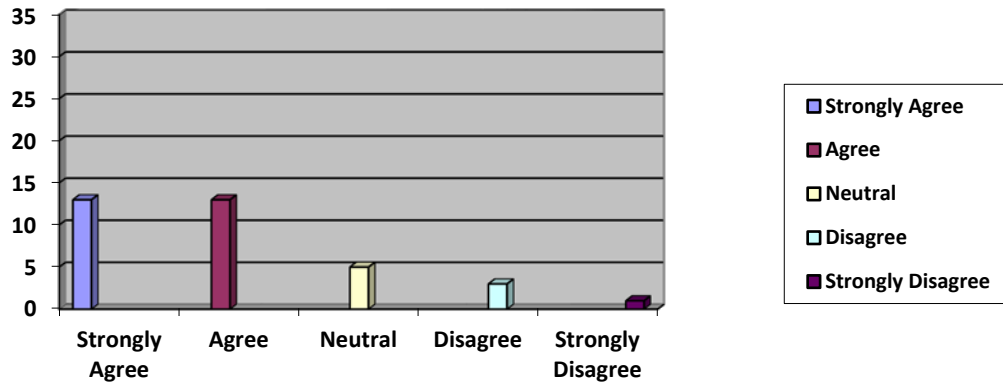


Figure 4. Defining EI Assists Understanding of the Operational Environment

Source: Created by author.

Analysis of the data accrued for this question show a great diversity in respondent answers. This is significant because it is in line with the theme extrapolated from the literature review pertaining to the definition of EI, the importance of defining it and the confusion associated with defining it. The data revealed that 74 percent of the survey recipients either strongly agreed or agreed that it is crucial for commander and staffs to be able to adequately define EI in order to fully understand their operational environment. However, 26 percent of the respondents were either neutral, disagreed, or strongly disagreed with this assertion. The data extrapolated, combined with analysis gleaned from the qualitative literature review, goes a long way in answering the initial secondary

research question that addressed how EI was defined in Army doctrine then used by Army commanders, staffs, and reconnaissance units.

4. Identifying Exceptional Information will enhance the commander's ability to make timely decisions in tactical operations.

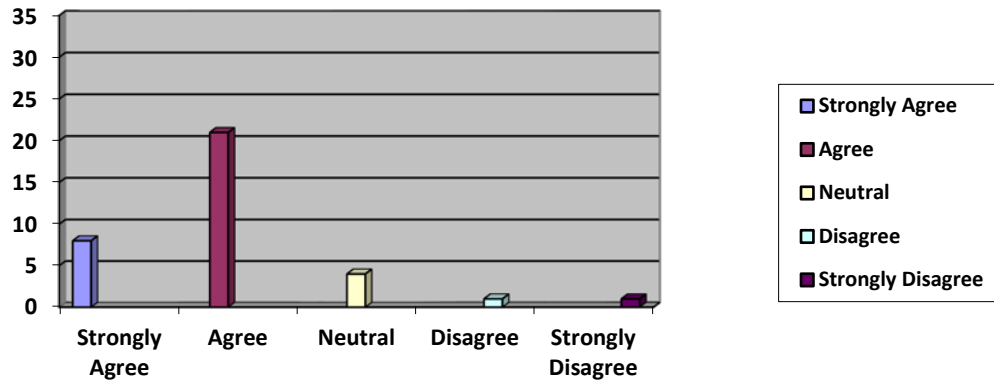


Figure 5. Identifying EI Enables Decisions

Source: Created by author.

Participant responses strongly emphasized a connection between the importance of identifying EI and a commander's ability to understand, visualize, describe, direct, lead, and assess combat operations within their operational environment. The analysis stemming from this question suggests that nearly 83 percent of the survey participants strongly agreed or agreed that identifying EI will assist their commander's ability to make timely decisions. In contrast, only 17 percent of the responses to this question were categorized as neutral, disagree, or strongly disagree. It is possible that the higher percentage of neutral/negative responses can be attributed to the confusion related to the definition of EI. Furthermore, the information gleaned from this question answered, at

least in part, the primary research question of this study: can commanders and staffs mitigate challenges and exploit opportunities in combat operations more effectively using the concept of EI?

5. Applying Exceptional Information is essential in exploiting opportunities and mitigating risk during operations.

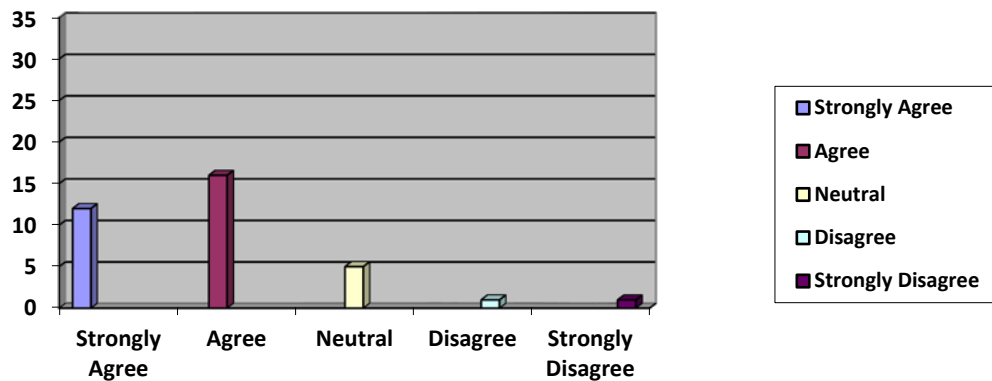


Figure 6. Applying EI is Essential for Exploiting Opportunities and Mitigating Risks

Source: Created by author.

The data results from this statement showed that 80 percent of survey participants either strongly agreed or agreed that the application of EI is essential for an organization to exploit opportunities while mitigating risk and associated challenges. Furthermore, the facts reveal that only 14 percent of the respondents were neutral with regards to the application of EI while less than 6 percent either disagreed or strongly disagreed. The significant takeaway from this particular statistical breakdown is the over-arching confirmation from CGSOC students and faculty members that applying EI is crucial for an organization to exploit operations and mitigate challenges. Furthermore, the

information retrieved from this question addressed the primary research question listed above and the final secondary research question concerning how effectively Army planners and commanders apply EI to operations during planning and execution.

6. Exceptional Information is key to contributing to the vision and focused planning of staffs.

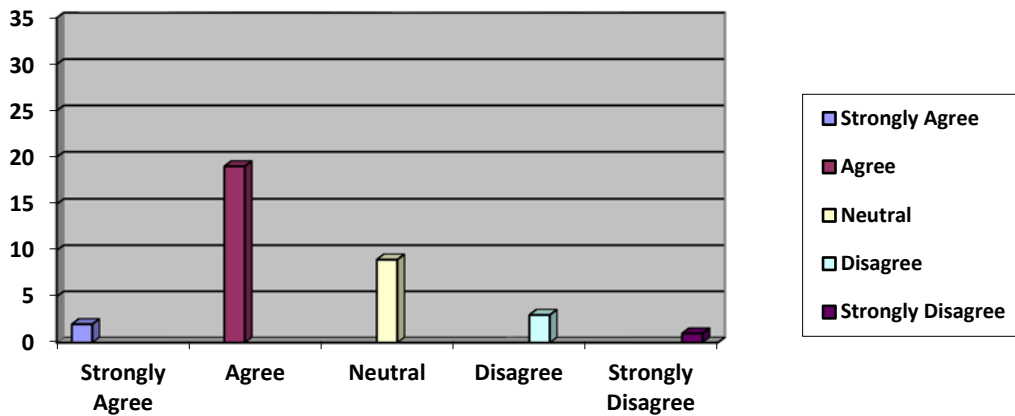


Figure 7. EI Contributes to the Vision and Focused Planning of Staffs

Source: Created by author.

This statement, as with the previous five, addressed general aspects of the primary research question concerning the use of EI to predict, gain understanding, make decisions, and address risks. In addition to that aim, it sought to glean answers from the respondents regarding whether or not EI is necessary for contributing to the vision and focused planning for staffs. The results of this statement show that 60 percent of the survey participants strongly agreed or agreed that EI was in fact key to contributing to the vision and focused planning of staffs. This was a lower percentage of those who strongly

agreed or agreed than in previous statements and may be attributed to the lack of understanding of the term and its effects on a staff. In contrast, close to 26 percent of those who answered were neutral, while 14 percent (a significantly higher percentage) disagreed or strongly disagreed with the statement above.

7. Commanders should develop programs/methods to instill in their subordinates the ability to define, identify, and apply Exceptional Information.

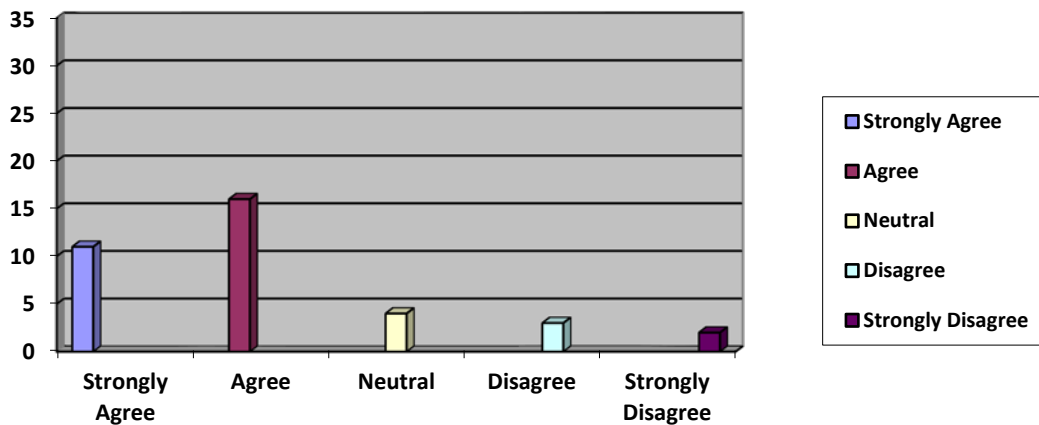


Figure 8. Commanders’ Roles in Developing Programs and Methods to Help Subordinates Define, Identify, and Apply EI

Source: Created by author.

This statement addressed this study’s secondary questions R1-R3, mentioned in chapters 1 and 3, regarding the ability to define, identify, and apply EI. The analysis of this statement revealed that 77 percent of those that responded believed that commanders are responsible for developing programs or methods in their subordinates to define, identify, and apply EI. Additionally, 11 percent were neutral and 11 percent either disagreed or strongly disagreed with the above premise.

Summary of Quantitative Questionnaire

The results of the quantitative questionnaire overwhelmingly reveal that the vast majority of respondents either strongly agreed or agreed that the term, EI, as well as the ability to identify and apply it, is crucial to the success of an organization. Furthermore, the evidence from this survey suggests that commanders incur responsibility to train their unit to adequately identify and apply EI. These assertions were validated through the analysis of responses to seven statements aimed at answering this study's primary and secondary research questions. Additionally, a graph and table were created to illustrate the findings associated with the quantitative survey. Figure 9 depicts responses of survey participants, in the aggregate, that either strongly agreed or agreed with each statement, while figure 10 shows the correlation between the primary and secondary research questions with the statements of the survey.

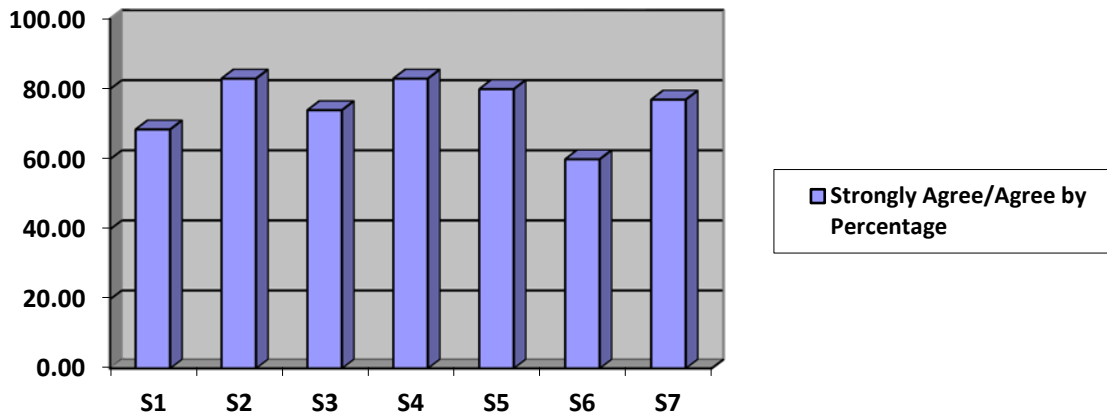


Figure 9. S1-7 Analysis in the Aggregate

Source: Created by author.

The data depicted in figure 9 clearly shows that a high percentage of survey participants selected strongly agree or agree in each of the statements. The data also suggests that the vast majority of CGSOC students and faculty members who took this survey supported the view that the concept of EI is still relevant in helping commanders and their staffs mitigate challenges and exploit opportunities in combat operations. Figure 10 seeks to confirm or deny the veracity of the previous statement by depicting the relationship between the survey's statements to the primary and secondary research questions of this study. Along the y-axis, PRQ represents the primary research question, while R1, R2, and R3 represent secondary research questions one through three. Along the x-axis, S1 thru S7 represent each one of the survey's statements. The green colored cells depict the statements that are strongly associated with the primary and/or secondary research questions, while amber colored cells highlight those statements that are marginally linked. Red cells depict statements that did not address primary or secondary research questions.

PRQ	Green	Green	Yellow	Yellow	Green	Green	Green
R1	Yellow	Yellow	Green	Red	Red	Red	Green
R2	Green	Yellow	Red	Green	Yellow	Yellow	Green
R3	Yellow	Green	Yellow	Yellow	Green	Green	Green
	S1	S2	S3	S4	S5	S6	S7

Figure 10. Survey Questions and How They Addressed Primary and Supporting Research Questions

Source: Created by author.

Note:

- = Strongly Associated with Primary and/or Secondary Research Questions
- = Marginally Associated with Primary and/or Secondary Research Questions
- = Not Associated with Primary or Secondary Research Questions

Figure 10 reveals an obvious correlation between each of the statements of the survey with the research questions as every statement either strongly or marginally addressed the primary research question. Additionally, the data suggests a considerable overlap and redundancy between the statements and research questions that signifies that the survey adequately addressed this study's overall problem.

Semi-Structured Interviews

The semi-structured interviews were an extension of this study's literature review and focused on retrieving expert perspectives in three areas. As discussed in chapter 3, the first interview sought to determine the evolution of EI as a term and concept in doctrine, while the second sought to gather insight from a senior leader's point of view. The third semi-structured interview centered on gleaning insight from an analyst point of view. What follows is a brief summary of each interview.

Doctrine

Mission Command Division Chief at the Combined Arms Doctrine Directorate, Mr. Charles R. Schrankel, provided a great deal of information regarding the term and concept of EI within doctrine. The significant takeaway from the discussion with Mr. Schrankel was that doctrinal authors received guidance in 2015 to "rescind as many formally defined terms as possible."⁷⁸ This was done in order to minimize the number of defined terms in doctrine.⁷⁹ As a result, EI was deemed vulnerable and is no longer

⁷⁸ Schrankel.

⁷⁹ Ibid.

defined in doctrine.⁸⁰ Furthermore, Mr. Schrankel offered that concepts do not lose their importance because they are “no longer defined or have been rescinded .⁸¹ His expert perspective was invaluable as he provided a direct answer to this study’s initial secondary research question regarding how the term EI is defined in Army doctrine and used by Army commanders, planners, and reconnaissance units.

Senior Leader

Lieutenant General Herbert R. McMaster’s long and storied career in the Army, from a senior leader perspective and as a former commander of the 3rd Armored Cavalry Regiment, was invaluable. Lieutenant General McMaster not only echoed the sentiments of Mr. Charles Schrankel regarding the importance of EI, but he offered that acknowledging there is uncertainty in combat was crucial also.⁸² Additionally, Lieutenant General McMaster discussed creating opportunities through identification of EI when developing the situation.⁸³ An analysis of LTG McMaster’s comments regarding the role of EI in combat operations clearly reveals that the term and concept are still applicable in today’s operational environment. Furthermore, his perspectives concerning reconnaissance assets fighting for information helped to answer secondary research

⁸⁰ HQDA, ADRP 6-0 C2, 12.

⁸¹ Schrankel.

⁸² LTG Herbert R. McMaster, National Security Advisor, Former Director of the Army Capabilities Integration Center, e-mail interview with author, February 9, 2017.

⁸³ Ibid.

question number two, which focused on how Army planners, reconnaissance units, and commanders identify EI during the planning process and throughout mission execution.

Analyst

Rob B. McClary, Ph.D., the seminar leader for the University of Foreign Military and Cultural Studies and intuitive decision-making expert, expressed the need for staffs to guard against confirmation bias during the planning process and execution of combat operations.⁸⁴ Dr. McClary reasoned that since EI is unexpected, it goes against the mind's natural tendency to accept it. Thus, staffs sometimes overlook EI altogether or try to fit the emerging opportunity or threat into the framework already developed.⁸⁵ This was a recurring theme during the course of the interview. Moreover, Dr. McClary expressed the importance of keeping the mind open to that which is unexpected.⁸⁶ Dr. McClary's insights provided a unique perspective to this study and in so doing, helped to answer the primary research question that explored whether or not commanders and staffs could mitigate challenges and exploit opportunities in combat operations more effectively using the concept of EI.

Summary of Semi-Structured Interviews

The semi-structured interviews provided depth to this study in the form of expert perspectives from three different focus areas. Additionally, analysis of the interviews

⁸⁴ McClary.

⁸⁵ Ibid.

⁸⁶ Ibid.

suggested that, although the experts were from different fields and focus areas, they all expressed a belief that EI is still a relevant and important concept. Furthermore, the analysis of the data suggests that there is a great importance attributed to the identification of EI from a reconnaissance and staff perspective in order to facilitate the successful completion of combat operations.

Conclusion

The analysis of the data suggests that there are direct connections between the responses gleaned from the quantitative questionnaire with emerging themes identified from this chapter's qualitative literature review and expert testimony gleaned from the semi-structured interviews. Those observations will be the subject of chapter 5 as the investigator makes recommendations for further research.

CHAPTER 5

RECOMMENDATIONS FOR FURTHER RESEARCH

Introduction

The purpose of this study was to examine the concept of EI to evaluate and determine its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. A mixed methods approach utilizing a qualitative literature review combined with a quantitative questionnaire distributed to human participants, and semi-structured interviews were utilized to provide observations and themes that will be outlined and discussed in this chapter. Moreover, those observations and themes are the basis for the section on recommendations for further research. The recommendations listed will hopefully lead to further research and analysis oriented on filling any and all gaps identified in the course of this study. Furthermore, the recommendations for further research will follow the U.S. Force Management Construct of DOTMLPF, which the Army utilizes to find solutions in the categories of doctrine, organization, training, materiel, leadership and education, personnel, and facilities.⁸⁷ The researcher will utilize this construct as an organizational tool to frame the recommendations alluded to above.

⁸⁷ Headquarters, Department of the Army, Army Doctrine Publication 1-01, *Doctrine Primer* (Washington, DC: U.S. Government Printing Office, 2014), 9.

Observations

The following observations are by no means all of those gleaned from this study, but they are the overarching themes that emerged from the qualitative literature review and the quantitative questionnaire.

1. EI has been degraded in doctrine over the past thirty years, which has led to non-understanding and confusion in the Army community.

2. There is no direct linkage between reconnaissance units and EI, although the evidence suggests that they are a crucial instrument in identifying EI because of their disposition on the battlefield and their ability to report rapidly and accurately.

3. Sixteen of the forty-four sources reviewed discussed identifying EI either directly or indirectly.

4. Identifying EI is crucial to enhance the commander's ability to make timely decisions.

5. There is minimal information in doctrine concerning the application of EI, but historical data suggests that applying EI is essential.

6. A staff plays a crucial role in helping a commander mitigate challenges and exploiting opportunities through the use of EI.

7. There was a lack of information concerning the education and training of personnel and units in identifying and applying EI.

8. Commanders should develop programs and/or methods to instill in their subordinates the ability to define, identify, and apply EI.

The overall and most-compelling observation extrapolated from this study is the confusion associated with the concept of EI. This confusion can be attributed to the

definition's decline over the past thirty years, as well as the minimalized narrative associated with the definition. Additionally, the inability of Army leaders to identify and apply EI is a predominant theme extrapolated from this study and may be a symptom attributed to the confusion associated with the term. Furthermore, the data also suggests that leaders have an obligation to train subordinates but no insight was identified as to how Army leaders should accomplish this admirable goal. The aforementioned observations lead to the following recommendations.

Recommendations for Further Research

The following recommendations will be organized and follow the Training Management Construct, DOTMLPF as discussed in the introduction of this chapter with one caveat.⁸⁸ The following are recommendations for non-material solutions; therefore, the Material (M) portion of the above construct will not be utilized.

Doctrine (D): The findings obtained through this research show a degradation in the definition of EI over the past thirty years to the point where it is no longer officially defined in doctrine.⁸⁹ Furthermore, the analysis suggests a direct link between the aforementioned degradation and the confusion surrounding the term by military scholars and CGSOC students. Yet, the results of this study's quantitative questionnaire clearly suggest that EI is necessary in exploiting opportunities and mitigating risk during combat operations. Therefore, this researcher recommends that further research be directed

⁸⁸ HQDA, ADP 1-01, 9.

⁸⁹ HQDA, ADRP 6-0 C2, 12.

towards determining whether or not the term should be defined and if a supporting narrative should accompany the concept in doctrine.

An additional recommendation for further research should be directed towards analyzing what types of information drive, feed, or inform adjustment decisions and execution decisions. ADRP 5-0 states, “execution decisions involve options anticipated in the order,” while “adjustment decisions involve options that commanders did not anticipate.”⁹⁰ Therefore, the commander can foresee information that will require an execution decision, but an adjustment decision is in response to an unanticipated opportunity or threat.⁹¹ These are descriptions of information that feed or inform execution and adjustment decisions and are seemingly synonymous with CCIR in relationship to the Military Decision Making Process as EI is with RDSP. If this is true, then further research must be expended to determine why EI, as a term and concept that seemingly informs adjustment decisions, is being removed from doctrine.

Organization (O): Data extrapolated from this study reveals that reconnaissance units are an integral part in helping the commander exploit emerging opportunities through the identification of EI. Therefore, further study should be oriented to determining whether reconnaissance units’ capabilities and organizational design are adequate to fight for information and identify EI. A closer look at organizational constructs of reconnaissance units in the recent past is a recommended starting point.

⁹⁰ HQDA, ADRP 5-0, 62.

⁹¹ Ibid.

Additional recommendations concerning the use of reconnaissance units and identifying EI are discussed later in this chapter.

Training (T): The findings gathered during the course of this study revealed that very little was discussed concerning the training of staffs and subordinate units on how to define, identify, and apply EI. Analysis of the data does suggest however, that staffs and reconnaissance units are crucial pieces in predicting the unforeseen while conducting operations. Therefore, this researcher recommends that effort be directed to determine if training needs to be developed to help staffs and reconnaissance units define, identify, and apply EI. If that research confirms the necessity to train staffs and reconnaissance units to define, identify, and apply EI then a study focused on how to execute that training would be in order. Dr. Rob McClary, seminar leader at the University of Foreign Military and Cultural Studies and an authority on intuitive decision-making, described the need for further training stating that since EI is unexpected, it goes against the mind's natural tendency to seek things that will confirm beliefs. Therefore, one must learn to shed expectations long enough to explain things.⁹²

Additionally, because Army units are conducting operations in a more fluid and complex environment, a research study focused on analyzing the impacts of single instances of EI versus multiple emergences are recommended. This study may determine the effects of having to endure multiple emergences of EI on a staff while simultaneously assessing their ability to conduct mission command.

⁹² McClary.

Leadership (L): Analysis of the findings of this study shows that reconnaissance units and staffs are crucial to identifying EI. Furthermore, data collected from the quantitative survey revealed that commanders should develop programs or methods to instill in their subordinates the ability to define, identify, and apply EI. Therefore, further research should be oriented towards analyzing whether or not commanders are responsible for training members of their organization on how to identify and apply EI. Furthermore, an analysis of whether or not this training should be part of the Center for Army Leadership Annual Survey of Army Leadership commander assessment is recommended.⁹³

Further research is recommended to determine the role of Education, a sub-component of Leadership, in defining, identifying, and applying EI. Such a study could determine whether or not EI should be included in the professional military education curriculum for commissioned and non-commissioned officers. Furthermore, research data suggests that the concept of EI is relevant in today's operational environment, therefore educating members of organizations and units in the schoolhouse about EI and why it is important may be advantageous to the success of combat operations in the future.

Personnel (P): The findings obtained during this study do not directly name, but indirectly associate reconnaissance units as being the primary instrument in identifying EI. Furthermore, analysis received from the quantitative questionnaire shows that CGSOC students and faculty members believe that reconnaissance units' ability to

⁹³ Ryan P. Riley, Josh Hatfield, Tyler E. Freeman, John J. Fallesen, and Katie M. Gunther, Technical Report 2015-01, *2014 Center for Army Leadership Annual Survey of Army Leadership (CASAL): Military Leader Findings* (Fort Leavenworth, KS: Center for Army Leadership, June 2015), 3.

accurately and rapidly report EI is necessary for commanders and staffs to exploit emerging opportunities or mitigate the effects of impending threats. Therefore, it is recommended that further research be oriented towards verifying if reconnaissance units are most likely to identify EI on behalf of a commander. If so, then additional effort may be directed towards resourcing and training those units.

Facilities (F): A review of the Combined Training Centers and schoolhouse facilities is recommended to determine their ability to enable training that promotes the identification and application of EI. Of course, a strong argument could be made that the Combined Training Centers already facilitate this training by their very make-up and the purpose for which they serve, which is to stress brigade and battalion staffs. An in-depth review of these facilities however may reveal gaps in an installation's ability to test a staffs' creativity or a reconnaissance units' capability to sense or predict the unforeseen.

The sample size of this survey's quantitative questionnaire was extensive given the size of the student and faculty population at the Combined Arms Center at Fort Leavenworth, KS. However, a more extensive and wide-ranging survey distributed to a more-robust tactical audience focused on determining the suitability and feasibility of utilizing the concept of EI from both a staff and reconnaissance standpoint is recommended to either validate, minimize, or replicate the findings in this study.

Conclusion

The overall purpose of this study was to examine the concept of EI to evaluate and determine its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. Based on the investigation conducted, which took the form of a qualitative literature review and

quantitative questionnaire, this researcher believes that the evidence strongly suggests that the concept of EI is relevant and quite significantly impacts a commander's ability to fully understand the operational environment and carry out combat operations. Furthermore, this study adequately addressed the primary research question as stated in chapter 1 and effectively answered the primary and secondary research questions. In an era where the enemy often presents itself in ways, time, and space that is often unpredictable, the concept of EI may offer the commander the best way to mitigate challenges and exploit opportunities on the battlefield. In order to do so however, great focus and effort should be directed towards defining EI, then training staffs and subordinate reconnaissance units in how to best identify then apply it. The world is becoming more complex and the rate of change is increasing, not decreasing. Therefore, the amount of mysteries faced by Army leaders is likely to rise. In a time when these realities are true, why would Army leaders accept a doctrinal landscape that did not include EI?

APPENDIX A
QUESTIONNAIRE PROTOCOL

Questionnaire Pre-Brief:

My name is MAJ Jason Wolfe. Thank you for participating in this questionnaire on faculty and student understanding of the role of Exceptional Information (EI) and its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. Exceptional Information, as stated by ADRP 5-0, *The Operations Process*, "is information that would have answered one of the commander's critical information requirements if the requirement for it had been foreseen and stated as one of the commander's critical information requirements." The 1997 edition of FM 101-5, *Staff Organizations and Operations* further explained, "Exceptional information signals the occurrence of one or more unpredictable, extraordinary events, such as an unforeseen opportunity for success or an early warning of an impending emergency."

Your participation in this questionnaire is voluntary and you can decline to answer any question. You can also withdraw from the survey at any time. I am very interested in understanding your point of view on this subject. The survey system administering this questionnaire will ensure your anonymity by removing all personal information so I, as the primary investigator conducting the survey, will not be able to identify you. Continuing with this questionnaire constitutes your consent to participate.

Please take the time to circle the answer which most closely matches the degree of importance you feel corresponds to each question:

1. An Army unit that routinely uses Exceptional Information will help an organization predict the unforeseen while conducting operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. Reconnaissance units' accurate and rapid reporting of Exceptional Information is necessary for commanders and staffs to exploit emerging opportunities.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. Defining Exceptional Information is crucial for a commander and staff as they seek to fully understand their operational environment.

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. Identifying Exceptional Information will enhance the commander's ability to make timely decisions in tactical operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

5. Applying Exceptional Information is essential in exploiting opportunities and mitigating risk during operations.

Strongly Agree Agree Neutral Disagree Strongly Disagree

6. Exceptional Information is key to contributing to the vision and focused planning of staffs.

Strongly Agree Agree Neutral Disagree Strongly Disagree

7. Commanders should develop programs/methods to instill in their subordinates the ability to define, identify, and apply Exceptional Information.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Survey Out-Brief:

Thank you very much for your time. As a reminder, the survey system administering this questionnaire will ensure your anonymity by removing all personal information so I, as the primary investigator, conducting the study will not be able to identify you. I will attempt to maintain your confidentiality to the greatest extent

possible, but I cannot guarantee your confidentiality especially if you voluntarily share your questionnaire content with others.

APPENDIX B

INFORMED CONSENT FORM FOR QUANTITATIVE QUESTIONNAIRE

Quantitative Questionnaire Regarding Exceptional Information

The research method for this thesis is a mixed method research approach using a qualitative literature review with a quantitative questionnaire distributed to human participants.

Purpose

You are invited to participate in a research study that is part of thesis requirements at the Command and General Staff College at Fort Leavenworth, KS. The purpose of the mixed method research approach is to compliment the Master of Military Art and Science thesis that will focus on the examination of the concept of Exceptional Information to understand its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess. I, as the proprietor of questionnaire, will use the survey system, Verint®, which will utilize a stratified sampling technique to randomly select CGSOC faculty and students to participate in the survey. Once the data is collected, a quantifiable statistical data analysis will be conducted to determine percentages of participants who possess an understanding regarding the concept of Exceptional Information versus those who do not. There is no deception in this study. I am only interested in determining percentages of participants who possess an understanding regarding the concept of Exceptional Information versus those who do not.

Participation Requirements

I am asking you to participate in a qualitative questionnaire. The questionnaire will consist of seven questions concerning the concept of exceptional information. The first six questions of the survey will address general aspects of the primary research question addressing the use of exceptional information to predict, gain understanding, make decisions, and address risks. Question 7 addresses the secondary questions regarding the ability to define, identify, and apply exceptional information. The time allotted for each participant to finish the questionnaire is unlimited. The questionnaire will not comprise of questions that will present participants with any potential violations of the Uniformed Code of Military Justice or criminal law, nor will any classified material be contained in the survey.

Potential Risks/Discomfort

There are no known risks in this study and none of the information contained in this questionnaire is personally sensitive. Additionally, no Personally Identifiable Information will be included in the survey instrument and all completed forms will be collected through Verint®, therefore data storage will not be utilized. You may withdraw at any time and you may choose not to answer any questions you feel uncomfortable answering.

Potential Benefit

There are no direct benefits to you to and I will offer no compensation or incentives for your participation in this questionnaire. The results of this questionnaire will assist the researcher by shedding light on identified gaps with regards to how Army

commanders and staffs identify information. By doing so, greater effort can be directed towards filling those gaps through further research into the role of EI as it pertains to doctrine as well as its implementation into institutional, organizational, and operational processes. Documents with your name, such as this form, will never be stored together with your data. Additionally, I will not have the means and therefore will not be able to equate your answers on the questionnaire to this consent form.

Anonymity/Confidentiality

All data obtained about you will be for the purposes of conducting the questionnaire and will be considered privileged and facilitated through Verint®. You will not be identified in any presentation of the results. All data collected in this study is confidential and is coded so that your name is not associated with them. Additionally, the coded data will be made available to me as I conduct the analysis associated with this study. This form will be stored by the Combined Arms Center – Education Human Protections Administrator for three years. The Army Human Subjects Protection Office or a designated Department of Defense representative may review this form to ensure compliance with Department of Defense regulations.

Right to Withdraw

Participation in this survey is voluntary. You have the right to cease completing the questionnaire at any time without penalty. You have the right to decide to not answer questions when filling out the questionnaire if you do not feel comfortable answering them or stop all together. If you withdraw from the survey, I will not use any data

collected from you and you will suffer no penalties whatsoever from your withdrawal. I will be happy to answer any question that may arise about this study.

Contacts for Additional Assistance

Please direct your questions or comments about this interview to (contact information deleted). If you have any questions or concerns about the conduct of this questionnaire, please contact the Command and General Staff College (contact information deleted) or the Combined Arms Center – Education Human Protections Administrator CAC-EHPA (contact information deleted).

Signatures

I have read the above description of the Quantitative Questionnaire regarding Exceptional Information: a mixed method research approach using a qualitative literature review with a quantitative questionnaire distributed to human participants, and understand the conditions of my participation.

My signature indicates that I agree to participate in the study.

Participants printed

Name: _____

Participants signature:

Researcher's name: MAJ Jason R. Wolfe

Researchers Signature: _____

Date: _____

APPENDIX C

SAMPLE E-MAIL INTRODUCTION LETTER TO STUDENTS

To: Faculty and Student Population

Subject: An opportunity to share your knowledge and understanding regarding the concept of Exceptional Information.

Body: Would you please consider taking a few minutes out of your busy schedule (ten to fifteen) in order to share your understanding of the role of Exceptional Information and its relevance in today's operational environment and its impacts on a commander's ability to understand, visualize, describe, direct, lead, and assess.

During the research and development of this study, common themes emerged regarding how commanders, their staffs, and reconnaissance units define, identify, and apply exceptional information. These themes gave birth to this study's primary research question: can the concept of exceptional information be more effectively used by commanders and staffs to mitigate challenges and exploit opportunities in combat operations?

This is an opportunity for students to assist the researcher by shedding light on identified gaps with regards to how Army commanders and staffs identify information. By doing so, greater effort can be directed towards filling those gaps through further research into the role of exceptional information as it pertains to doctrine as well as its implementation into institutional, organizational, and operational processes, and to express their perceptions of why these themes emerged based on their personal experiences.

If you are interested in participating in this questionnaire, please respond to this e-mail or call the number below. Participants will be required to sign a consent form to adhere to ethical standards of scholarly research.

If you have any questions about this study, please contact me at the phone number below.

I would be happy to answer any question you might have about this study. Please direct your questions or comments to (contact information deleted).

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